

MATHS
ADDS

21st Edition

CAREERS GUIDE

SHAPE YOUR FUTURE WITH MATHS & STATS



A U S T R A L I A N M A T H E M A T I C A L S C I E N C E S I N S T I T U T E



Professor Michelle Simmons

UNSW, 2018 Australian of the Year

ADVICE FOR YOUR FUTURE

MATHEMATICS IS A GATEWAY to understanding the world. It's a universal language that reduces problems of huge complexity into manageable parts. It is also a powerful and vital tool for the creation of new technologies. Without mathematics, my own field of quantum physics would be impossible. Calculus, linear algebra, differential equations and probability and statistics are all essential to my research in quantum computing.

As 2018 Australian of the Year, I hope to use my voice to inspire a new generation of Australians to pursue science and the exciting opportunities offered by mathematics.

Our society is increasingly reliant upon mathematics and data analysis, and people with advanced quantitative skills are in high demand. Yet the proportion of Australian Year 12 students choosing advanced maths declined by 32 per cent over the past 20 years. That's sad news for Australia, but it's a massive opportunity for anyone who has bucked the trend.

A quick glance through this issue of Maths Adds reveals how mathematical skills can prepare you for exciting opportunities across nearly every industry and knowledge sector. These wonderful stories highlight that you don't have to be a quantum physicist to benefit from the study of mathematics. They show that mathematics and statistics are valuable well beyond scientific research. They also reinforce the under-appreciated truth that mathematics can take you in surprising directions.

To students making plans for the future, my advice to you is simple. I've said many times that I think it's important to do what's hard, to place high expectations upon yourself, to take risks, and to do something that matters. Mathematics definitely fits these criteria. It's a subject that will challenge you, take you to the frontiers of understanding, expand the scope for your creativity, and open endless possibilities.

UNSW Scientia Professor Michelle Simmons was recently elected as Fellow of the Royal Society.

MATHS ADDS CAREERS GUIDE

A STUDENTS GUIDE TO THE JOB MARKET

Welcome to the 21st edition of Maths Adds, your guide to careers requiring mathematics and statistics. Just about every area of employment will depend, at some point, on handling, interpreting and modelling data – the kind of expertise offered by people with training in the mathematical sciences.

This year we've found some of the most exciting mathematics and statistics job ads in technology, science, education, engineering, finance and more.

Students, teachers and parents can discover more about diverse mathematics and statistics pathways on **careers.amsi.org.au**. This website brings together AMSI's popular careers resources to provide even more job listings, pathways advice, classroom materials and inspiring profiles and videos.

Whether you have a plan or not, don't wait to find out how skills in mathematics and statistics can transform your future career options!

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[AMSI.ORG.AU](https://amsi.org.au)



[LATROBE.EDU.AU/MATHSTATS](https://latrobe.edu.au/mathstats)

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SHAPE UP WITH MATHS

LEVEL 1

**ACCESSIBLE THROUGH
YEAR 12 COMPLETION
OR CERTIFICATE I / II**

BANK TELLER *BARTENDER* **DEBT
COLLECTOR** *HOSPITALITY WORKER*
INSURANCE AGENT *PAYROLL OFFICER*
RETAIL BUYER *SALES ASSISTANT*
TRADES ASSISTANT

LEVEL 2

**ACCESSIBLE THROUGH
DIPLOMA OR CERTIFICATE III / IV**

AIRCRAFT MAINTENANCE ENGINEER
DRAFTSPERSON **BIOMEDICAL TECHNICIAN**
CONSTRUCTION MANAGER **CARTOGRAPHER**
CIVIL ENGINEERING TECHNICIAN **COMPUTER
TECHNICIAN** *DATA PROCESSOR* **ELECTRICIAN**
INSURANCE CLERK **LABORATORY WORKER**
LINE MECHANIC **MECHANICAL TECHNICIAN**
PERSONAL TRAINER **PROCUREMENT MANAGER**
PRODUCTION MANAGER **TELCO ENGINEER**

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*Head of Department, Mathematics
& Statistics, La Trobe University*

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& Communications, AMSI*

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MATHS & STATS DEGREES

The AMSI website includes links to many Australian university mathematics and statistics departmental web pages where you can discover the best course for you. amsi.org.au/membership/members

AMSI CAREERS ONLINE

AMSI's Careers website is a one-stop shop for information about careers that use mathematics. Explore more JOBS ONLINE and read about real people who use MATHS every day in their jobs at careers.amsi.org.au

AND STATS

LEVEL 3

**ACCESSIBLE THROUGH
BACHELOR DEGREE**

ACCOUNTANT AIR TRAFFIC CONTROL
ANALYST **BIOTECHNICIAN** BUSINESS
ANALYST **COMPUTER SYSTEMS ANALYST**
COMMERCIAL UNDERWRITER
CRYPTOLOGIST DATA ANALYST
ECOLOGIST GAME DESIGNER **INDUSTRIAL**
DESIGNER INSIGHTS ANALYST **MARINE**
SURVEYOR MARKET RESEARCH ANALYST
METEOROLOGIST NURSE **OPTOMETRIST**
PHARMACIST **PHARMACOLOGIST** PILOT
QUANTITY SURVEYOR SOFTWARE ENGINEER
SYSTEMS ANALYST TEACHER **VETERINARIAN**
WEB ANALYST **WEB DEVELOPER**

LEVEL 4

**ACCESSIBLE THROUGH
BACHELOR DEGREE &
POSTGRADUATE**

ACTUARY AERONAUTICAL ENGINEER
ARCHITECT AUDITOR **ASTROPHYSICIST**
BIOINFORMATICIAN **BIOMEDICAL ENGINEER**
BIOSTATISTICIAN **CHEMICAL ENGINEER** CIVIL
ENGINEER **DATA SCIENTIST** ECONOMIST
ELECTRICAL ENGINEER ENVIRONMENTAL
ENGINEER **FINANCIAL ANALYST** GEOLOGIST
GEOMATICS ENGINEER GEOPHYSICIST
GEOSPATIAL SPECIALIST MECHANICAL
ENGINEER **MARINE ENGINEER**
MATHEMATICIAN **METEOROLOGIST** MINING
ENGINEER **NAVAL ARCHITECT** OPERATIONS
RESEARCH ANALYST **PHYSICIST** QUANTITATIVE
ANALYST **RESEARCH SCIENTIST** RISK
ANALYST **ROBOTICS ENGINEER** STATISTICIAN
UNIVERSITY LECTURER

MORE JOB ADS

The links below are examples of online resources for job seekers. Search using keywords such as 'mathematics' and 'statistics' and see where a degree in mathematics and statistics can take you!

- Adzuna
CareerOne
Indeed
Jobsearch
Seek
- adzuna.com.au
careerone.com.au
indeed.com.au
jobsearch.gov.au
seek.com.au

MATHS & STATS AT WORK

Need more inspiration? Use the links below to discover more about mathematics and statistics futures.

CAREERS RESOURCES

- careers.amsi.org.au
maa.org/careers/career-profiles
mathscareers.org.uk
ams.org/careers

MORE USEFUL WEBSITES

- Australian Mathematical Society
austms.org.au/careers
- Statistical Society of Australia
statsci.org/careers.html
- My Future – career information & exploration
myfuture.edu.au



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of ADELAIDE

CREATE AND INNOVATE WITH MATHEMATICAL SCIENCES AT ADELAIDE

Learn mathematics and statistics. The universal language to model, analyse and understand today's complex world.

Creativity and innovation

With mathematics you can play a vital role in tackling real-life issues, in Australia and beyond.

You will be prepared for rewarding and flexible careers in diverse areas such as finance, cyber security, health and data science, as well as careers in research.

Study with us

- Bachelor of Mathematical Sciences
- Bachelor of Mathematical Sciences (Advanced)
- Bachelor of Mathematical and Computer Sciences

The University of Adelaide

We are ranked in the top 1% of universities worldwide.*

Learn from our passionate lecturers and world-leading researchers in Pure Mathematics, Applied Mathematics and Statistics.

Our graduates are highly regarded for their creativity, problem solving abilities and research skills, and are sought after by a wide range of employers.

School of Mathematical Sciences

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 twitter.com/MathsUOA

 ecms.adelaide.edu.au/maths

*Times Higher Ed and QS ranking

BIOSTATISTICS & BIOINFORMATICS

Making sense of big data

Biostatisticians and bioinformaticians are specialists in the evaluation of biological data as scientific evidence. Often working with large and complex data sets, they provide the mathematical and statistical framework to interpret scientific data generated in biology, medical sciences, public health and other health sciences.

JOB KEYWORDS

BIOSCIENCE - BIOSTATISTICS - BIOINFORMATICS - INFORMATICS
DATA SCIENCE - DATA ANALYTICS - MACHINE LEARNING - OPTIMISATION
SCIENCE - RESEARCH MODELLING - RESEARCHER

MARZIEH MOGHADAM

PhD STUDENT, LA TROBE UNIVERSITY

La Trobe University and Australian Mathematical Sciences Institute Winter School 2017 student, Marzieh Moghadam, is well aware of the commercial value of mathematics, particularly within the biomedical sector.

Currently completing a PhD, her research focuses on machine learning and deep learning approaches to optimise cell recognition accuracy. An area of increasing focus as researchers grapple with large volumes of data, this work is maximising capacity to apply this critical information.

“ The ability to track the immune system means we can check the trend of immune cells in patients with conditions such as HIV. ”

As well as rapid identification and accurate tracking of cancer cell types to improve diagnostics and test treatment effectiveness, Marzieh's work plays a role in managing immune diseases.

Of significant value to commercial laboratories, Marzieh plans to use her specialist expertise to pursue an industry career as well as mentor others.

“In ten years I see myself as a high-level industry researcher mentoring new employees at all levels,” she says.

Marzieh received a Choose Maths Travel Grant to attend AMSI Winter School in 2017



ADVERTISER: Macquarie University

CATEGORIES: Biostatistics & Bioinformatics

TAGS: research, postdoctoral research, informatics, health informatics, data analysis, mathematics, statistics, analytical skills

SALARY: \$88,420–\$94,760 **LOCATION:** Sydney **TYPE:** Full Time



MACQUARIE
University

JOIN OUR TEAM

Postdoctoral Research Fellow -Digital Health Evaluation

Macquarie is the university of pioneering minds. Globally recognised as one of Australia's leading research universities, Macquarie is a place where extraordinary new possibilities come to light. We've helped people to hear, introduced wireless internet technology to the world and broken through traditional boundaries by appointing Australia's first female vice-chancellor.

At Macquarie you'll join a vibrant community of diverse perspectives, all working towards a brighter future for our communities and our planet. Surrounded by beautiful parkland campus, our students and staff are free to explore and discover, supported by facilities including a high-tech library, private teaching hospital, gym and pools, childcare facilities, a campus train station and the newly expanded Macquarie Centre shopping complex next door.

In Macquarie's newly established Faculty of Medicine and Health Sciences you'll join leading researchers, passionate educators and internationally respected clinicians, united in a mission towards delivering the best patient care. Home to the Australian Institute of Health Innovation (AIHI) and Australia's first fully integrated academic health sciences centre, we are a place of bold discoveries and distinctive educational programs that embolden the future leaders of healthcare.

The Centre for **Health Informatics** (CHI) is one of three research centres in the Australian Institute of Health Innovation (AIHI). Founded in 1999, CHI is the longest-running digital health research centre in Australia. CHI is a research partner to major healthcare providers, research institutions and governments, and has national and international industry partnerships.

Join us and start seeing the world in a different light.

The Role

We are seeking a talented, enthusiastic researcher to join the new NHMRC-funded Centre of Research Excellence in Digital Health. The Post-Doctoral Research Fellow will have expertise in undertaking rigorous systematic reviews, as well as the evaluation of complex health service interventions. They will conduct a series of rapid reviews of the research literature over the project lifetime, prioritised by the CIs and with input from an Expert Scientific Committee.

The Post-Doctoral Research Fellow will also help conduct an **analysis** of success factors and failure modes for digital health applications, and help develop best-practice models for the implementation of digital health systems.

Expertise in qualitative and **quantitative methods** will be expected, and an understanding of implementation science models would be desirable.

The successful applicant will have the opportunity to work with the Centre's chief investigators and a diverse team of highly experienced and internationally recognised senior health and biomedical **informatics** researchers and front-line service providers to tackle the fundamental challenges that impede the creation of truly safe, efficient and effective digital health services for both clinicians and consumers. The team will make crucial contributions to national digital health policy and practice by translating these insights into improved digital health design, implementation, performance and surveillance.

To apply:

Applicants must provide a cover letter addressing the selection criteria below along with their resume as part of the application process.

Selection Criteria:

Essential

- PhD in **Health Informatics**, Health Services or Population Health, Computer Science, Software Engineering, **Mathematics**, **Statistics** or a related field.
- Strong background in quantitative and qualitative research with exceptional **analytical skills**, including an outstanding track record in peer-reviewed publications.
- Experience in undertaking rigorous systematic reviews.
- Strong written and oral communication skills.
- Demonstrated ability to contribute to academic life, administrative tasks of the Centre and a commitment to diversity in the workplace.
- Demonstrated ability to work both independently and as a member of an effective team.

Desirable

- Ability to secure research grant funding, relative to experience
- Understanding of digital health applications and implementation science.
- Experience in successful research supervision.
- Ability to develop partnerships with industry and/or professional bodies.
- Demonstrated academic knowledge in the discipline and a capability to deliver high quality learning and teaching, including the delivery of programs, lectures and tutorials.

This position would suit applicants with an interest in developing and evaluating digital health applications and best-practice models for the implementation of digital health systems for clinicians and consumers.

ADVERTISER: QIMR Berghofer Medical Research Institute
CATEGORIES: Biostatistics & Bioinformatics, Science & Environment
TAGS: statistics, biostatistics, statistical analysis, bioinformatics, research, data analysis, epidemiology
SALARY: \$76,615–\$82,202+ **LOCATION:** Brisbane **TYPE:** Full Time



QIMR Berghofer
 Medical Research Institute

Research Officer – Study of Naevi

- Two year postdoc fellowship position
- Herston location
- attractive salary packaging & superannuation options

About QIMR Berghofer:

QIMR Berghofer is a world leading medical research institute focussed on Cancer, Infectious Diseases, Mental Health, and Chronic Disorders. Our researchers work closely with scientists, clinicians and other research institutes to translate discoveries into prevention strategies, new diagnostics and better treatments that save lives.

About the lab:

The Cancer and Population Studies Group aims to understand the causes of cancer and how to better prevent and manage cancer. Thus we investigate the roles of environmental and personal factors in the causation of cancer and its precursors, and in cancer prognosis. We collaborate with clinicians, statisticians and behavioural scientists and also with laboratory scientists to better understand the underlying mechanisms of carcinogenesis and our particular focus is melanoma and other cancers of the skin.

Role Purpose / Responsibilities:

This role will be part of the National Health and Medical Research Council Centre of Research Excellence (CRE) for the Study of Naevi. This CRE aims to understand changes in melanocytic naevi (moles) on the skin over time, and the influence of body site, skin type and other personal characteristics on these changes.

The CRE is undertaking a 3-year longitudinal study of moles (naevi) in members of the general community. Baseline, six and 12-months data have already been collected. Participants reported on their skin cancer risk factors, and skin cancer history, and detailed skin imaging has been undertaken, using highly advanced imaging methods, including VECTRA whole body photography, and individual naevus imaging with dermatoscopy.

This postdoc will have access to these extensive data, and the opportunity to undertake innovative statistical analyses of patterns of naevus distribution and how these change as people grow older. The aim of this project is to generate new evidence about how naevi change as people grow older. This is an exciting area as there have been no previous longitudinal studies of this kind before to show the natural history of common naevi in healthy adults.

In this role you will be expected to independently:

- Oversee cleaning and preparation of the data for analyses;
- Conduct descriptive and regression analyses of naevus counts and patterns;
- Perform spatial and temporal analyses of naevus changes;
- Present the results at seminars and scientific meetings;
- Write-up the results for journal articles.

About you:

The successful applicant will possess the following:

Essential:

- Completed PhD in a relevant area- biostatistics, bioinformatics, or epidemiology with strong statistical background;
- Ability to work with large and complex datasets;
- Experience in data analysis and write-up;
- Ability to work as part of a team distributed across multiple University, Institute and Hospital sites.

Desirable:

- Image analysis/spatial statistics experience or interest to learn these techniques;
- Knowledge of epidemiological and public health research methods;
- Knowledge of systematic reviews and evidence synthesis

What we offer:

- Salary Packaging
- Bonus Superannuation
- State of the art facilities
- Stimulating work setting focused on cutting edge medical research
- Supportive/collaborative team environment



Supporting education supports society.

Education is fundamental to Australia's future. Encouraging the study of science, technology, engineering and maths (STEM) is vital to fostering innovative thinking and problem solving abilities that will help to address sustainable development challenges.

That's why we're working to change the under-representation of girls and Aboriginal and Torres Strait Islander peoples in maths and science through our commitment of \$55 million to STEM education across Australia.

We've partnered with the Australian Mathematical Sciences Institute (AMSI) on **CHOOSEMATHS** which is designed to encourage girls into mathematics, and we'll keep investing in programs to increase interest and academic achievement in STEM subjects.

The BHP Billiton Foundation is a charity funded by BHP, a leading global resources company, and through our programs we address challenges that are directly relevant to the resources sector.

bhpbilliton/foundation

BIostatistician - Bioinformatician - Scientist

ADVERTISER: Murdoch Children's Research Institute

CATEGORIES: Biostatistics & Bioinformatics, Science & Environment

TAGS: biostatistics, biostatistician, research, epidemiology, statistics, statistical analysis, clinical informatics, machine learning

LOCATION: Melbourne **TYPE:** Full Time



Biostatistician (Research Officer)

- **Make a difference within Australia's largest child health Research Institute**
- **MCRI is one of the top five child health research institutes worldwide**
- **Supporting our scientists to improve child health outcomes**

Generation Victoria (GenV) is a new whole-of-state Research initiative led from the Murdoch Children's Research Institute (MCRI), aiming to transform large-scale Children's Research in Victoria.

We currently require a Full Time **Biostatistician** (Research Officer) on a 12 month contract to join the GenV Program. This position will be responsible for biostatistical leadership within the Gen V project, as it takes shape over the next few years.

The appointee will engage in a broad range of activities related to Gen V, including collaboration with and support for emerging Gen V related research, and to the broader training and translation activities of Clinical Epidemiology & **Biostatistics** Unit (CEBU).

You will also be responsible for:

- Contributing to the development of the Gen V data repository, by providing expert enduser **statistical input**.
- Leading analyses of LifeCourse cohort study data including linked administrative data, to produce research outputs in collaboration with Gen V researchers and to test the data repository structure.
- Supervision of junior staff performing data cleaning and data preparation, in conjunction with the Gen V IT team.
- Providing analyst input to discussions and bridging work between Gen V and Royal Children's Hospital (RCH) data, including potential problems and novel topics arising in modern **clinical informatics** (e.g. high-density unstructured data and **computationally intensive analytics** such as machine learning).
- Liaising constructively between Gen V and the range of **analytic** and related expertise that already exists within CEBU.
- Providing advice regarding potential future Gen V initiatives (e.g. grant proposals for pilot studies, early analysis etc.).
- Contributing to **epidemiological research** projects as a **biostatistical** collaborator.
- Undertaking methodological research that is relevant to primary responsibilities within Gen V and its developing needs.
- Contributing to the supervision and mentoring of research students.
- Presenting research seminars at team meetings, workshops and conferences.
- Contributing to the training and research support activities of CEBU and the GenV team.

Key Selection Criteria

To be successful in this role you will have:

- PhD in **biostatistics** or equivalent research experience with Master of Biostatistics or similar.
- Experience in applying (and preferably in evaluating or developing) **statistical methods** for longitudinal epidemiological studies.
- Excellent **statistical computing skills** including experience in performing complex data manipulation and statistical analysis using either of the statistical packages R or Stata.
- Record of postdoctoral research output as evidenced by publication of peer-reviewed scientific articles.
- Excellent written and verbal communication skills.
- Demonstrated ability to work independently and collaboratively to achieve project goals and meet agreed deadlines.
- Familiarity with issues related to health research, principles of confidentiality, privacy, and information handling.
- Working with Children & National Police Clearance (if appointed) in compliance with the Victorian Governments Child Safety Standards.

Murdoch Childrens Research Institute is Australia's largest and most prestigious child health research institute. We conduct innovative world class research into identification, prevention and treatment of conditions affecting the health of babies, children and adolescents.

Our partnership with the Royal Children's Hospital and the University of Melbourne's Department of Paediatrics allows us to translate discoveries in laboratory, clinical and public health research into real benefits to help children live healthier, happier lives.

A 21st century experience at Australia's first university.

Skills in mathematics, statistics, and data science are becoming increasingly essential in solving the challenges of the future. Study with us and you'll learn from some of the brightest minds in the field. Make lifelong friendships and connections as you work towards an exciting global career.

What will you start here?

sydney.edu.au/science/maths



THE UNIVERSITY OF
SYDNEY

CRICOS 00026A

BIOSTATISTICIAN - BIOINFORMATICIAN - SCIENTIST

ADVERTISER: SAHMRI

CATEGORIES: Biostatistics & Bioinformatics

TAGS: statistics, biostatistics, bioinformatics, statistical analysis, data analysis, coding

LOCATION: Adelaide **TYPE:** Full Time



Postdoctoral Fellow in Computational Systems Biology/Bioinformatics

An exciting opportunity now exists for a Postdoctoral Researcher in Computational Systems Biology/Bioinformatics in the Lynn EMBL Australia Group, at The South Australian Health and Medical Research Institute (SAHMRI), in Adelaide, Australia (<https://www.sahmriresearch.org/>). The successful candidate will have a PhD in bioinformatics/computational biology (or in a related discipline) and a clear track record in the field as evidenced by publications in international peer-reviewed journals. The ideal candidate will have demonstrated experience in at least some of the following areas: network/systems biology; Using statistical approaches to relate high-throughput genomics data to clinical phenotypes; next generation sequencing data analysis; metagenomics. The successful candidate will work as part of a team that includes both computational biologists and wet-lab scientists investigating the immune system and cancer from a systems biology perspective - knowledge of immunology/cancer biology would therefore be an advantage. Prior postdoctoral experience would also be an asset, but exceptional recent PhD graduates will also be considered. The ability to work as part of a team and to manage multiple different projects simultaneously is essential. An initial 2-year full-time contract is available, potentially renewable subject to performance and availability of funding.

SAHMRI: is a \$250 million state-of-the-art medical research facility with excellent core facilities and services, hosting >700 researchers. The institute is located in the new \$3 billion+ Biomed city in the Adelaide central business district, close to all the amenities of the city. Adelaide boasts a Mediterranean climate, beautiful beaches and is within an hour's drive of world-class wine regions including the Barossa Valley.

EMBL Australia: The European Molecular Biology Laboratory is Europe's flagship for the life sciences. The Australian government joined EMBL as an Associate Member in 2008. EMBL Australia was subsequently created to maximise the benefits of Australia's associate membership of EMBL. EMBL Australia Group Leader positions are prestigious positions which come with up to 9 years funding for the group to conduct long-term high-impact research. The Lynn Group is one of 20 research teams that are being established at institutes around Australia under the EMBL model.

Key Responsibilities

- Play a leading role in the AIR clinical study, a study which will employ a systems vaccinology approach incorporating metagenomic and metabolomic analysis of the microbiota, together with blood gene expression data, extensive profiling of immune cell populations using flow cytometry and rich

serological data on antibody responses in infants in the first year of life to investigate how the gut microbiota in early life shapes the immune system.

- Collaborate on other systems biology projects in the cancer area including the PRIMES project, a €12 million European Commission funded project that is investigating how certain cancer-relevant networks are rewired in the presence of oncogenic mutations and how to target them.
- Implement and develop efficient pipelines for the analysis of a wide range genome-wide data and where necessary develop new custom bioinformatics methods and/or pipelines for projects in the group/theme.
- Implement statistical approaches to identify novel associations between genome-wide data, host immune responses and disease.
- Provide collaborative support to others in the group/theme with bioinformatics components of their projects.
- Lead the writing of high-impact publications relating to the projects.

Qualifications

- PhD in computational biology, bioinformatics, computer science, physics, statistics or other relevant discipline.
- Significant experience in computational biology/bioinformatics, ideally at a postdoctoral level.

Essential Experience, Knowledge and Skills

- Advanced programming skills in several of the following: Java, Python, C++, Perl, R.
- Prior experience working in a high performance computing environment.
- Demonstrated experience in network/systems biology and particularly in the analysis, interpretation and visualisation of genome-wide omics data and associating that data to clinical phenotypes and outcomes.
- Must be highly collaborative, be a strong team player and be able to manage multiple ongoing projects.

Everything we do is underpinned by our core values and our institute is dedicated to grow a culture that pursues, enables and demands research excellence. We are proud of the work we do and work hard as a team to make a positive difference to the community. Our values of Excellence, innovation, courage, integrity and teamwork are what help us achieve our goals. If these are also your values and goals, apply today.

Because your prime is yet to come

STUDY MATHEMATICS AT UOW

1st in NSW/ACT for Science and Mathematics.

Quality Indicators for Learning and Teaching (QILT) 2018.

Find the right course for you
uow.info/prime

Undergraduate courses in:

Applied Statistics, Mathematics
Advanced, Mathematics Education,
Mathematical Economics,
Quantitative Corporate Finance &
Investments, Medical Mathematics,
Mathematics & Statistics,
Financial Planning, Quantitative
& Computational Trading, Risk
Management & Insurance

Postgraduate courses in:

Mathematics, Financial
Mathematics, Statistics, Master
of Philosophy, Master of Research,
Phd (Mathematics)



UNIVERSITY
OF WOLLONGONG
AUSTRALIA



Unleash the power of statistics for a better Australia

Statistics play a key role in helping us understand the economic, environmental and social issues that drive social disadvantage.



As Australia's national statistical agency, the Australian Bureau of Statistics (ABS) delivers high quality and timely official statistics, providing insight to inform decisions on issues of importance to Australia.

Each year, the ABS seeks to employ highly skilled graduates, who are passionate about contributing to the future shape of our nation through enabling informed decision-making. The ABS is Australia's official statistical agency and as an ABS Graduate, you will join a world leader in its field.

Within the ABS, the Methodology Division (MD) provides the expertise on methods relating to the design, collection, compilation, analysis, dissemination and management of statistical data. MD uses innovative and relevant research to continually improve ABS' methods and approaches, and support the statistical areas of the ABS in implementing best practice in their data collections and data analysis.

The ABS Graduate Development Program will provide you with:

- A structured and tailored curriculum that will assist you to transition into the ABS and the Australian Public Service;
- The opportunity to utilise your degree and encourage you to expand your existing knowledge and skills;
- Enhanced statistical capability including an understanding of the statistical cycle and associated processes.

The ABS encourages and values a diverse workforce.

The Australian Public Service (APS) offers you a diverse range of challenging roles and the opportunity to make a major contribution to the public service.

Find out more about how our services can help you unleash the power of statistics, visit www.abs.gov.au or contact our National Information and Referral Service on **1300 135 070**.

QUANTITATIVE ANALYST - DATA SCIENTIST
BUSINESS ANALYST - MARKETING ANALYST



BUSINESS & MARKETING

Read between the lines...

From statistical analysis and modelling to problem solving, mathematics and statistics are in demand as companies of all sizes seek to transform business with big data.

JOB KEYWORDS

DATA ANALYTICS - BUSINESS ANALYTICS - ANALYTICS - OPTIMISATION - MARKETING
PROBLEM SOLVING - STATISTICS - MATHEMATICS - MODELLING - WEB ANALYTICS

TIM FIST

PROGRAMMER, DIGITAL AGRICULTURE SERVICES

I take complex real-world problems, break them down into their simplest parts, and then design an efficient solution.

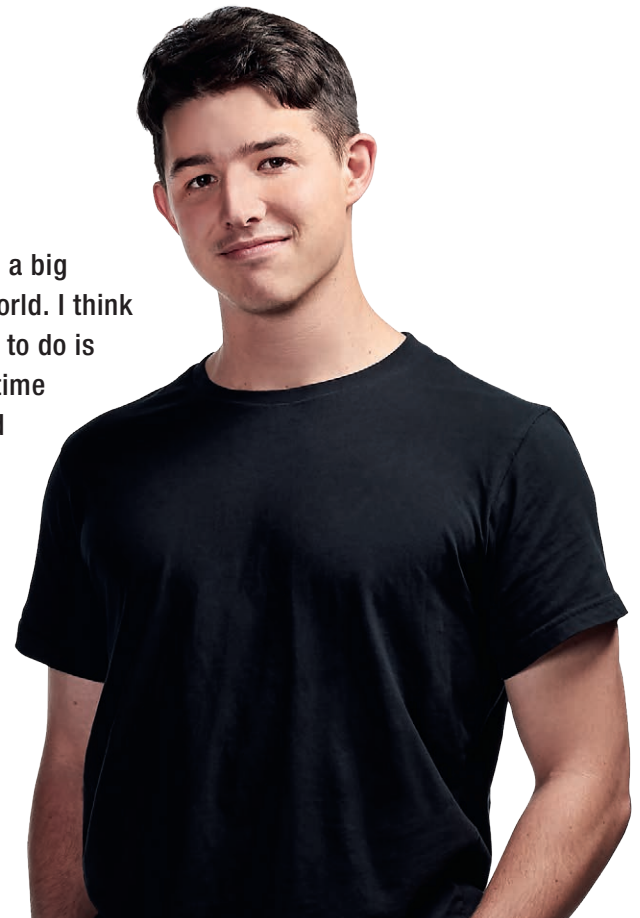
At university I tried to cover everything I was interested in, something which I absolutely recommend. When you're deciding what path to take, be a philosopher and think about the why. Do what you're interested in, and even some stuff you aren't.

I'm a programmer at DAS, a start-up based in Melbourne. Global food demand is one of the world's most critical future issues. The world's population is growing, but we know that the amount of land we can grow crops on (arable land) is fixed. We also know that agriculture's environmental footprint must shrink dramatically to safeguard the ecosystems we rely on. The challenge... to support future populations, we need to be more efficient in the way we produce food.

At DAS, we're gathering huge amounts of data collected from land and space to create a global digital map of agriculture. We build algorithms to transform satellite images, land sales histories and population data into useful information to support agriculture decision making.

“ Your career can have a big positive impact on the world. I think the most important thing to do is think critically, take the time to do some research, and then get out there and plan how you're going to spend your time. ”

Tim is a careers ambassador for AMSI's Choose Maths project



ADVERTISER: NSW Business Chamber

CATEGORIES: Business & Marketing

TAGS: Statistics, analytics, statistical modelling, forecasting, data analytics, quantitative analysis

LOCATION: Sydney **TYPE:** Full Time



Strategic Insights Analyst

Our Organisation

The NSW Business Chamber (NSWBC) is the state's peak business support organisation, dedicated to helping member businesses of all sizes grow and prosper. We connect businesses to peers, industry leaders and government to create opportunities and influence change. Through our expert advice and business solutions we help businesses become more productive, competitive and profitable. NSWBC's national commercial services division Australian Business Solutions Group (ABSG) includes Registered Training and Group Training Organisations; seven recruitment and on-hire divisions; Australian Apprenticeships Centre (28 offices throughout NSW); and legal and consulting services.

The Role

Reporting to the Strategic Insights Manager, the **Strategic Insights Analyst** will play a pivotal role in the support and future development of the business by generating insights and identifying compelling opportunities & strategies based on **analytics** to the senior management leadership teams. Suitable for a recent graduate or junior candidate, you will be able to demonstrate outstanding communication skills, be technically sound and willing to learn and work on diverse projects across the business unit. Adequate support and training will be provided to the successful candidate to ensure your career growth with us. This role will mainly perform technical works (**data extraction and analysis**, **statistical modelling**, **visualisation**, **forecasting** and general **business analysis**); and it is crucial that you will have the skills to explain technical concepts and findings to stakeholders. The vision is to support a culture of data-driven decision making to help the business to achieve its' strategic and operational objectives by providing information that is accurate, timely, relevant, complete, unbiased and actionable.

Key Accountabilities/Responsibilities

- economics, **statistics**, or science – a Post-graduate in similar field is a plus
- **Statistical knowledge**
- Excellent Microsoft Excel and PowerPoint skills
- Experience in using statistical package – experience with R would be highly regarded
- Experience in database and SQL would be advantageous
- Strong verbal and written communication skills
- Strong attention to detail and ability to see tasks through to conclusion
- Demonstrate negotiation and influencing skills
- Ability to work autonomously and within a team
- Demonstrate organisational and time management expertise
- Demonstrate service oriented approach, enthusiastic, motivated, positive attitude, good initiative and a self-starter
- **Analytical skills**, critical analysis

- Tertiary education in **quantitative** areas such as: engineering,
- Data extraction from internal CRM/database
- **Data analysis and visualisation**
- Customer profiling and segmentation
- Build and maintain **statistical model**
- **Forecasting**
- General business **analysis**

Qualifications and Experience:

We look for people who are also inspired by the mission of the Chamber Movement and who would fit in well with the collaborative, rigorous and entrepreneurial spirit of the company culture.

You will be a natural analytical thinker with strong attention to detail. You will possess strong communication & presentation skills to disseminate insights and data to suit your audience. In order to apply for this challenging and highly rewarding opportunity, it is essential that you are comfortable in working within a fast paced, diverse and evolving area.

ADVERTISER: PRA Technology People

CATEGORIES: Business & Marketing, Technology

TAGS: mathematics, statistics, data science, data analytics, modelling, machine learning, big data, programming, coding

LOCATION: Melbourne **TYPE:** Full Time



Data Scientist

- Iconic household Australian Brand.
- Be part of a pioneering team in the Australian Market.
- Competitive Salary + Benefits

This role is for an experienced **Data Scientist** looking for their next exciting and challenging role. In this iconic business, you will be join an established and successful team who don't settle for average and look to make more strides in data.

The Role:

- You will demonstrate and communicate a passion about building the data foundation, products and capabilities that drive business growth.
- You will build innovative data products for example real-time services, such as personalisation; A/B testing; audience segmentation; unified profile; commerce graph; as well as a **big data** platform Hadoop and Spark with real time data ingestion and processing.
- Conceptualise, define and oversee regular updates around key product metrics as the company's challenges and data evolve.
- Execute descriptive analyses, ranging from identifying product opportunities to understanding user behavior.
- Cultivate strong collaborations with product, engineering, senior stakeholders
- Share your technical solutions and product ideas with the external team through design review, pair programming, code reviews, and tech talks.

- Balance competing priorities while adhering to deadlines and aligning resources with value demands.

Requirements:

- 5-8 years of experience in **analytical field**
- Experience in **statistical modeling** and/or **machine learning**
- Experience with programming language like python, Java, R and C++
- Ability to translate data insights into product decisions
- Enthusiasm for learning new things and going deep into detailed **data analysis**
- Willingness to teach others
- Workflow flexibility and strong teamwork skills
- MS in Computer Science, **Statistics**, **Applied Mathematics**, or related area

Valued Desirable Experience:

- PhD in Computer Science, **Statistics**, **Applied Mathematics**, or related areas
- 2 years of relevant work experience, including expertise in recommender systems, personalisation, collaborative filtering and content based filtering
- Experience with Python, Unix, or statistical software packages (R,SAS) for data manipulation
- Familiarity with SQL or other querying language
- Ability to work with dashboard and visualisation software such as Tableau, D3, Mixpanel, Flurry or Google Analytics
- Confidence with **analytical tools** such as Excel, R, Python, Stata or Matlab

Benefits/Culture:

- Flexible work options
- Generous leave entitlements
- They innovate to create and disrupt
- A little bit of a start up with the security of bring a part of the wider group.
- Encouragement of diversity of thought.

ADVERTISER: APN Outdoor**CATEGORIES:** Business & Marketing**TAGS:** data analysis, data analytics, quantitative analysis, marketing**LOCATION:** Sydney **TYPE:** Full Time

Research Analyst

About us

As Australasia's most progressive Outdoor advertising company, APN Outdoor has experienced great success in this dynamic and fast paced sector. Why? Because we are committed to investing in research, innovation and cutting-edge digital developments to produce improved results for our advertisers.

About the team

The Research & Audience Insights team at APN Outdoor plays a pivotal role providing research and insights related activities to support the insights-driven selling and marketing of APN Outdoor's suite of media formats in Australia and New Zealand.

About the role

Due to increased growth, we have an opportunity for an additional **analyst** role reporting to the Research & Audience Insights Manager and working as part of the Marketing team.

The role is responsible for assisting the sales team in their responses to briefs, working on proprietary research studies, conducting bespoke surveys, and managing audience measurement systems. The role will also aid in facilitating the communication of research related knowledge with internal stakeholders. A key focus of this position will be to support our New Zealand team, in addition to collaborating across Australian markets.

Key Responsibilities

- **Analysing** large volumes of data to build stories around the Outdoor audience for brief responses
- Driving continuous development of APN Outdoor's audience measurement system in New Zealand, Calibre
- Assisting with the day to day operational aspects of MOVE, the Australian Outdoor industry audience measurement system
- Assisting with the implementation of new or enhanced **data driven insights** resources
- Developing presentations based on bespoke studies or surveys
- Supporting the broader team with trade campaigns and product marketing material
- Survey writing, programming questionnaires, and developing results presentations
- Training APN Outdoor employees on the strategic use of all research related systems and outputs
- Maintaining internal relationships with the Australian and New Zealand sales teams, trading, commercial and business services teams, as well as senior management

About you

This is a fantastic opportunity to broaden your strong research and consumer insights background into the fastest growing channel, out-of-home media.

We are looking for candidates who can demonstrate:

- Minimum 4-5 years experience in consumer/audience insights
- At least 12 months media industry experience
- A passion for analysing, reporting and storytelling
- Deep knowledge and experience of conducting **quantitative research** projects
- Appetite for **analysing data** and writing reports
- Strong collaboration and effective stakeholder management
- Detail orientation and effective organisation, time management & multitasking
- Effective communication and interpersonal skills
- Experience using numerous **data analytic tools** (e.g. Nielsen CMV, Advviews, Roy Morgan ASTEROID, Q, SPSS, GeoTribes explorer, MOVE)
- Intermediate to advanced skills in Microsoft office tools; PowerPoint, Excel etc
- Presentation or public speaking skills desirable but not essential

ADVERTISER: Connects2 Consulting Australia

CATEGORIES: Business & Marketing

TAGS: mathematics, statistics, data science, data analytics, predictive modelling, modelling, machine learning

LOCATION: Sydney **TYPE:** Full Time



Data Scientist

Are you looking to take the next step into **Data Science**? Could you apply your strong **Analytical**, **Insights & Modelling** skills as well as commercial acumen, in a role that will see you working across an entire business to promote Data as a strategic asset?

One of our industry leading clients has a much-coveted opening for an experienced **Data Scientist** to apply their ability to analyse, investigate and commercialise data for a range of stakeholders.

What you'll be doing:

- In-depth and advanced **data analysis** of large volumes of data from varied sources
- Development and maintenance of new and existing **models** including **predictive models**
- Investigate and research data to understand Customer Behaviour including trends, anomalies, patterns and opportunities for commercial and strategic application
- Interpretation and presentation of **Analysis** and **Insights** to a range of stakeholders
- Perform and improve best practice of the full scope of **model development**, including: versioning, testing, validation and monitoring, and documentation
- Develop Customer segmentation, value measurement and identify opportunities to meet objectives for fund growth and retention
- Provide technical advice and subject matter expertise around the evaluation of both internal and external data sets to ensure their full value is realised
- Day-to-day management of at least one Analyst

Your skills and experience:

- Degree and/or tertiary qualification in related discipline e.g. **statistics**, **mathematics**, economics, computer science etc
- 5+ years experience working in **Data and Statistical Analysis**, working with **data modeling** e.g. **predictive modeling**
- Strong technical skills in SQL and R are essential with experience in other **statistical analysis** tools also ideal
- Experience with **Big Data** platforms, data mining and **machine learning**
- Demonstrably strong quantitative analysis skills with the ability to understand the commercial impact of data on a business
- A thorough understanding of data and **complex data structures/data-sets**
- Outstanding communication skills both written and verbal are essential
- Confidence in building and maintaining stakeholder relationships
- Previous experience mentoring and managing are ideal with demonstrable leadership skills

Don't miss out on a fantastic opportunity to progress your career into management and **strategic data science**. Become a subject matter expert and work across all levels of the organisation. Join a culture of learning and continuous improvement in a friendly and welcoming environment.

ADVERTISER: Correlate Resources

CATEGORIES: Business & Marketing

TAGS: data analysis, data analytics, data science, modelling, risk, risk analysis, statistics, machine learning, optimisation

SALARY: \$100,000-\$120,000 **LOCATION:** Sydney **TYPE:** Full Time



Customer Data Scientists / Analytics Consultants

Our client is an industry pioneering Customer **Analytics** consultancy, currently disrupting the Australian market delivering of innovative, high profile, strategic projects that transform the way organisations engage, generate value and optimise experience for their large consumer bases. With a number of exciting new projects ready to get underway we are looking to recruit at least two experienced Customer **Data Scientists** to join the team in January to work in either contract or permanent positions.

As an experienced Customer **Data Scientist** the responsibilities of these roles will involve but not be limited to:

- Work within a team of industry pioneers on Blue Chip clients to map out complex customer strategies to be optimised through **Data Science** and **Machine Learning** techniques.
- Engaging with key business stakeholders and consult around analytical project requirements, discuss methodologies and negotiate deliverables.
- Leverage strong programming skills in Python, R, SQL or SAS to manage and manipulate and supplement large volumes of customer data in preparation for **modelling and analysis** assignments.
- Deliver a range of bespoke **Data Science**, **Machine Learning**, **Statistical Modelling** led projects leveraging techniques that may include; Linear/ Logistic Regression, Confidence Interval, Test of Hypotheses, Clustering - Unsupervised & Supervised Learning, Time Series, Decision Trees , Monte-Carlo Simulation, Bayesian Statistics, Principal Component Analysis, Neural Networks, Gradient Boosting, Nearest Neighbors, (Geo-) Spatial Modeling, Recommendation Engines, Attribution Modeling, Segmentation, Predictive Modeling, Scoring Engine, Survival Analysis, Lift Modeling, Yield Optimization, Cross-Validation, Model Fitting, Experimental Design, etc.

The successful applicant will come from a strong background working in a data driven analytics and insights environment and will be able to demonstrate:

- Strong skills and experience using R, Python, SQL or SAS to extract, manipulate and merge large customer behaviour or transactional data sets from a variety of source systems (SQL Teradata, Oracle SQL, SQL Server, AWS, SAS Base or R).
- At least 3yrs commercial experience extracting 'Customer Insights' from large and complex datasets relating to; customer strategy (acquisition, retention & growth), **statistical modelling**, marketing campaigns or credit **risk analysis**, etc.
- Educated to a minimum of degree level in an analytical discipline such as - **Mathematics**, **Statistics**, Econometrics, Actuarial

Studies, Data Science, Computer Science etc.

- A genuine passion to build a career in Data Analytics / Data Science, implementing analytical techniques and concepts such as; Linear/ Logistic Regression, Confidence Interval, Test of Hypotheses, Clustering -Unsupervised & Supervised Learning, Time Series, Decision Trees, Monte-Carlo Simulation, Bayesian Statistics, Principal Component Analysis, Neural Networks, Gradient Boosting, Nearest Neighbors, (Geo-) Spatial Modeling, Recommendation Engines, Attribution Modeling, Segmentation, Predictive Modeling, Scoring Engine, Survival Analysis, Lift Modeling, Yield Optimization, Cross-Validation, Model Fitting, Experimental Design, etc

ADVERTISER: Ethos BeathChapman

CATEGORIES: Business & Marketing, Finance & Money

TAGS: statistics, mathematics, data analytics, predictive modelling

LOCATION: Sydney **TYPE:** Full Time



ETHOS BEATHCHAPMAN

Senior Marketing Campaign Analyst

Great opportunity for a data-driven Campaign Analyst keen to make a mark with a market leading financial services organisation!

The Role

This opportunity is with one of Australia's foremost financial services groups with businesses across banking, insurance and investments. The objective of the Senior Marketing Campaign Analyst is to develop and manage Below The Line omni-channel marketing campaigns across the business.

Key Responsibilities

Develop Below the Line, omni-channel marketing campaigns with governance of customer leads, data quality, experimental design and measurement standards.

Support enablement of customer analytics methodologies such as predictive modelling and customer segmentation.

Custodianship of the measurement framework with cross-functional peers to monitor campaign and asset performance and provide insights and recommendations.

Consult and counsel with internal stakeholders and strategic partners on methodology, process, and prioritization

The Ideal Candidate

- Undergraduate Degree ideally in Marketing/Statistics/Mathematics
- At least 2 years experience in development of Direct Marketing campaigns within relevant campaign automation tools, SQL or SAS
- Analysis and development of Real Time Marketing/

Event Based Marketing activities

- Experience presenting to senior management
- Detailed experience and knowledge of technology and systems for the analysis and management of complex multidimensional data sets
- Automated Marketing Platform(s): Watson Campaign (UNICA), Watson Campaign Automation (Silverpop), Adobe Campaign, Pega, Marketo
- Data Processing Languages: SQL, SAS Python, HTML, R
- ETL processes & Platforms: Control M

The Opportunity

In this role you'll be a part of a major corporation with multiple brands in the market, currently thriving through the creation of a technology-driven environment. You'll work with big data sets and drive new initiatives in real time marketing, events based marketing and automated decision making. You'll exercise your creativity and leadership, engaging multiple stakeholders and managing campaigns from end to end.

Importantly, you will stamp your own creative/innovative mark on the business and contribute significantly its growth and direction.

On offer is a competitive salary, bonus, flexible working environment, progressive corporate culture and the opportunity to be a part of one of the country's leading financial institutions.

ADVERTISER: Become

CATEGORIES: Business & Marketing

TAGS: mathematics, statistics, data science, data analytics, optimisation

LOCATION: Melbourne **TYPE:** Full Time



Data Analytics Manager

A leading Digital agency with an international presence is growing their Data offering in Melbourne to work on key clients. An Analytics Manager is an essential part of this growth phase.

This is a Senior role for a data lover, a degree in statistics, mathematics or marketing science plus experience in a Digital Data Analytics role with managerial experience would be perfect.

You will be required to analyse data, make strategic recommendations for optimisation across social, display, youtube and paid search channels, along side your colleagues in the Marketing Science, Client service and Digital teams and be a key leader in a growing data sciences team.

You will always be learning and researching new trends and emerging technologies to provide your clients with the best possible service and outcomes.



**WESTERN SYDNEY
UNIVERSITY**



A ONE OF A KIND DEGREE IN DATA SCIENCE

In the world of tomorrow, data skills will be essential – no matter what other qualifications you may have. Western's new Bachelor of Data Science is a one of a kind. It's unique because it can only be studied in conjunction with another degree. This is a real advantage in a competitive environment; graduates who understand the intricacies of extracting information and knowledge from data are highly sought after, whatever their discipline.

Blend Data Science with courses like Marketing, Engineering, Information and Communications Technology, Science, or Psychology to graduate with a double degree.

It will all add up to an unstoppable future.

Find out more about what our Bachelor of Data Science degree can offer.

westernsydney.edu.au/datascience

Australian Mathematical Society

Promotes the mathematical sciences and their applications in Australia.

Represents mathematics, and the interests of mathematics related professions, to the Australian community and government.

Careers in mathematics

In today's information-rich environment, the possibilities for mathematically trained graduates are endless.

Find more career opportunities at

www.austms.org.au/Careers



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Up Now**
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* Eligible students receive
a period of free membership

EDUCATION

Inspire a new generation!

Australia needs mathematically trained teachers in its classrooms. Use your expertise to positively influence students and equip them for future success.

JOB KEYWORDS

CURRICULUM DEVELOPMENT - PRIMARY SCHOOL

HIGH SCHOOL - MATHEMATICS - STATISTICS

SPECIALIST MATHEMATICS - ADVANCED MATHEMATICS

SAM HARDWICKE

TEACHER, TURNER SCHOOL

I'm currently in my 12th year of teaching primary school. Mathematics education has proved to be a huge part of that.

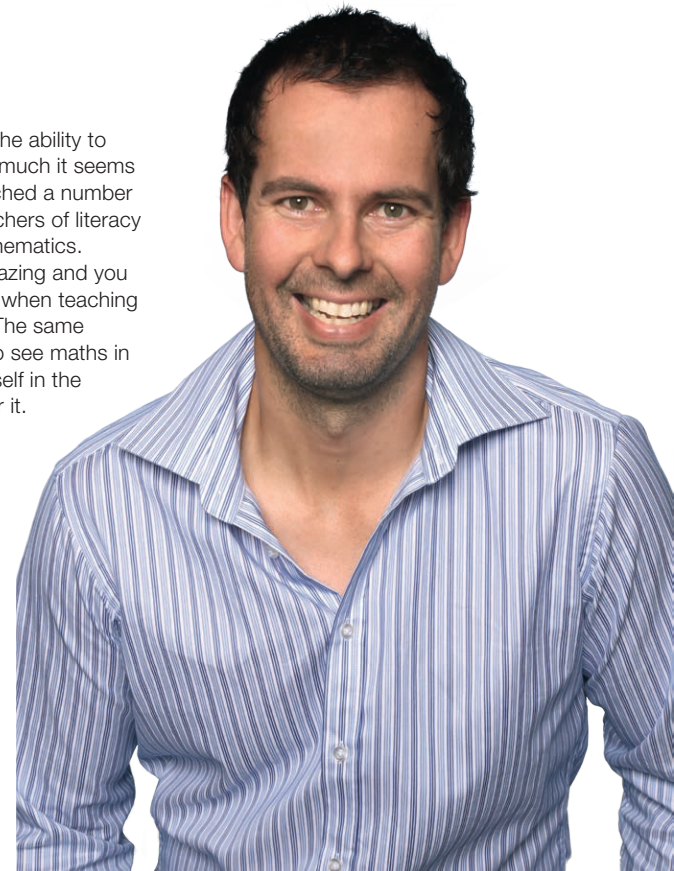
Being a teacher allows you to truly embody what it means to be a lifelong learner. Some jobs can become stagnant as you reach a certain degree of expertise, in education that's just not the case. There's always something interesting to learn and someone interesting to learn it from, be it a teacher or a student.

My success in mentoring and furthering students' love of maths actually lies with the work I've done with teachers.

“Inspiring teachers to be great mathematics educators gives my love of maths scalability. Instead of just reaching the 25 students within my class, I can reach the 150 students in the 5/6 cohort.”

My greatest strength in mathematics is the ability to inspire others. Because I love maths so much it seems to rub off on those around me. I've coached a number of teachers who saw themselves as teachers of literacy and had no identity as a teacher of mathematics. After working together, the shift was amazing and you could really see them becoming excited when teaching maths. It really is a creative endeavour. The same process happens with kids. If they get to see maths in all the incredible ways that it presents itself in the real world they quickly develop a love for it.

Sam received a Choose Maths Teaching Excellence Award in 2017





UNSW Sydney: School of Mathematics and Statistics

A leading centre for research and education in mathematics and statistics nationally and internationally.

Bachelor of Science (Advanced Mathematics) - a premier degree program for talented maths students combining advanced coursework with a final year research project. The degree can be done as a double degree combined with other disciplines e.g. Engineering, Actuarial Studies, and Commerce.

Bachelor of Data Science and Decisions - a unique multidisciplinary program taught across three different Schools at UNSW - Mathematics and Statistics; Computer Science and Engineering; and Economics - this program will train graduates to meet the growing demand for Data Scientists and Analysts nationally and internationally.

We offer a wide **range of scholarships**, such as Co-op Scholarships funded by industry partners, including Commonwealth Bank, the Reserve Bank of Australia, Macquarie Group, Solar Analytics, and PwC.

Below: Students from the Bachelor of Data Science and Decisions

No.1*
UNSW is a
national leader
in
maths & stats

CRICOS Provider 00098G



maths.unsw.edu.au

*US News 2015-2017,
ARWU 2010-2015

ADVERTISER: Monash College

CATEGORIES: Education

TAGS: mathematics, mathematics education, curriculum development

LOCATION: Melbourne **TYPE:** Full Time



Curriculum and Learning Specialist - Advanced Maths

- Design curriculum for **Advanced Maths** that will support international students in reaching their university goals
- Supportive and flexible workplace culture.
- 1 Year Full time contract convenient Collins Street location.

Are you passionate about curriculum design? Would you like to work with a group of academic professionals to create curriculum that will be used in Foundation Year programs worldwide?

*We are seeking a subject matter expert in **Advanced Maths** for our curriculum development team. As one of our Curriculum and Learning Specialists you will have substantial experience teaching students at a senior secondary or tertiary level.*

Working closely with the existing team you will develop and create course content, teaching and learning activities, assessments and supporting materials in various mediums including digital and online.

If you have highly developed verbal and written communication skills, the ability to build and maintain relationships and experience **supporting the learning of young people, particularly those from diverse cultural backgrounds, then this is the opportunity for you.**

Desired skills and experience

- Postgraduate tertiary qualifications in education and evidence of study in **Maths and Specialist Maths**
- A practitioner's understanding of the learning and social needs of international students
- Knowledge and experience of the senior secondary/ pathway programs in Australia
- Assessment development and/or course writing experience (Foundation Year/VCE/IB or similar preferred)
- Experience with learning management systems and educational technologies

About us

Monash College is the preferred pathway to Monash University for international students. For over 20 years we have been leaders in our field, preparing the next generation of global professionals to succeed at university and in their careers.

Monash University Foundation Year program is a transition pathway program which qualifies students for entry into first year tertiary study. MUFY predominantly caters for an international student cohort.. The program is delivered in Australia, Malaysia, Indonesia, China and Sri Lanka.

ADVERTISER: Smart Teachers and TES Australia

CATEGORIES: Education

TAGS: teaching, mathematics, mathematics education, secondary school

LOCATION: NSW Regional **TYPE:** Full Time



Mathematics and Science Teacher

- Sought-after independent school
- Regional New South Wales location - 4 hours' drive South-West of Sydney CBD
- Innovative and collaborative **Maths** and Science departments

Smart Teachers are currently recruiting for a **Maths** and Science Teacher for our highly-reputable client school located in Regional New South Wales. This school community is highly supportive and welcoming and the region is well regarded for its fresh produce and wineries. This exciting opportunity will commence in January 2018.

About the Role:

- Teaching Stages 4 and 5 **Mathematics** and Science
- Full-time role for 2018 with view to become permanent in 2019
- Position to commence Term 1, 2018

About the School:

- Sought-after independent school with continual high academic achievement
- 70% of students obtaining first round university offers and 40% gaining early entry
- Regional New South Wales location - 4 hours' drive South-West of Sydney CBD
- Innovative **STEM** program from Years 7 to 10

Benefits of Registering with Smart Teachers:

- Completely free service
- Gain access to exclusively listed positions
- Career mentoring, CV preparation and interview coaching
- Full disclosure on the role before your application goes to a school

About You:

- Possess current references
- Have the right to work in Australia
- Hold a teaching qualification recognised in Australia
- Be registered, or have the ability to be registered with New South Wales Education Standards Authority and Working With Children Check
- Dedication to student academic, pastoral, and social welfare



Don't miss...



An interview with Australian of the Year and renowned quantum physicist Michelle Simmons



Chief Scientist Alan Finkel on STEM education



UTS Magic Lab director Mary-Anne Williams on artificial intelligence

Read *Focus* magazine:
bit.ly/ATSEfocus



ADVERTISER: Ilim College**CATEGORIES:** Education**TAGS:** teaching, mathematics, mathematics education, secondary school**LOCATION:** Melbourne **TYPE:** Full Time

Ilim College of Australia
Advance through Knowledge

Secondary Teacher

A dynamic and forward moving Islamic School based in the northern suburbs of Melbourne is seeking secondary teachers.

The successful candidate will be given the opportunity to work as part of a vibrant and dynamic team of educators in a supportive environment. The candidates' previous experience in a similar role will be looked upon favourably.

Positions available

- VCE Psychology
- Health and Human Development
- **Mathematics 7-VCE**

- Open to graduate and experienced teachers

Benefits of Registering with SMART:

- Completely free service
- Gain access to exclusively listed positions
- Career mentoring, CV preparation and interview coaching
- Full disclosure on the role before your application goes to a school

About You:

- Possess current references
- Hold a teaching qualification recognised in Australia
- Be registered, or have the ability to be registered with QCT

ADVERTISER: Smart Teachers and TES Australia**CATEGORIES:** Education**TAGS:** teaching, mathematics, mathematics education, secondary school**LOCATION:** North Queensland **TYPE:** Full Time

Chemistry or Mathematics Teacher

- Coeducational Independent School – North Qld
- Chemistry or **Maths (B)**
- Commencing Term 1 2018 – 12 month contract

Our client is a P-12 coeducational Independent school located 90k from the beautiful North QLD coastline. Offering the best terms and conditions in teacher employment, this school is career enhancing in the short and long term sense. The school seeks a suitably qualified & highly motivated Teacher to join their school.

About the Role:

- Chemistry or **Mathematics [B] Teacher**
- Candidate who can teach both will be looked upon favourably
- Commence Term 1 2018 – 1 yr. Contract with strong view to permanency
- Regional independent school, 50min from the Beautiful Nt QLD Coastline
- Salary package includes Isolated Teachers Assistance Scheme, Remote Incentive Payments, Relocation Assistance, Housing assistance and travel provisions
- Social and supportive staff
- Career progressive



Mathematics Teacher

- **Top Independent school – Darling Downs**
- **Mathematics – A & B**

Our client is a top Independent school ideally located for candidates of the Darling Downs region. The school is seeking to appoint a qualified and highly motivated **Mathematics** teacher. This fulltime permanent position will commence in January 2018. The regular roles and responsibilities of a teaching position can be expected. As this is Independent school, support and commitment to the extra-curricular, pastoral and spiritual life of the school is required.

About the Role:

- **Mathematics [A & B]**
- Full-time, permanent role – 2018 Start
- Excellent facilities and teaching resources
- Supportive and well networked school
- Top Catholic regional school

Benefits of Registering with Smart Teachers:

- Completely free service
- Gain access to exclusively listed positions
- Career mentoring, CV preparation and interview coaching
- Full disclosure on the role before your application goes to a school

About You:

- Possess current references
- Have the right to work in Australia
- Hold a teaching qualification recognised in Australia
- Be registered, or have the ability to be registered with QCT

PURE CLASS

Researchers in the Mathematical Analysis and Modelling Research Group at UNE solve problems in both pure and applied mathematics. They develop theoretical techniques through analytical as well as geometric and algebraic tools. It's a satisfying way to use a true language of science to model complex real life conundrums.

At UNE you can learn from, and alongside, teams of dynamic researchers and experienced lecturers in mathematics and statistics. If you are inspired by geometry and numbers, or wonder about the population dynamics of cane toads, let's talk. You could be the head of the next wave of Australian mathematicians.

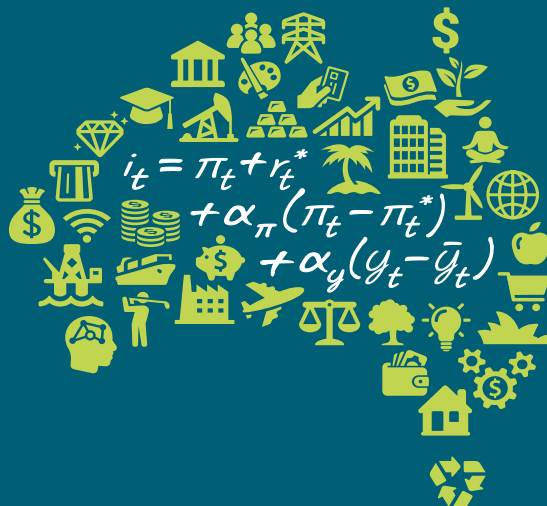


**School of Science
and Technology**

une.edu.au/maths
Assoc. Professor Gerd Schmalz:
schmalz@une.edu.au



Find
solutions ...



that add to
the prosperity
and welfare
of a nation.

A career in economics could be for you if you want to influence policy that affects the lives of all Australians. At the Reserve Bank, economists use maths to help answer questions such as, what interest rate strikes a balance between low and stable inflation and economic growth?

For more information about what economics is visit
www.rba.gov.au/education



RESERVE BANK OF AUSTRALIA

ADVERTISER: ARRENDELL Education

CATEGORIES: Education

TAGS: teaching, mathematics, mathematics education, secondary school

LOCATION: NSW **TYPE:** Part Time



Teacher - Mathematics

This is an outstanding professional opportunity for an experienced **Mathematics** Teacher at ARRENDELL Education, Charlestown.

Due to the growth in the program, this position will be available commencing Term 1 Monday 29.01.18.

Some professional benefits include:

- The Hunter's Leading Tutoring Centre
- Flexible Part-time, After-School Hours
- Individual and Small Group Tutoring
- Highly competitive remuneration rates

We are looking for a **Mathematics** teacher who has a passion for supporting learners in becoming outstanding **mathematicians**. The work can be designed around one to four evenings a week, teaching for 2-4 hours.

ARRENDELL Education provides extension courses for high achieving students who are keen to further develop their skills in English or **Mathematics**, as well as tuition for students who are experiencing difficulty or lacking confidence.

The Centre also specialises in preparing students for the selective school, scholarship and OC exams.

ARRENDELL is a 'teachers' heaven' being a relaxed and friendly environment in which to work. We have highly qualified and experienced teachers on staff.

Whether you are experienced or just starting out, if you are a warm and vivacious person with teaching experience in NSW (in particular), we would love to hear from you.

Background Information

ARRENDELL Education was established by Gwenda Sanderson in 1977 with the provision of services from her home in Adamstown Heights. ARRENDELL has since moved into new state of the art facilities at Charlestown this year. 250 students attend weekly and there is a PT staff of 16.

Interestingly, ARRENDELL Education has inspired, tutored and mentored over 20,000 primary and secondary Newcastle students, paving the way for their future success.

Professional Responsibilities

- Teaching group or individual lessons
- Preparing students to become outstanding mathematicians
- Providing feedback to parents

Essential Criteria

- Appropriate degree, teaching diploma and registration are essential.
- Teaching experience in NSW and familiarity with the National Curriculum requirements.
- Availability and commitment to afternoon / evening sessions
- Engaging personality and rapport with students, parents and colleagues, ideally with previous experience/s



Kickstart your maths career in world class facilities

Mathematics is the quantitative language of the world. It plays a vital role on the growth of science and technology, making it the fastest growing field in STEM disciplines.

Our new state of the art research and teaching facilities, with internationally-recognised academic staff and ground-breaking research in a variety of topics will enable students to master quantitative problem-solving, mathematical modelling and critical thinking.

Come and explore why we are the best place to study maths in Australia.

Find out more maths.anu.edu.au

“

Maths can be applied to so many pressing problems and opens so many doors. Applying my quantitative skillset to unravel real world problems has been very satisfying.

”

Yunfei Ouyang, BMathSci graduate

Why study mathematics at ANU?

- > Ranked #1 in Australia for Mathematics. (2018 QS World University Rankings).
- > Research projects individually supervised by some of the best mathematicians in Australia.
- > Classes among the smallest of Australia's top ranked universities.
- > Wide choice of courses and research projects in pure and applied mathematics.
- > Ability to combine our Bachelor of Mathematical Sciences with another degree from the ANU Flexible Double Degree options.
- > Access to facilities in collaboration with the Research School of Computer Science and the Australian Signals Directorate

ENGINEERING & RESOURCES

Maths grads, we need you!

Mathematical problem-solving skills are needed to design and implement innovative solutions across a wide range of industries from mining and resources to the energy and power markets.

JOB KEYWORDS

MINING - ENGINEERING - ENERGY - ANALYTICS - PROBLEM SOLVING
DATA SCIENCE - DATA ANALYTICS - MODELLING - ENERGY - UTILITIES
OPTIMISATION - FORECASTING - PLANNING - STATISTICS - MATHEMATICS

CAT PHILLIPS

SUPPLY PLANNER, EXXON MOBIL

I help keep the lights on, literally. I'm part of the team using maths to make sure Victorians have enough gas to power homes and industry today, tomorrow and into the future.

“A turning point for me was maths in Year 11... It instilled in me a curiosity about how things work and led to me studying science and mathematics at university, followed by a Master of Mechanical Engineering.”

When I studied maths at university, I worried I'd be stuck in a job where I'd be sitting by myself at a computer all day. But that's definitely not the case. My job involves communication and maths, two completely different skill sets that I love.

If you aren't sure what you want to do – don't worry. Just keep your options open for as long as you can and keep your eyes open for exciting opportunities! You never know how things might change or where you might end up wanting to work.

Cat is a careers ambassador for AMSI's Choose Maths project



ADVERTISER: Alinta Energy

CATEGORIES: Engineering & Resources, Business & Marketing

TAGS: business analyst, data analyst, data analytics, modelling, mathematics

LOCATION: Sydney **TYPE:** Full Time



PRICING ANALYST

A bit about us:

Alinta Energy supplies natural gas and electricity to 800,000 homes and businesses throughout Australia. Our mission of 'keeping it fair' is underpinned by its values of affordability, simplicity, efficiency, and environmental friendliness. With a focus on providing exceptional customer service, and reducing energy expenses, Alinta Energy continues to grow.

A bit about the role:

An excited opportunity for a **Pricing Analyst** now exists within our retail commercial team. The primary objective of the role is to work closely with the national retail commercial team to assist in pricing retail electricity and gas customers. This is a fantastic opportunity to work within a national pricing framework, whilst, enhancing systems and controls to develop and establish best practices capabilities.

Duties and responsibilities will include but not limited to the following:

- Undertake research into, and **quantify** the impact of, changes within national retail markets including changes to networks costs, energy costs, government schemes and changing consumption patterns.
- Develop, maintain and document financial tools and system processes that effectively support the retail market pricing activities.
- Ensure that pricing inputs to billing systems and pricing collateral are accurate and delivered on time.
- Complete **complex analysis** and deliver **analytical information** and reports.
- Ensure deliverables meet the expectations of stakeholders with respect to quality, consistency, timeliness and presentation.
- Work effectively within a high performing team environment and contributing to success through a positive and professional attitude.
- Develop highly productive partnerships with internal and external stakeholders.
- Undertake training and development as required.
- Business improvement projects and commercial initiatives related to providing pricing information to vendors and stakeholders.

What we're looking for:

- A relevant tertiary qualification in, economics, finance, **mathematics**, engineering or other relevant **numeric discipline**.
- Computer skills, in the development of **analytical modelling and reporting** tools, Matlab, SQL, Advanced Excel and Tableau.
- Experience managing **large datasets**.
- Ability to test, document and implement changes to operational systems.
- Demonstrated willingness and ability to learn new skills.
- Innovative and improvement mindset whilst driving efficiency in reporting and processes.
- Outstanding interpersonal and communication skills.

- Good time management skills with the ability to meet strict deadlines.
- Highly motivated team player with the ability to develop and maintain partnerships with internal and external stakeholders.

What's in it for you?

It's a really exciting time to join Alinta, we are growing fast and need people who want to grow with us. This role will offer you a foot in the door to a meritocratic culture that could lead down various career paths building an extremely bright future for yourself!

Work with people that know success first hand, that share your passion. The energy is infectious as new growth lands and ideas flow. There are many new directions we are taking and it's exciting. Choose this path and know your career will accelerate at Alinta Energy.

Let spread the positive energy together...

ADVERTISER: Origin Energy

CATEGORIES: Engineering & Resources, Business & Marketing

TAGS: business analyst, data analyst, data analytics, logistics, modelling

LOCATION: Melbourne **TYPE:** Contract/Temp



SENIOR MODELLING ANALYST

- Build and deploy predictive models
- Use analytics to improve business outcomes
- 6-month limited term opportunity

ORIGIN - AUSTRALIA'S LEADING INTEGRATED ENERGY COMPANY

An integral part of Australia's energy future, we explore, produce, generate and sell energy to power millions of Australian homes and businesses every day, keeping them going and growing.

Origin is the largest energy retailer in Australia, and with 4.3 million customers we're constantly evolving and changing to better suit their needs. Our activities include power generation, energy trading, the sale of LPG, electricity, natural gas and solar as well as the development of new and emerging technologies. Consider your possibilities with Australia's leading integrated energy company.

The Role

The Customer Analytics function plays a pivotal role in providing valuable and timely insights into customer behaviours and preferences that inform tactical decision making and long term strategic direction for Energy Markets.

The Senior Modelling Analyst is a results driven professional who is focused on short term outcomes while planning for the future. The position will require a deep understanding of data and analytics and the ability to build and deploy predictive models.

Reporting to the Advanced Analytics Manager, you'll be responsible for:

- Building capabilities to enable analytical models to be operationalized into the front office and other customer engagement channels
- Developing and maintaining effective, Customer Lifetime Value models for use in all key customer retention and acquisition strategies
- Developing and maintaining effective operational based customer segmentation models, providing insights into customer interactions and future product development
- Develop, operationalise and maintain various propensity models, e.g. churn, propensity to take up solar etc.
- Actively seek innovative use of analytics to improve business outcomes
- Building relationships with analytic teams across Energy Markets to share knowledge and streamline data processes

This is your chance to focus on both customer and value to ensure a vital strategic analytic foundation is built and maintained to enable optimal insights.

Is This You?

You'll need to have a unique mix of business acumen and analytics, excellent communication skills and focus on data to support business intelligence. You must also hold qualifications in an analytical or numerical discipline.

You have:

- Experience in Analytic roles with a track record of delivery
- A demonstrated ability to pull together disparate pieces of information and compile these into a meaningful story that drives change
- Experience in delivering customer analytics and predictive models using SQL/Python/SAS
- Strong data analysis skills, developed through tertiary study and/or significant experience in previous roles
- Experience collaborating, and building strong and credible relationships, with various business units
- Understanding of Data management, SQL, Database acumen
- Previous experience with analytics in the Digital space

We embrace the diversity of our people and flexible working arrangements to ensure our workforce is representative of the communities that we serve.

Aboriginal and Torres Strait Islander Peoples are encouraged to apply.

MAKE AN IMPACT ON AUSTRALIA'S ENERGY FUTURE

If dynamic and challenging career opportunities and workplace flexibility are important to you, go with the employer that thinks differently.



statistics

$$S_n = \frac{a_1 - a_1 r^n}{1 - r}$$

$$\operatorname{arccosh}(z) = \ln(z + \sqrt{z^2 - 1})$$



Australian Government
Department of Defence

graph theory

$$\sim \exists x [p(x)] \equiv \forall x [\sim p(x)]$$

- $p \rightarrow r$
- $q \rightarrow s$
- $p \vee q$

\vee vs \wedge

$$\operatorname{csch}(x) = 1/\sinh(x) = 2/(e^x - e^{-x})$$

AUSTRALIAN SIGNALS DIRECTORATE

Do you want a career in Mathematics that makes a difference?

physics

$$\cosh(x) = (e^x + e^{-x})/2$$


$$\log_n m = \frac{\log m}{\log n}$$

$$\operatorname{sech}(x) = 1/\cosh(x) = 2/(e^x + e^{-x})$$


Parallelogram = bh

data science

$$S^2 = \frac{\sum_{i=1}^n (x_i - \bar{x})^2}{N}$$

$$x^2 + 2ax + a^2 = (x+a)^2$$

cryptography



$$\operatorname{arctanh}(z) = 1/2 \ln((1+z)/(1-z))$$

$$\operatorname{trapezoid} = h/2 (b_1 + b_2)$$

$$\coth(x) = 1/\tanh(x) = (e^x + e^{-x})/(e^x - e^{-x})$$

machine learning

LEARN MORE

>

web: asd.gov.au/careers
email: asd.crypt@defence.gov.au

Teachers!
Register your students for the 2018

Australian Mathematics Competition (AMC)

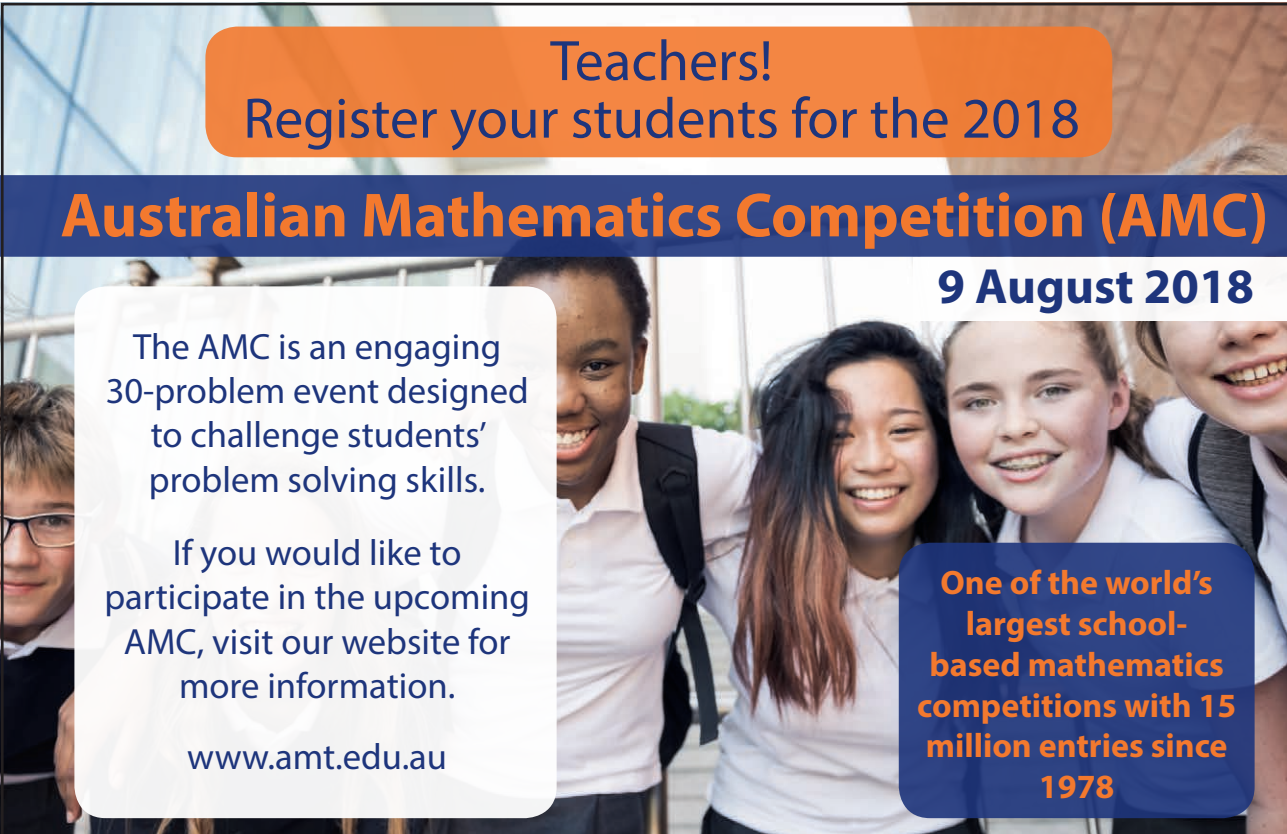
9 August 2018

The AMC is an engaging 30-problem event designed to challenge students' problem solving skills.

If you would like to participate in the upcoming AMC, visit our website for more information.

www.amt.edu.au

One of the world's largest school-based mathematics competitions with 15 million entries since 1978



ENGINEER - PROCESS ANALYST
SUPPLY ANALYST - PLANNER

ADVERTISER: CS Energy

CATEGORIES: Engineering & Resources, Business & Marketing

TAGS: business analyst, analyst, data analyst, data analytics, quantitative, mathematics, optimisation

LOCATION: Brisbane **TYPE:** Full Time



SENIOR TRADING ANALYST

About Us

At CS Energy, we are delivering energy today, and powering tomorrow.

Our vision is to be an Australian energy leader, renowned for our safe, reliable and affordable energy solutions. We have a clear strategy for how we can be part of Australia's energy future.

It will take foresight, determination and resilience. That is why we are focused on creating a work environment that allows our people to explore and find new ways of thinking and working. A workplace in which your unique perspective will be valued.

The Opportunity

This is a newly created role, which is responsible for providing expert analytical support during the optimisation of CS Energy's trading performance.

Working with physical and forward market analytics, you will be part of the development of our trading strategies through the identification of trading opportunities and pricing of wholesale and retail products.

You will be supported by an engaged and passionate leadership team, where your ideas and opinions are respected.

About you

You will be able to demonstrate your previous experience in a quantitative analytical role within a trading environment. You will have a strong technical acumen, particularly in enhancing trading tools and IT systems relevant to your field.

A strong communicator, you will have an ability to offer innovation through leveraging your in-depth knowledge of the National Electricity Market and financial markets.

Our preferred candidate will also possess degree level qualifications in Finance, Commerce, Economics, Information Technology, Engineering or Mathematics.

Energy is changing, and so are we. You are the key to delivering the best outcomes and keeping up the momentum of transformation.

If you're ready to be a part of it, apply now.

CS Energy is proud to foster an environment that builds respect, promotes inclusiveness, celebrates diversity and embraces the unique skills and qualities of all our employees. Reasonable adjustments to the recruitment process will be supplied to those who require additional support.

ADVERTISER: Chandler Macleod Group

CATEGORIES: Engineering & Resources, Business & Marketing

TAGS: Data analysis, Data analytics, data science, Engineering

LOCATION: Perth **TYPE:** Full Time



SENIOR TRADING ANALYST

- Leading Australian Iron Ore Mining Company
- Temp role 6 months – Perth based
- Immediate Start

Our client, a leading Australian Mining Company is in need of a process engineer/analyst for a contract based role for a 6 month period to begin with to perform a time and motion study for Plant Controllers.

You will be required to work Monday -Wednesdays 12 hr days and Thursday 8 hour duration each week.

The Time and Motion study will include collection of data and analysis of plant controller activities to look at process improvement using control system or other systems.

Key requirements are:

- A continuous focus towards zero-harm
- A degree qualification in metallurgy, mineral processing or chemical engineering and data analysis capability
- Substantial iron ore processing plant (process and control system) understanding
- Strong operational acumen
- Ability to quickly build good report with Controllers (On site and Head Office)
- Modelling and statistical packages knowledge
- A proven ability in achieving continuous improvement initiatives
- Strong communication, interpersonal & facilitation skills
- Self-motivated, results focused and team orientated

If you have the relevant qualification, Time and Motion Study experience, requirements listed and have a strong safety focus please apply now direct online now

Clever is

statistics
research

rated well above

world standard*

Study a Bachelor of Science, majoring in
Maths or Stats and become career ready

latrobe.edu.au/study-science



All kinds of clever

BANKER - TRADER - ECONOMIST - ACTUARY
DATA ANALYST - RISK ANALYST - ACCOUNTANT

FINANCE & MONEY

Not just for commerce graduates

Mathematics and statistics graduates are in high demand across the finance sector, including accounting, banking, and the investment and insurance industries.

JOB KEYWORDS

ACCOUNTING - BANKING - INSURANCE - ECONOMICS - DATA ANALYTICS
MODELLING - OPTIMISATION - RISK ANALYSIS - INVESTMENT
STATISTICS - QUANTITATIVE ANALYST - NUMERICAL ANALYSIS

STEPHANIE PARSONS

ECONOMIST, RESERVE BANK OF AUSTRALIA

Whether you realise it or not, the economy impacts everyone.

Most people know that the Reserve Bank of Australia (RBA) is responsible for setting the official cash rate in Australia, mainly because interest rates are so often in the news. But many people don't realise that the RBA has other responsibilities. For example, we have people working to maintain a strong and stable financial system, promote payments system efficiency, provide banking services to the government and produce Australia's banknotes.

I currently work in the area that is responsible for producing Australia's banknotes. I'd love to say that I make the money – but my team's role is actually to provide analytical insights to ensure that the RBA's policies for managing the nation's banknotes are effective.

“Like many economists, I stumbled upon economics when I was at university. You never really know where you might end up so it's always good to keep your options open and go to your economics lectures.”

Stephanie is a careers ambassador for AMSI's Choose Maths project





Model your future

Statistics, Analytics and Mathematics at RMIT is outcomes-focused.

Our programs develop your analytical and problem-solving skills so that you can apply your knowledge to banking and finance, sports analytics, engineering, environmental modelling, biomedical research, cyber security, logistics, business and more.

An emphasis on work-integrated learning and placements ensures you have the skills to help organisations make informed, data-driven decisions.

Flexible learning opportunities include the option to study a semester at one of our partner universities in Europe, Asia or the Americas.

Study programs include:

- Bachelor of Analytics (Honours)
- Bachelor of Science (Mathematics)
- Bachelor of Science (Statistics)
- Master of Analytics
- Master of Data Science
- Master of Statistics and Operations Research
- Master of Cyber Security

www.rmit.edu.au/science

CRICOS provider number: 00122A



BANKER - TRADER - ECONOMIST - ACTUARY
DATA ANALYST - RISK ANALYST - ACCOUNTANT

ADVERTISER: Correlate Resources**CATEGORIES:** Finance & Money**TAGS:** data analysis, data analytics, data science, modelling, risk, optimisation, data visualisation**SALARY:** \$100,000+ **LOCATION:** Sydney **TYPE:** Full Time

Data Insights & Visualisation Analyst (Tableau) - Leading Australian FinTech

Our client is a market leading and rapidly growing Australian FinTech innovator who dominate their niche segment within the financial services industry.

Boasting an ever growing team who are focused on inventing and disrupting conventions to make financial service solutions easy. They have an energising, supportive and collaborative culture, are receptive to new ideas and innovation, and are looking for great people who want to be a part of that journey. With the business focused on optimising strategic operations by proactively leveraging key data assets a brand new position has been created for a Data Insights and Visualisation Analyst to join the team.

As a Data Insights and Visualisation Analyst the responsibilities of the role will involve but not be limited to:

- Working with key stakeholders across the business to gather and translate business requirements into technical reporting specifications.
- Develop and deliver a series of Tableau dashboards, reports and scorecards from business requirements to satisfy the business need.
- Understand and query disparate data sources, including relational structures, dimensional data models, source systems and reporting views to support BI product development.
- Support and lead the development of strategic insights, driven data visualisation projects that may include but not be limited to Sales Channel Optimisation, Marketing/Campaign Performance Tracking, Product & Portfolio Performance Tracking, Human Capital Management, Strategic Operations Performance, etc.

To be successful in this role you must be a motivated and driven Tableau Data Visualisation Analyst, hungry to prove yourself in one of Australia's rapidly growing, innovative FinTech businesses with a challenging data driven environment. You will be able to demonstrate;

- Experience working with senior stakeholders in a commercially driven environment to gather strategic insights driven reporting and data visualisation requirements.
- Minimum of 2 years of experience working with at least one major Data Visualisation tools such as Tableau, Qlikview, PowerBI, SAP Business Objects, IBM Cognos, or OBIEE.
- Ability to write complex SQL queries and experienced with SQL Server databases (or equivalent Oracle SQL, Teradata SQL, AWS SQL etc)
- A hunger and desire to develop your professional skills and career in Data Analytics within applications, Customer Marketing Analytics, Campaign Analytics, Business Strategy, Sales Channel Optimisation, Human Capital management, Operational Performance, Credit Risk, etc.
- At least a Bachelor's Degree in Computer Science, Information Systems, or related discipline.

ADVERTISER: SGS Economics and Planning**CATEGORIES:** Finance & Money**TAGS:** quantitative analysis, modelling, data science, data analysis, data analytics, problem solving skills, statistics, mathematics, economics**LOCATION:** Sydney **TYPE:** Full Time

Consultant Economist / Quantitative Analyst

SGS Economics and Planning is a highly successful national firm of economists, planners, policy analysts, data analysts and geographers dedicated to helping business and governments make successful policy and strategy decisions. SGS is first and foremost for the public interest.

SGS is seeking an emerging professional with a background in economics, econometrics, maths, data science or other quantitative experience to join our growing Sydney practice.

Previous work experience will be highly advantageous. The successful candidate will have strong analytical and modelling skills and demonstrated experience in applying these to real world problem solving.

Requirements of the role include:

- Undertaking data and spatial analysis and interpreting results in technical and simple terms to provide clients with policy insights
- Data collection and preparation
- Applying existing in-house models to real-world problems Interpreting quantitative outputs in well-written reports and presentations
- Assisting in the development of new quantitative techniques and models (using Excel and other software), and
- Continuous improvement of the firm's quantitative capabilities.

A high level of proficiency in MS Excel is a must. Expertise in econometrics packages (such as Eviews and R) and data analysis program languages (i.e. VBA, Python and SQL) will be viewed favourably. You will be familiar with a range of econometric techniques and models, have an understanding of Australian Bureau of Statistics and other datasets, and have well developed report writing skills.

The role requires a balance of quantitative, writing and presentation skills, analytical skills and, importantly, a passion for informing policy in the public interest.

While based in Sydney, you will work with our clients across Australia, New Zealand and, on occasions, elsewhere internationally. This role will provide ample opportunities for professional development and progression.

SGS provides an inclusive workplace with opportunities to learn through direct contact with SGS senior team members who bring together a wide range of skills and experience. In addition, we provide opportunities to develop consulting expertise across a range of interesting and challenging projects and formal training.

ADVERTISER: Apollo Recruitment**CATEGORIES:** Finance & Money**TAGS:** quantitative analysis, modelling, data science, data analysis, data analytics, data and special analytics, problem solving, statistics, mathematics**LOCATION:** Sydney **TYPE:** Full Time

Market Risk Quantitative Analyst

My client, a leading Financial Services organisation, seeks a **Quantitative Risk Modelling Analyst** to join its team in the Sydney CBD. This role, reporting to the Senior Manager of Quantitative Risk Modelling, will be responsible for managing data, models and processes to estimate and report on risk exposures faced by the organisations' counterparties.

The primary responsibilities of the role are:

- Model development and stress testing
- Model Validation
- Development of tools and analytics to support Risk Management capabilities
- Maintenance of existing models
- Development of code for risk models (predominantly in R and SQL)
- Contribute to the development of Stress Testing methodologies.
- Assist and contribute to key projects in the organisation.

Who we're looking for:

- 2+ years in a Quant/Risk role
- Strong understanding of Market Risk management
- Good understanding of derivatives products
- Strong coding experience (R and SQL highly regarded)
- Undergraduate degree in a highly numerate field
- Strong project management skills
- Excellent stakeholder engagement skills.

ADVERTISER: APRA**CATEGORIES:** Finance & Money**TAGS:** quantitative analysis, modelling, data science, data analysis, data analytics, risk, risk analysis, quantitative risk modelling, actuarial science, insurance**LOCATION:** Sydney **TYPE:** Full Time

Principal/Senior Analyst – Life Insurance, Strategic Intelligence

APRA is seeking a life insurance practitioner to join its Insurance Strategic Intelligence team within the Data Analytics branch of the Risk and Data Analytics Division. Insurance Strategic Intelligence supports APRA's core functions through the provision of forward-looking analytics and other business intelligence, driving risk-based supervisory judgements and strategic decisions.

As part of the team you will gain a unique perspective of the life insurance industry as you apply your skill and experience to provide high-quality industry insights to APRA's senior executive, life insurance supervisors, and other Government bodies. You will collaborate with a wide range of APRA staff and with industry stakeholders, and have an opportunity to be involved in significant projects that will impact the life industry.

This exciting role would suit an existing industry professional with life insurance experience, willing to take on a new challenge and contribute to a dynamic team environment.

About you:

You will have experience in the life insurance sector. You will have a sound understanding of life insurers and excellent analytical skills. Tertiary qualifications are essential and being a qualified or part-qualified actuary would be an advantage. Well-developed communication and interpersonal skills are indispensable, along with excellent organisational, self and priority management skills.

The Australian Prudential Regulation Authority (APRA) regulates the Australian banking, insurance and superannuation industries, and is funded largely by the industries that it supervises. We currently supervise approximately \$5.9 trillion in assets for 23 million Australians.

APRA invests in contemporary technologies to enable our employees to achieve work life balance, via flexible working practices. We are dedicated to cultivating a diverse and inclusive workplace that fosters collaboration and continuous improvement.

ADVERTISER: Fitzgerald Jenkins Recruitment

CATEGORIES: Finance & Money

TAGS: mathematics, statistics, data science, data analytics, risk, risk analytics

SALARY: \$80,000–\$90,000+ **LOCATION:** Sydney **TYPE:** Full Time



Clearing Risk Policy Analyst -Top Tier Financial Services

Our client is one of the leading players in the financial services market who is offering a fantastic opportunity for an energetic and high performing **Clearing Risk Policy Analyst** on a **permanent basis**.

This is a great role where you will;

- Develop **valuable insights** into the **operation of financial markets** and in particular how a Central Clearing Counterparty (a key component of financial markets) operates and **manages risks** whilst also developing your **analytical, report writing** and **stakeholder management** skills:
- As part of the Clearing Risk Policy team, ensure that the CCPs' clearing risk policy framework continually reflects the risk appetite of the group and complies with all regulatory requirements.
- Work with the Senior Manager Default Management and Recover to maintain, improve and adapt the groups Default Management and Recovery **risk framework** in line with changing market conditions and regulatory requirements
- Provide assistance and guidance to other Group functions on clearing risk policies and default management and recovery arrangements

To be successful in this role we are looking for someone with good **mathematical/statistical** capabilities and **Excel skills** with strong **analytical** ability. You will have the following experience;

- Experience in a **financial institution or professional services firm** (in one or more of the following areas: **front office, market risk, credit risk, operational risk, operations, regulatory capital assessment, assurance/audit**)
- Broad understanding of market, credit and liquidity **risk management** concepts and techniques
- **Report writing and project** experience

ADVERTISER: Huxley Banking & Financial Services

CATEGORIES: Finance & Money

TAGS: statistics, data science, data analytics, risk, risk analytics, modelling, quantitative analyst, risk management

LOCATION: Sydney **TYPE:** Contract/Temp



Quantitative Analyst

Huxley is a specialist recruitment company within Banking & Financial Services. Our purpose is to help clients achieve their business goals whilst enabling candidates to achieve their career goals through matching the best talent with the best employers in their field. Our clients include some of Australia's best known banks, insurance companies, fund managers, brokerage firms, accountancy and consulting firms, and other financial institutions.

One of our Financial Services clients based on the Lower North Shore is currently seeking a **Quantitative Analyst** to join their **Risk Management** team on an initial 6month contract, with potential to stay on permanently afterwards.

The role:

Quantitative Analyst

6month contract (to perm)

Lower North Shore

Financial Services

\$4-500+Super Per day

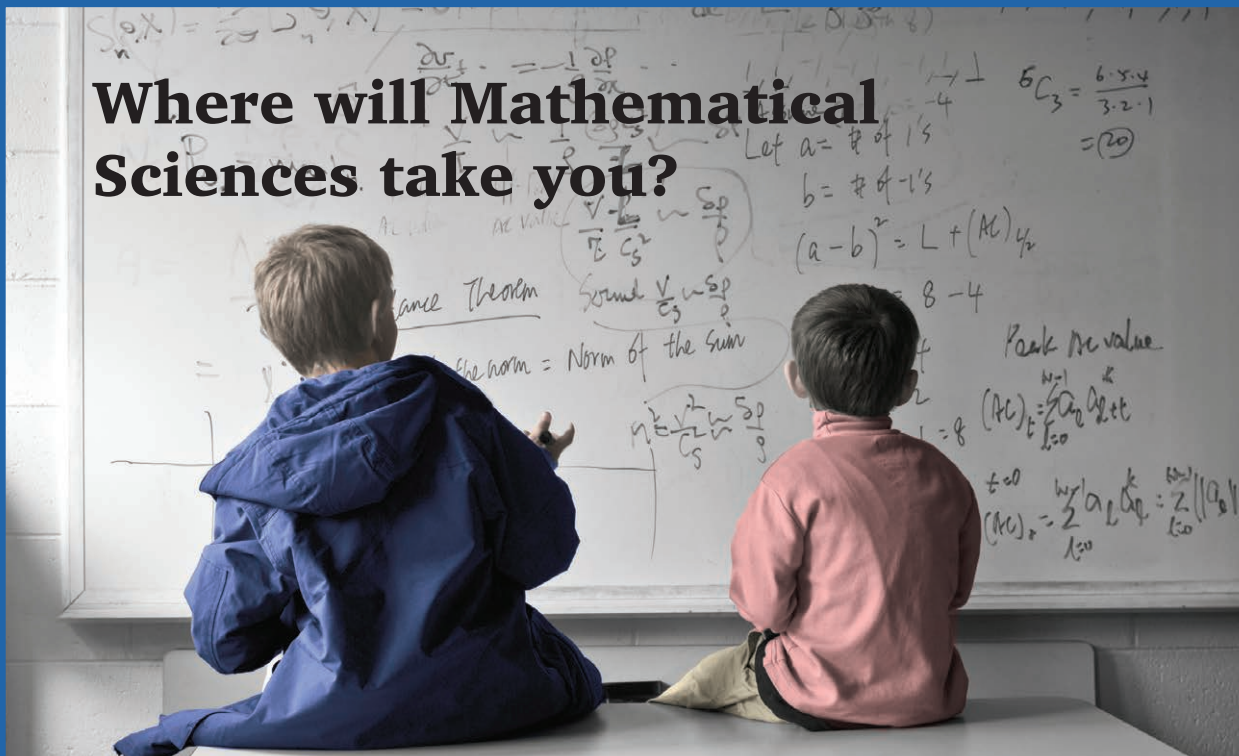
Your responsibilities:

- Design and development of Residual Value **Models**
- Prepare reports and enhance Provision & Budgeting Methodology & **Model**
- Provide operational support & Ad hoc **Analysis**
- Partner with other risk teams on Risk Frameworks, KRIs and Stress Testing
- Provide **analytical** expertise and support by participating in cross functional Kaizen activities and contribute feedback and recommendations for continuous improvement and efficiency

Role requirements:

- A minimum of 2 years' experience in **Advanced Analytics**
- Experience in **statistical model building**
- Strong working knowledge of SAS or R
- SQL and Excel
- Good communication skills
- (Highly desirable) Exposure to **Risk Management**
- (Highly desirable) A degree in **statistics**, actuarial science, **mathematics** or similar.

Where will Mathematical Sciences take you?



"Young people must come to see science and math degrees as key to opportunity. If we fail at this, we won't be able to compete in the global economy" – Bill Gates

Mathematical Skills Can Make All The Difference: you will develop general skills in problem solving, critical thinking, modelling, analysis, research, and creativity, which can be used wherever your career may take you.

CAREER OPPORTUNITIES

Actuary	Financial Analyst
Banking and Finance	Genetics
Biostatistician and	Market Research
Public Health	Mathematical Modeller
Communications	Mathematical Physicist
Specialist	Medical Research/
Computer Analyst	Science
Computer Programmer	Operations Research
Cryptologist	Analyst
Data Analyst	Science Journalism
Defence	Statistician
Film Industry	Teacher
Special Effects	University Lecturer

Study Programs

The School of Mathematical Sciences offers undergraduate and postgraduate programs in:

- Applied mathematics
- Financial and insurance mathematics
- Mathematics
- Mathematical statistics
- Pure mathematics

Undergraduate Studies

Students can study topics from a range of areas in mathematics, including:

- Algebra and number theory
- Geometry and partial differential equations
- Mathematical physics
- Statistical techniques and applications
- Probability
- Financial mathematics
- Stochastic processes
- Operations research

These can be combined with studies from other areas including engineering, commerce, IT, law and arts. Mathematics is commonly taken with other science areas of study.

Further Information

Monash University Undergraduate Handbook
www.monash.edu.au/pubs/handbooks

Enquiries

School of Mathematical Sciences

9 Rainforest Walk, Monash University, Victoria, 3800
 Telephone: 03 9905 4465
 Email: enquiries@maths.monash.edu.au

For more information on studying mathematics at Monash visit maths.monash.edu



MONASH
University

EPIDEMIOLOGIST - PHARMACIST - BIOINFORMATICIAN
 SPORTS ANALYST - STATISTICIAN - URBAN PLANNER

HEALTH & SOCIETY

Optimising Life

Mathematics and statistics underpin many aspects of human society, from optimising health, sport and recreation to urban planning, social services and more.

JOB KEYWORDS

PHARMACY - MEDICAL - CLINICAL - STATISTICS - BIOSTATISTICS
INFORMATICS - BIOINFORMATICS - CLINICAL INFORMATICS - HEALTH SCIENCE
EPIDEMIOLOGY - DEMOGRAPHICS - URBAN PLANNING - OPTIMISATION
POPULATION STATISTICS - RISK ANALYSIS - DATA ANALYTICS

WENDY EWING

ASSISTANT DEPUTY DIRECTOR OF PHARMACY, MONASH HEALTH

“My Year 12 maths teacher used to say that “maths makes sense”. This resonates with me – there’s always an answer when maths is involved.”

Maths is involved in all aspects of medication use: how we determine the appropriate dose to give to a patient, how to determine how well a patient’s liver and kidneys are functioning, and how long a medication will be in a patient’s body.

I’m responsible for medication safety across Monash Health. Medicines are the most common treatment that patients receive in hospital. They can be very effective, but an error can have major consequences. My role involves governance and responsibility of medication safety initiatives to improve the way medicines are prescribed, dispensed, stored and administered, with an overall aim of improving patient safety. The work that I oversee aims to reduce medication errors that harm patients.

At school it can be tough to see how your subjects will translate to real life or to a future career path or job. Let’s be honest, not everything will. But it’s part of a journey to find out what you like and what you’re good at.

Wendy is a careers ambassador for AMSI’s Choose Maths project



ADVERTISER: Macquarie University

CATEGORIES: Health & Society, Science & Environment

TAGS: research, health informatics, data analysis, data analytics, statistics, analytical skills, analytical methods, health

SALARY: \$88,420–\$118,174 **LOCATION:** Sydney **TYPE:** Full Time



MACQUARIE
University

Research Fellow or Postdoc Research Fellow – Evaluation of Clinical Analytics

Macquarie is the university of pioneering minds. Globally recognised as one of Australia's leading research universities, Macquarie is a place where extraordinary new possibilities come to light. We've helped people to hear, introduced wireless internet technology to the world and broken through traditional boundaries by appointing Australia's first female vice-chancellor.

At Macquarie you'll join a vibrant community of diverse perspectives, all working towards a brighter future for our communities and our planet. Surrounded by beautiful parkland campus, our students and staff are free to explore and discover, supported by facilities including a high-tech library, private teaching hospital, gym and pools, childcare facilities, a campus train station and the newly expanded Macquarie Centre shopping complex next door.

In Macquarie's newly established Faculty of Medicine and Health Sciences you'll join leading researchers, passionate educators and internationally respected clinicians, united in a mission towards delivering the best patient care. Home to the Australian Institute of Health Innovation (AIHI) and Australia's first fully integrated academic health sciences centre, we are a place of bold discoveries and distinctive educational programs that embolden the future leaders of healthcare.

The Centre for Health Informatics (CHI) is one of three research centres in the Australian Institute of Health Innovation (AIHI). Founded in 1999, CHI is the longest-running digital health research centre in Australia. CHI is a research partner to major healthcare providers, research institutions and governments, and has national and international industry partnerships.

Join us and start seeing the world in a different light.

The Role

We are seeking a talented, enthusiastic researcher to contribute to the new NHMRC Partnership Centre in health systems sustainability. The successful applicant will contribute to the Centre's **Analytics** research stream, focussing on translation of **analytics methods** and tools into real world settings.

The successful applicant will have the opportunity to work with a diverse team of highly experienced and internationally recognised researchers, policy makers and clinicians to investigate and create interventions to improve health system performance sustainability.

To be considered for this position, applicants must:

- Provide a cover letter addressing the selection criteria below along with their resume as part of the application process.

- Indicate in their application the level (either A or B) at which they are applying.

Selection Criteria for Post-Doctoral - Level A applicants:

Essential

- PhD in **Health Informatics**, **Biostatistics**, **Computational Statistics**, Computer Science, Epidemiology, Pharmacology or related field.
- Expertise in running and evaluating clinical trials of health service interventions.
- Demonstrated expertise in writing and publishing research protocols, systematic reviews, and Ethics Committee applications.
- Experience with and high-level knowledge in **statistics**, focussing on methods to evaluate health service interventions.
- Demonstrated research track record with peer-reviewed publications.
- Demonstrated ability to work as a member of an effective team.
- Strong oral and written communication skills.
- Demonstrated ability to make a useful contribution to the academic life and administrative tasks of the Centre and Institute.

Desirable

- Experience in evaluating digital health interventions, and specifically clinical decision support systems.
- Demonstrated ability to secure research grant funding.
- Expertise in designing decision support tools.
- Advanced computer programming skills.

Selection Criteria for Research Fellow - Level B applicants:

Essential

- PhD in **Health Informatics**, **Biostatistics**, **Computational Statistics**, Computer Science, Epidemiology, Pharmacology or related field.
- Expertise in running and evaluating clinical trials of health service interventions.
- Demonstrated expertise in writing and publishing research protocols, systematic reviews, and Ethics Committee applications.
- Substantial experience with and high-level knowledge in **statistics**, focussing on methods to evaluate health service interventions.
- Outstanding research track record with peer-reviewed publications.
- Demonstrated ability to work as a leader and as a member of an effective team.
- Strong oral and written communication skills.
- Demonstrated ability to make a useful contribution to the academic life and administrative tasks of the Centre and Institute.
- Demonstrated academic knowledge in the discipline and a capability to deliver high quality learning and teaching, including the delivery of programs, lectures and tutorials
- Demonstrated ability to secure research grant funding.
- Expertise in designing decision support tools.

Desirable

- Experience in evaluating digital health interventions, and specifically clinical decision support systems.
- Experience in successful research supervision.
- Experience in the development of ongoing partnerships with industry and/or professional bodies.
- Advanced computer programming skills.
- This position would suit applicants with an interest in and experience with designing and testing novel health service interventions, including decision-support technologies, with experience running clinical trials
- and an interest in creating a sustainable health system. Advanced expertise in **statistical** and other **data analytics methods** would be well regarded.

ADVERTISER: Greenlight Clinical**CATEGORIES:** Health & Society**TAGS:** data management, data systems, analytics, clinical statistics, medical, health**LOCATION:** Sydney **TYPE:** Full Time

GreenLight Clinical

Head of clinical data management

- Exciting opportunity to make this role your own
- Rapidly growing global full service CRO with headquarters in Sydney
- Dynamic, collaborative and friendly team

Greenlight Clinical is seeking to appoint a **Data Management** Head to lead their data management team. The Head of Clinical Data Management will be accountable for ensuring successful delivery of high quality Data Management activities for all phases of clinical trials meeting external client and regulatory requirements to agreed timelines and within budget/scope constraints. In this role you will be tasked with developing SOP's to support the business, and ensuring compliance with these SOP's to produce quality and timely deliverables. This role will proactively participate in departmental and cross-functional technology development and process improvement initiatives. This is a key role within the organisation serving as the internal expert in all areas of CDM processes and technology.

Key Responsibilities:

- Providing **data management support** for Australian and global clinical studies from study set-up through to closeout.
- Supporting the implementation, validation, maintenance and upgrading of clinical data systems including electronic data capture (EDC). Working with IT and external vendors, as required.
- Following CDISC conventions, oversee or perform EDC build activities including database design specifications; eCRF design and annotation, generation of data edit checks and data validations and data transfer specifications.
- Co-ordinate and participate in user acceptance testing (UAT) of clinical databases, including edit check testing.
- Management of the preparation and delivery of key clinical data management documents such as Data Management Plans (DMP), Data Validation Plans (DVP), Data Quality Plans (DQP), Edit Check Development and Validation documents, SAE/AE Reconciliation Plans and Data Transfer Specifications.
- Assist in reconciling AE/SAE data in safety database and /or other DM database, including, but not limited to, performing MedDRA and/or WHO Drug coding.
- Providing/overseeing EDC study trial training and creation of user guides.
- Function as DM liaison with cross-functional team members, external vendors and clients.
- Work with senior management to set global data strategy. Lead and/or participate in development and implementation of departmental initiatives, generating continuous quality improvement projects. Develop or improve data management SOPs and guidelines.
- Ensuring all aspects of data management comply with Good Clinical Data Management Practices (GCDMP).
- Supervision and mentoring of junior data management staff.

- Working with BD and clinical colleagues to prepare bid proposals, as required.

Experiences and Qualifications

- Bachelor's degree in computer science, life science, **mathematics** or related field or equivalent and relevant formal academic/vocational qualification.
- 8+ years data management experience in the pharmaceutical/biotechnology industry and exposure to global clinical data systems and processes.
- Working knowledge with numerous EDC (Electronic Data Capture) systems for study development.
- Experience in gathering requirements and preparation of specifications for database systems and integrations e.g. ePRO, laboratory data uploads, supply management, IVRS, IWRS, etc. would be highly regarded.
- Knowledge of all aspects of clinical trials from initial study set-up to study completion with an excellent understanding of the roles and responsibilities of all related disciplines – e.g. clinical operations and biostatistics.
- Knowledge of regulatory and industry standards (e.g. ICH/FDA guidelines, GCP, CDISC standards, GCDMP, 21 CFR 11, MedDRA and WHO Drug dictionaries etc.) and their application to Data Management practice.
- Demonstrated ability to understand and manage client expectations.
- Superior written and verbal communication skills.
- Previous experience leading Data Management Function would be highly regarded.

Company:

GreenLight Clinical Research is a privately owned clinical research company based in Sydney, Australia, which addresses the clinical trial needs of both local and international pharmaceutical, biotechnology and medical device companies. Our mission is to speed up the global development of safe and effective drugs while guaranteeing high standards of quality and ethics in clinical research. GLC's broad spectrum of services range from trial design through to regulatory submissions and post-marketing services.

If you are an energetic and driven clinical data management professional ready to lead and contribute to the success of the clinical data management function for this fast paced global organisation then this career opportunity is for you.

ADVERTISER: PHASTAR**CATEGORIES:** Health & Society**TAGS:** biostatistics, health, mathematics, medical, research, statistics, clinical statistics, statistical analysis**LOCATION:** Sydney **TYPE:** Full Time

Senior Statistician

Why PHASTAR?

PHASTAR is a specialist CRO, offering statistical consulting, clinical trial reporting, data management and medical writing services, by providing expert consultants and managing and delivering in-house projects.

If you would like to work with a team of expert statisticians, in a company run and managed by statisticians, where your skills will be valued and nurtured, then our roles may be right for you. PHASTAR are a team of expert statisticians and programmers, working in the medical field.

There are a number of reasons you may wish to join the PHASTAR team:

- Learn from PHASTAR's internal experts and from personnel with specialist PhDs.
- A better way to work: PHASTAR have a unique approach to statistical consulting and data analysis. Our approach ensures high quality consulting and data analysis.
- A relaxed place to work. PHASTAR encourages a hard working but friendly and sociable office environment.

Job description:

- Ability to lead a team of statisticians and programmers to manipulate, summarise and analyse clinical trial data using a variety of statistical methods, ultimately delivering clinical trial results to an agreed timeline with optimal quality
- Project management responsibilities, including allocating staff, predicting and planning resources
- Preparation and review of study documentation e.g. protocols and statistical analysis plans
- Ability to advise, mentor and teach both internal and external statisticians with regards to statistical and data analysis methods
- Function as a study expert across a number of studies, helping to clarify details on analysis methods for the internal PHASTAR team
- Responsible for ensuring the team meets the highest quality standards, and follows the principles detailed in PHASTAR's internal procedures
- Maintaining a positive & engaging client relationship with regards to statistical issues

Requirements:

- PhD or MSc in Biostatistics or related discipline
- Experience working within a clinical trials environment (Pharma, CRO or academic)
- Previous experience performing statistical analysis using SAS
- Excellent written and verbal communication skills

What we offer:

- Advancement of your career in an intellectually-stimulating, dynamic, supportive environment
- Variety of projects in statistical consultancy and clinical trial reporting (range of therapeutic areas and phases)
- Opportunities to get involved in the management of other statistical and programming staff members

ADVERTISER: Research Recruitment**CATEGORIES:** Health & Society, Business & Marketing**TAGS:** statistics, data analysis, data management, statistical analysis, quantitative research**LOCATION:** Sydney **TYPE:** Full Time

Senior Research Consultant (Quant)

The Client

Our client is dedicated to using its specialist expertise in social, health and government research services to advance social research outcomes in Australia. The company has an established track record of delivering quality projects and is acknowledged as a centre for excellence.

The Role

As part of the Quantitative Research team you will play a key role in day to day research decisions and client and project management. This involves managing all facets of research design/questionnaire setup, data management and analysis, quality control and research operations, report writing and client relationship management. You will have autonomy and opportunities to mentor and develop junior staff. This is a great opportunity to also further develop your area of expertise/interest.

The Requirements

We would love to hear from you if you enjoy delivering quality research along with the following:

- a minimum of 5+ years experience gained in a market research/social research agency
- relevant tertiary qualifications
- well developed quantitative research skills including sampling, questionnaire design, statistical analysis and reporting
- experience with longitudinal studies will be highly regarded
- an ability to contribute to publication standard reports
- strong client management and project management experience
- experience in conducting CATI is also desirable.

ADVERTISER: The University of Western Australia

CATEGORIES: Health & Society, Science & Environment

TAGS: statistics, biostatistics, statistical analysis, data analysis, coding, epidemiology, research

SALARY: \$96,210–\$114,250+ **LOCATION:** Perth **TYPE:** Full Time



Research Fellow, Epidemiology

Faculty of Health and Medical Sciences
School of Population and Global Health

- High profile project with international relevance
- Full-time (1.0 FTE) or part-time (0.8 FTE) appointment on a two year fixed term basis
- Level B: \$96,210 to \$114,250 plus 17% superannuation

The University of Western Australia (UWA) is ranked amongst the top 100 universities in the world and a member of the prestigious Australian Group of Eight research-intensive universities. With an enviable research track record, vibrant campus and working environments, supported by the freedom to 'innovate and inspire' there is no better time to join Western Australia's top University.

The team: the Cardiovascular Research Group within the School of Population and Global Health is a research intensive unit undertaking epidemiological research into various cardiovascular diseases, with a particular focus on monitoring trends over time using linked administrative data. This position relates to one of the projects within the group, focusing on the epidemiology of rheumatic heart disease (RHD) in Australia, health service utilisation and costs, as well as factors influencing the capacity of the health system to implement proven strategies for RHD across the prevention spectrum. The project is aligned to the End RHD Centre for Research Excellence, with the data directly contributing to policy recommendations about the optimal mix of interventions to achieve disease control. Our project team consists of researchers with expertise in RHD, other cardiovascular diseases, epidemiology, biostatistics, health economics, health systems research and Aboriginal health from The University of Western Australia, Telethon Kids Institute, Menzies School of Health Research (Darwin), and a range of other research units, government departments and agencies around Australia.

About the opportunity: you will join the research team on an NHMRC-funded grant investigating the Burden of Rheumatic Heart Disease (RHD) in Australia. As part of this exciting new role, you will co-ordinate project planning and the day to day running of the project. You will undertake complex epidemiological analyses investigating RHD burden, and will work with the Project investigator(s) to ensure appropriate management of the study budget and reporting/administrative requirements and develop effective communication channels between internal and external project stakeholders and other collaborators. You will also lead the preparation of research papers for publication in scientific journals in collaboration

with the other group members and write and review scientific content for reports. In addition, you will present research findings at national and international scientific forums, contribute to dissemination activities and workshops with key stakeholders and contribute to seminars and supervision.

To be considered for this role, you will demonstrate:

- a PhD in epidemiology, statistics, health sciences or relevant field (exceptional Masters level graduates may be considered);
- sound knowledge of research methods in epidemiology and biostatistics;
- experience and proven ability in data management and quantitative analysis of large, complex data including merging data sets, data quality checking and multivariate regression techniques;
- high level proficiency with data analysis software (e.g. STATA, SAS or SPSS);
- project management and co-ordination skills;
- a proven ability in the preparation and publication of manuscripts in peer-reviewed journals;
- an ability to take initiative, work independently as well as collaboratively with a research team; and
- highly developed and effective interpersonal and communication skills.

Full details of the position's responsibilities and the selection criteria are outlined in the position description and applicants should clearly demonstrate they meet the selection criteria in a separate document.

About you: a postdoctoral or experienced masters level public health researcher, you will have intermediate to advanced epidemiological/biostatistics skills applied to the analysis of linked data and excellent organisational and communication skills, including recent experience project managing similar projects. You will also be passionate about translational research, working with low resource populations and in a supportive work place environment alongside colleagues with diverse research skills.

Take your maths career to a new level

Whether it is at the nanoscale or a cosmic level, maths is part of everything we do.

Turn your passion for mathematics into a high achieving career in mathematics, statistics, actuarial studies, quantitative finance, meteorology, bioinformatics, teaching or in one of the many industry sectors where it plays an essential role.

At The University of Queensland you can choose from the broadest range of specialisations in pure mathematics, applied mathematics and statistics with Bachelor programs in Mathematics, Science, Advanced Science and Arts, or expand your options exponentially with a dual program.

UQ also offers postgraduate study options in data science, mathematics, financial mathematics and statistics.

Develop your advanced critical, analytical and abstract thinking skills in classes taught by world class researchers and participate in industry projects, research-based courses, and an active student society.

Find out more: future-students.uq.edu.au



GROUP
OF EIGHT
AUSTRALIA



SCIENTIST - RESEARCHER - ASTRONOMER - PHYSICIST
METEOROLOGIST - GEOLOGIST - BIOINFORMATICIAN
BIOSCIENTIST - ECOLOGIST - ENVIRONMENTAL SCIENTIST
CLIMATE SCIENTIST - MATHEMATICIAN - STATISTICIAN

SCIENCE & ENVIRONMENT

Everyday applications

From astrophysics and chemistry to biology and zoology, many scientists use mathematics to understand how the world works and why. Your opportunity for discovery is limited only by your imagination.

JOB KEYWORDS

BIOLOGY - ENVIRONMENT - BIOSCIENCE - PHYSICS - CHEMISTRY - MATHEMATICS
STATISTICS - GEOSCIENCE - ECOLOGY - RISK ANALYSIS - DATA ANALYTICS
MODELLING - CLIMATE SCIENCE - BIOSTATISTICS - BIOINFORMATICS

ALAN DUFFY

ASTROPHYSICIST, SWINBURNE UNIVERSITY

LEAD SCIENTIST OF THE ROYAL INSTITUTION OF AUSTRALIA

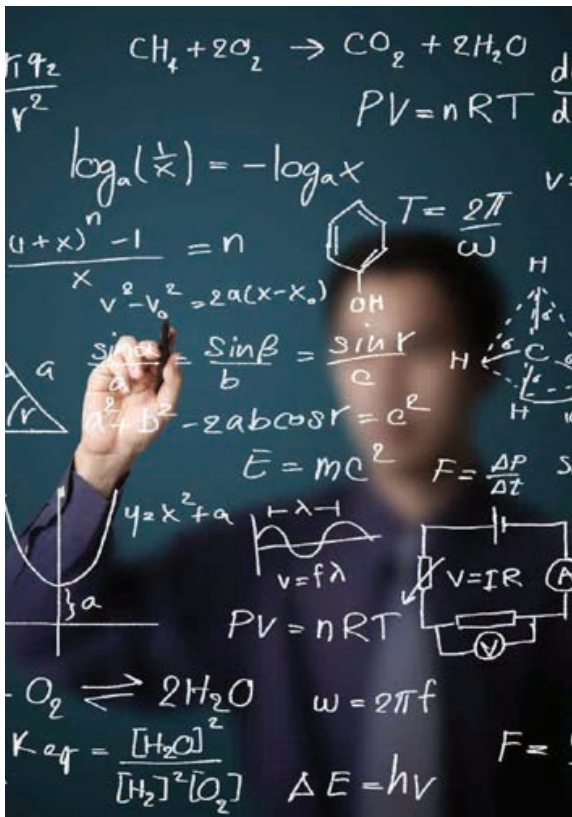
Growing up in Northern Ireland, I wasn't confident in maths – I wasn't the top of the class that's for sure. But the dark skies over there give you a clear view of the night sky, and I wanted to know how the world worked, especially space. Through Stephen Hawking's *A Brief History of Time*, I discovered black holes, expanding space and collapsing stars. How could you not want to understand and work on that?

“ If you want to speak the language of the universe, it's maths. I'm fluent in solving physics equations to tell the stories of exploding stars and swirling galaxies. For me, maths was a tool to understand physics and chemistry. Without it, we couldn't calculate how galaxies grow or test theories of dark matter. ”

I didn't know exactly what I wanted to do in life when I was at school. Most people don't. Now I get to explore the mysteries of the universe, teach inspiring students and talk about exciting discoveries on TV. What more could I ask for?

Alan is a careers ambassador for AMSI's Choose Maths project





Choose a future that adds up.

Are you a critical thinker who enjoys challenges such as modelling and solving real-world problems or calculating risks? Do you want to use your analytical and computational skills to help change the future of global organisations? Then turn your passion into a career with a science degree majoring in:

- Actuarial Science
- Data Science
- Financial Mathematics
- Industrial and Applied Mathematics

Our majors have been created in response to industry demand, preparing you for the jobs of the future.

scieng.curtin.edu.au/maths

Make tomorrow better.  Curtin University

ADVERTISER: CSIRO

CATEGORIES: Science & Environment

TAGS: data analysis, data management, modelling, climate change

SALARY: \$95,369–\$103,205+ **LOCATION:** Melbourne/Hobart **TYPE:** Full Time



Research Scientist - Coastal Climate Projections

- Are you interested in coastal climate projections?
- Work with internationally recognised scientists & help combat these changes
- Join CSIRO - Australia's premier science & technology research organization

The Position

CSIRO's Oceans & Atmosphere is seeking to appoint a physical oceanographer/physicist/engineer with skills in coastal ocean modelling, the analysis of related data products and the development of strategies to address problems for engineers and coastal managers in the context of a changing climate. In this position you will apply novel techniques and analysis skills to communicate scientific results practically to maximise information relevance and uptake.

The position requires a strong numerical background, ability to manipulate and analyse large datasets, and strong communication skills to address coastal ocean challenges. You will be a key member of a team of scientists focussed on ocean processes which most strongly affect coastal stability, from operational to climate time-scales.

Your duties/responsibilities will include:

- Incorporate novel approaches to scientific investigations by developing original concepts and ideas for new types of analyses and/or adapting methods from other fields.
- Contribute to development of scientific code for numerical modelling and extreme event analyses.
- Be responsible for client liaison, data management and processing, and dissemination of data for existing and future projects in an independent manner.

To be successful you will need:

- A doctorate and Post-doctoral research experience or equivalent research experience, in a relevant discipline area, such as meteorology, oceanography, coastal engineering, marine science, mathematics, physics.
- Familiarity with national/international oceanographic/climate research products, e.g. tide gauge, satellite altimetry and climate reanalysis data sets.
- Experience in running hydrodynamic and/or wave models, including pre- and post-processing data (e.g. extracting boundary conditions from oceanographic research products).

Who we are: The Commonwealth Scientific and Industrial Research Organisation (CSIRO)

Oceans and Atmosphere provides the knowledge to manage Australia's marine estate and atmospheric environment, plan for and respond to weather and climate related natural hazards and ensure sustainable coastal development and growth of marine industries.

We imagine. We collaborate. We innovate. At CSIRO, we do the extraordinary every day. We innovate for tomorrow and help improve today - for our customers, all Australians and the world. We do this by using science and technology to solve real issues. Diversity is the compass that navigates our innovation. We provide an inclusive workplace that respects, values and actively pursues the benefits of a diverse workforce.

ADVERTISER: Macquarie University

CATEGORIES: Science & Environment

TAGS: Research, mathematics, applied mathematics, mathematical modelling, mathematical sciences

SALARY: \$99,879–\$118,174 **LOCATION:** Sydney **TYPE:** Full Time



MACQUARIE
University

Lecturer in Applied Mathematics

Macquarie is the university of pioneering minds. Globally recognised as one of Australia's leading research universities, Macquarie is a place where extraordinary new possibilities come to light. We've helped people to hear, introduced wireless internet technology to the world and broken through traditional boundaries by appointing Australia's first female vice-chancellor.

In Macquarie's Faculty of Science and Engineering you'll join passionate researchers and educators blazing new trails in the spirit of discovery and exploration. Encouraged to think boldly, and supported by some of Australia's most outstanding facilities, brilliant minds converge in our Faculty to create incredible new possibilities: the world's first attempt to synthesize complex life, the creation of Wi-Fi, the discovery of dancing dwarf galaxies, and the development of blue LED light. Inspired by challenge and opportunity, we look forward to welcoming you as we imagine a new future together.

The Role

The Department of Mathematics is looking to appoint an outstanding applied mathematician whose research involves mathematical modelling with applications in science, engineering, and the technological and biological sciences. Applicants with research interests in asymptotic analysis, dynamical systems, fluid mechanics, numerical analysis/scientific computing and waves are particularly encouraged.

Your Application must:

- Include your résumé/Curriculum Vitae
- Explicitly address the selection criteria which are given below
- Include your residency status
- Include the names, addresses and/or email details of three referees

Selection Criteria

To be considered for this position, candidates must submit a resume and a separate document responding to the selection criteria below, as part of their application: Essential:

- A PhD or equivalent in an area of Applied Mathematics, or a related field
- Demonstrated research ability that supports the Department's research interests in applied mathematics

- A strong record of research achievements as evidenced by high quality publications
- The ability to supervise postgraduate students
- The ability to communicate clearly and effectively in English
- The ability to teach at all levels, including lecturing to large classes
- The ability to contribute to a collegial environment in furthering the goals of the Department
- Demonstrated ability to act as an advocate for the Department and the discipline both within the University and also to external groups

Desirable:

- A record of external research grant support
- A record of successful supervision at post-graduate level
- A genuine commitment to the development and delivery of innovative teaching of mathematics

ADVERTISER: Monash University

CATEGORIES: Science & Environment

TAGS: Research, postdoctoral research, mathematical sciences, dynamical systems, geometry, mathematics

SALARY: \$66,706–\$90,532 **LOCATION:** Melbourne **TYPE:** Full Time



MONASH
University

Research Fellow (Chaotic Dynamical Systems)

Everyone needs a platform to launch a satisfying career. At Monash, we give you the space and support to take your career in all kinds of exciting new directions. You'll have access to quality research, infrastructure and learning facilities, opportunities to collaborate internationally, as well as the grants you'll need to publish your work. We're a university full of energetic and enthusiastic minds, driven to challenge what's expected, expand what we know, and learn from other inspiring, empowering thinkers.

The Opportunity

A candidate is sought for a position of Postdoctoral Research Fellow on a project studying chaotic dynamical systems on 3-dimensional manifolds. Candidates with expertise in any of the fields of dynamical systems, ergodic theory, foliation theory, and the geometry and topology of 3-D manifolds are strongly encouraged to apply.

The Postdoctoral Fellow will conduct research at the School of Mathematical Sciences, Monash University, under the guidance of Dr Andy Hammerlindl. This research will focus on topics related to an ARC Discovery Project on geometric advances in partially hyperbolic dynamics. This project is in collaboration with Georg Gottwald (University of Sydney), Christian Bonatti (Université de Bourgogne), and Rafael Potrie (Universidad de la República – Uruguay). There will also be opportunities for the Postdoctoral Fellow to collaborate with others in the School of Mathematics at Monash and pursue their own independent research programme.

Applicants must have a PhD in a relevant discipline, proven ability to perform collaborative research, and the potential to publish in high quality journals.

This role is a two year full-time position, with the possibility of further extension. Flexible working arrangements may be negotiated.

Maths + Biology = Game-Changing Science



During the 2014 Ebola outbreak, **computational biologists** identified key sources of the infection by modelling where and when new cases occurred, assisting front-line medical and public health workers.



Computational biologists found that fishing practices could be made more sustainable by changing the design of fishing nets, so that they take the same mass of fish from the ocean while doing less damage to the remaining population.



Great strides are being made by **computational biologists** trying to understand what parts of the genome play a role in controlling visible characteristics, like hair colour and ear shape.

How will you change the game?

Get started at bsc.unimelb.edu.au



SCIENTIST - RESEARCHER - ASTRONOMER - PHYSICIST
METEOROLOGIST - GEOLOGIST - BIOINFORMATICIAN
BIOSCIENTIST - ECOLOGIST - ENVIRONMENTAL SCIENTIST
CLIMATE SCIENTIST - MATHEMATICIAN - STATISTICIAN

ADVERTISER: CSIRO Data61**CATEGORIES:** Science & Environment**TAGS:** applied mathematics, statistics, data analysis, statistical analysis, quantitative research, risk assessment, modelling, risk analysis, risk, research, bioscience**SALARY:** \$95,000–\$128,000 **LOCATION:** Hobart **TYPE:** Full Time

Research Scientist in Applied Biological Modelling

- Are you a talented quantitative researcher?
- Assess the risks of the next generation of synthetic biology products
- Join CSIRO Data61, the largest data innovation group in Australia

The Position

CSIRO's Data61 is seeking a talented quantitative researcher for an exciting role, extending and complementing the skill set in our team of statisticians and probabilistic risk assessment practitioners in Hobart, Tasmania.

You as the successful candidate will be working primarily on the application and development of models that describe and predict how the synthetic biology products, including gene-drive modified organisms, will spread through a landscape and impact target and non-target organisms.

***NB: This position is offered across two levels, the appointment level will be determined by the qualifications, skills and relevant experience of the successful candidate.**

To be successful you will need:

- A doctorate in applied mathematics, quantitative genetics, population ecology or other relevant discipline.
- Demonstrated expertise in spatio-temporal modelling of population genetics and/or biological populations.
- High level computational and programming skills, ideally in the R computing language, and a willingness to learn other languages if needed.
- A demonstrated understanding of probabilistic methods and Bayesian statistical inference.

Who we are: The Commonwealth Scientific and Industrial Research Organisation (CSIRO) (<http://www.csiro.au/>)

At CSIRO, we do the extraordinary every day. We innovate for tomorrow and help improve today - for our customers, all Australians and the world. We imagine. We collaborate. We innovate.

We work flexibly at CSIRO Data61, offering a range of options for how, when and where you work. Talk to us about how this role could be flexible for you.



QIMR Berghofer
Medical Research Institute

Mathematical neuroscience research fellow

- Innovative biomedical modelling
- Attractive salary packaging & superannuation options
- Potential to participate in commercialization

About QIMR Berghofer:

QIMR Berghofer is a world leading medical research institute focussed on Cancer, Infectious Diseases, Mental Health, and Chronic Disorders. Our researchers work closely with scientists, clinicians and other research institutes to translate discoveries into prevention strategies, new diagnostics and better treatments that save lives.

About the team:

The Systems Neuroscience Group is a multidisciplinary team who undertake innovative computational modelling and analysis of brain activity in health and disease.

Role Purpose / Responsibilities:

You will contribute to developing and analysing new mathematical models of large-scale brain activity, including biophysical models and networks of non-linear oscillators; simulate computational models on GPUs or high performance computing clusters, and collaborate in applying these to clinical and neuroscience research; perform innovative analyses of high-dimensional neurophysiological and neuroimaging data; contribute to experimental design and prepare manuscripts for related studies; participate in intra-mural group activities, including presentation at lab meetings and collaboration with other lab members and clinicians.

About you:

The successful applicant will possess the following:
PhD in mathematics, physics, bioengineering, computer sciences or related field; demonstrated ability to implement mathematical methods in code; evidence of strong oral and written communication skills; Ideally candidates may also have a published track record in analysis of non-linear dynamical systems, particularly neural mass or neural field models or coupled nonlinear oscillators; previous experience with GPU programming or high performance computing clusters; previous experience in neuroscience research; or expertise in time series analysis or signal processing.

What we offer:

- Salary Packaging
- Bonus Superannuation
- State of the art facilities
- Stimulating work setting focused on cutting edge medical research
- Supportive/collaborative team environment

Biarri

Do you have what it takes to transform the most complex projects carried out by the largest companies around the world with maths?

Find out today.

biarri.com/careers

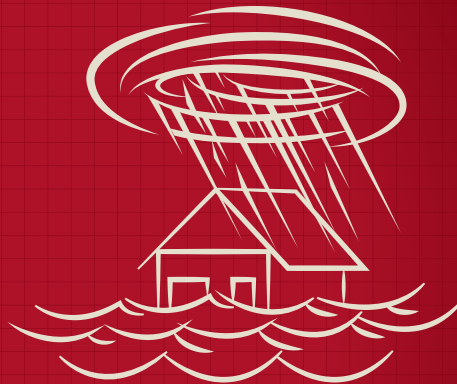
The answer to this

$$\frac{dx}{dt} = \sigma(y - x)$$

$$\frac{dy}{dt} = x(\rho - z) - y$$

$$\frac{dz}{dt} = xy - \beta z$$

can help predict this



CRICOS Provider 00002J

If you want to help predict the next cyclone, studying maths at Macquarie University is a great place to start. Meteorologists use models like the Lorenz equations to predict and explain atmospheric convection and other features of weather systems. Whatever your future holds, studying maths in the Bachelor of Science will give you the answers you need.

Find out more at courses.mq.edu.au/BSc



SECURITY & DEFENCE

A billion-dollar business

From defence, finance and insurance to online threats, security is a billion-dollar growth industry reliant on mathematics, statistical analysis, and computing techniques to minimise and tackle risk.

JOB KEYWORDS

FORENSICS - FRAUD - CRIMINOLOGY - DATA ANALYTICS - MODELLING
DEFENCE - LOGISTICS - RISK ANALYSIS - INFORMATICS

PUXUE QIAO

INTERN, EPSILON SECURITY

As changing lifestyles and demographics of urban populations fuel the rapid growth of high-density housing, understanding factors influencing the risk of crime occurrence in such buildings has become a vital tool for law enforcers.

To tackle this problem, Epsilon Security teamed up with APR.Intern to place postgraduate student, Puxue Qiao, and statistician Dr Davide Ferrari from The University of Melbourne, to establish a standard method in evaluating building crime rates through modelling which assesses property risk and identifies safety solutions.

“ The main concern is the lack of a standard method to evaluate security levels of buildings for comparisons. To do this we needed to develop a data-driven computer model to assess the security risk and potential crime exposure of a building. ”

Puxue worked with Epsilon Security to build a generalised mixed-effect model, allowing them to make predictions of crime occurrences, whilst obtaining security ratings for each individual building.

The success of this project led the Epsilon Security team to apply for an ARC Linkage Projects grant to continue their work, with the objective of developing a fully automated tool for risk ratings in buildings.

Australian Postgraduate Research (APR) Intern is the only national all-sector all-discipline internship program placing PhD students into business. A not-for-profit program, APR.Intern is driving innovation and accelerating women in STEM through short-term industry and university research collaborations.



ADVERTISER: Bluefin Resources
CATEGORIES: Security & Defence, Finance & Money
TAGS: data analytics, crime analytics, analytics, predictive modelling, machine learning, fraud, banking
LOCATION: Sydney **TYPE:** Full Time



Senior Manager – Financial Crime Analytics

- Sponsorship & relocation on offer for international candidates
- Leading Australian Financial Institution
- Unique Senior Manager opportunity

A leading Australian Bank is looking for a Senior Manager to join its financial crime team. This is an exciting time to join a team who have significant investment and are undergoing a major transition into a world class analytics function. Sponsorship and assistance with relocation are also on offer for international candidates interested in relocating to Sydney.

You will take accountability for leading a team of 15 who are responsible for analysing financial crime data and implementing detection strategies which minimise the risk of financial crime.

Key accountabilities;

- Development of a world class financial crime mitigation strategy
- Lead a large team to ensure detection systems mitigate financial crime risks
- Advise the business on regulatory and compliance issues in relation to detection monitoring
- Minimise costs incurred to the bank by driving end-to-end process improvements across operational teams and detection systems
- Develop a high performing culture by leading and motivating a large team of analytics experts
- Build effective internal and external customer relationships
- Develop insights and strategic recommendations utilising large volumes of data

To be considered for the role you will need;

- 8+ years' experience in data analytics
- Experience working in financial crime analytics; fraud, AML/CTF and Sanctions
- Track record of building and developing engaged and high performing teams
- Drive innovation and stay on top of global best practice
- Understanding of advanced analytics; predictive modelling, machine learning etc.
- Demonstrated experience in using analytics to drive strategic change

This is a unique senior opportunity within one of Australia's leading brands. Sponsorship is on offer for those interested in relocating to Sydney from abroad.

ADVERTISER: Victoria Police
CATEGORIES: Security & Defence
TAGS: statistics, statistical analysis, data management
SALARY: \$65,713–\$79,790 **LOCATION:** Melbourne **TYPE:** Full Time



VICTORIA POLICE

Statistician

- Working within the Corporate Statistics Unit, Capability Department located at the Victoria Police Centre, 637 Flinders Street, Docklands 3008*

About the role:

As the successful applicant you will be reporting to senior statisticians and your role will include:

- Participate and/or assist in developing and delivering effective and efficient statistical management programs, methodology and systems that supports Victoria Police corporate goals, strategies, as well as public sector and social requirements.

Some of your duties will include:

- Service requests for data/statistics to internal and external stakeholders using corporate data sets
- Maintain corporate statistical databases and data from operational systems
- Ensure data quality assurances are conducted for the reliability of the data including monitoring backlogs.
- Assist in supporting a large number of Intel/DIU analysts with their day-to-day queries in relation to Statistics and SAS EG
- Generate, maintain and publish regular statistical reports

As the successful applicant, you will have:

- Sound knowledge of and demonstrated experience in the application of statistical management
- Well-developed ability in the utilisation of statistical programs, methodology and systems
- Experience in statistical analysis and evaluation techniques

Requirements and relevant information:

- Tertiary qualifications in Statistics, Computer Science or Social Science is desirable
- Experience in statistical analysis using Statistical Software is highly desirable
- Experience in the use of SAS software is advantageous
- Applicants must be an Australian Citizen, Permanent Resident or hold a valid work permit or visa

**Your usual place of work will be within the Corporate Statistics Unit, Corporate Strategy and Operational Improvement Department; however you may be required to work at any other division within the Department/Command as required.*

ADVERTISER: Bank of Queensland

CATEGORIES: Security & Defence, Finance & Money

TAGS: data analytics, crime analytics, quantitative analysis, problem solving skills, fraud, banking

LOCATION: Brisbane **TYPE:** Full Time



Senior Analyst Financial Crimes

- Join ASX 100 finance leader – Australia's Most Loved Bank!
- Senior Financial Crimes Analyst
- Brisbane HQ based – Full time permanent

About us:

Join one of Australia's top 100 listed companies where our vision is to create Australia's Most Loved Bank! BOQ is passionate about providing opportunities for you to develop your career as we continuously adapt and deliver in a transformational and competitive environment.

We support a flexible workplace and have a collaborative team environment. You will be part of our Group Security & Business Resilience team. This position is responsible for developing, supporting and maintaining analytical frameworks and quantitative analytical techniques to identify, quantify and manage Group Security & Business Resilience risks.

The role:

We are currently seeking an experienced Senior Financial Crimes Analyst to support the Manager, Financial Crimes Analytics, Operations and Systems. The Senior Financial Crimes Analyst position is responsible for the compliant operations of their team and all functions, processes and personnel within the group. It is also expected to provide guidance and support at all times which ultimately contribute to the Financial Crimes team goals. This includes leading and motivating the team of FCAs to achieve outstanding levels of service at all times when dealing with customers, investigating cases and/or dealing with other stakeholders during normal business hours and also weekends/overnight. The role includes interrogation of data to determine fraud patterns. Keeping up with the latest fraud trends is essential using industry and other FIs resourcing. Fraud analytics may require the establishment of new processes/procedures, system reprogramming and potential implementation of new initiatives to reduce the fraud pattern and risk to BOQ and our Customers.

About you:

To be successful in this role you will demonstrate the following skills:

- Prior experience as a Financial Crimes Analyst (or similar) within a financial services institution.
- Proficient in analysing fraud detection rules in at least one of the following – visa debit card, internet and merchant fraud - and ability to become proficient in the others.
- Experience in analytical software and ability to quickly master new analytics software.

- Sound knowledge of AML, BCM, Security Operations, Compliance and Fraud Trends.
- Establishment of new processes/procedures
- Ability to do system re-programming
- Advanced problem solving skills and the ability to apply sound judgment.
- Ability to manage sensitive customer interactions effectively.

BOQ benefits:

- Discounted financial products
- Salary packaging options
- Purchase annual leave
- BUPA Corporate Plan



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WORLD***

mathematics

STUDY A BACHELOR OF MATHEMATICS AT THE UNIVERSITY OF NEWCASTLE

The University of Newcastle offers one of the few specialised Bachelor of Mathematics programs available in Australia. Our leading academics contributed to our university being ranked among the top in the country for applied mathematics in the 2015 Excellence in Research for Australia rankings, as well as being ranked in the top 300 in the world according to the 2015 QS World subject rankings**.

Without maths, interpreting the real world would not be possible. Mathematics is the language of science and underpins most technological advances that we rely on every day. It enables modern society to operate more efficiently, to invent new technologies and to understand and modify the world around us.

According to a 2014 CareerCast study, the job with the best growth prospects is a mathematician, which has a projected career growth of 23% by 2022.

Mathematics is both a rewarding and engaging field to work in with graduates finding employment in education, government agencies, top tier firms and research roles.

Studying a Bachelor of Mathematics at the University of Newcastle will give you essential skills and knowledge in logic, mathematical modelling, experimental design and data analysis.

Find out more newcastle.edu.au/mathematics

SPORTS ANALYST - SPORTS STATISTICIAN - FOOTBALL
ANALYST - SPORTS ENGINEER - SPORT SCIENTIST

SPORT & RECREATION

Look beyond the game

Sport may not seem to be particularly mathematical, but at the highest levels it's all about optimising performance and strategies for the win. From using engineering skills to designing new sports technologies for performance analysis and game play, it's putting your passion for both sport and numbers to work.

JOB KEYWORDS

STATISTICS - DATA SCIENCE - DATA ANALYTICS - DATA SCIENCE
PREDICTIVE ANALYTICS - SPORTS ENGINEERING - SPORTS SCIENCE
OPTIMISATION - MODELLING - PROBLEM SOLVING

JESS TAVROU

FOOTBALL ANALYST, CARLTON FOOTBALL CLUB

A week can be a long time in footy. And every week I'm part of the team using statistics to build a game plan for Carlton. From team selection, player rotations, match ups or formations, we analyse every team in the competition to identify patterns and strategies that might offer insight into how to approach the match.

Sport has always been a big part of my life. I was the type of kid that often found it difficult to concentrate in a classroom environment and craved sport, music and outdoor education.

“A teacher in high school inspired me to study engineering and would relate my specialist maths questions to sport. It was a brilliant way to keep me interested and help me understand difficult concepts.”

I started studying a Bachelor of Product Design Engineering at Swinburne, but sport was calling me. I completed a Bachelor of Sports Engineering at Victoria University and eventually followed it up with a Master of Football Analytics.

Becoming a sports analyst means having a genuine interest in the sport, not just the team. Work on your ability to put yourself in the minds of players and coaches – then swap to an objective viewpoint. Be prepared to do internships, have ideas for your own projects and learn a coding language.

Jess is a careers ambassador for AMSI's Choose Maths project





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Perth | Singapore | Dubai

Expand your career opportunities with a Mathematics and Statistics major

Whether you want to pursue a career in business and finance, solve some of the world's most pressing issues as an engineer, or make the next big break through in science, a mathematics and statistics major can broaden your career options.

Our Mathematics and Statistics degree focuses on applied data analysis and mathematical modelling that give you exposure to real industry problems, so you have the skills you need in the workplace when you graduate.

murdoch.edu.au

Explore our mathematics and statistics courses at murdoch.edu.au/science

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At USQ, you can choose from our suite of undergraduate and postgraduate mathematics and statistics majors covering professionally relevant study areas like Applied Mathematics and Data Science.

For those who need to study on the go, we also offer the only online mathematics and statistics majors in Queensland. With personalised support and small class sizes, you can create your future with USQ.

 usq.edu.au/study



UNIVERSITY
OF SOUTHERN
QUEENSLAND

SPORTS ANALYST - SPORTS STATISTICIAN - FOOTBALL
ANALYST - SPORTS ENGINEER - SPORT SCIENTIST

ADVERTISER: Ashdown People

CATEGORIES: Sport & Recreation

TAGS: data analysis, data analytics, data science, predictive analytics, modelling, statistics, predictive modelling, machine learning, problem solving skills, sport

LOCATION: Sydney **TYPE:** Full Time



ashdown
PEOPLE

Data Scientist - Predictive Analytics for Sports

Are you interested in Predictive Analytics for Sport? In this role you will act as a Data Scientist within the Group Modelling Team.

Skills & Experience required

You must possess a passion for data and sports with an in depth level understanding of statistics and the application of statistical techniques to data analysis, specifically in the field of predictive model development.

- Minimum 5 years' commercial experience
- Exceptional academic record
- University studies in a quantitative field such as mathematics / statistics (or engineering) Bsc (hons), MSc+
- PhD & Research Background
- Artificial Intelligence
- Predictive Analysis
- Machine Learning
- Open Source - Python, Spark
- Experience using quantitative software packages (R, Python, Matlab, Mathematica)
- Exposure to big data processing frameworks (Apache Flink, Spark, Beam) is an advantage
- Exposure to object-orientated programming or a scripting language is an advantage
- Knowledge of SQL / understanding of relational database concepts is an advantage
- Proficient Excel / Tableau skills, with ability to analyse and present summary level data effectively
- Strong problem solving skills, ability to work in a team with an eye for detail
- Strong communication skills with fluency in English and excellent writing skills
- A passion for Sports

JUMP THE QUEUE WITH AUSTRALIA'S 1ST BACHELOR OF SCIENCE IN ANALYTICS

- > By 2018, the USA alone could face a shortage of around 1.5 million data analysts with the knowledge and skills to manage big data to help businesses make effective decisions. (2011 McKinsey report)
- > Study the UTS Bachelor of Science in Analytics and combine with another discipline to broaden your employment opportunities.
- > Add on our internship program and start building your own network while studying.

More details, visit www.uts.edu.au/future-students/find-a-course/courses/c10384

"If you excel at Mathematics, do an Analytics degree at UTS. You will gain real-world practical experiences, work on interesting problems and be rewarded with a well-paid job."

Ignatius McBride

UTS Graduate in Mathematics, Banking Analyst at Australian Prudential Regulator Authority

science.uts.edu.au/future

UTS is the #1 young University in Australia based on Times Higher Education 100 under 50 rankings and QS top 50 under 50, 2015.

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IMAGE: ASPECT STUDIOS / 20099

NO.1
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AUSTRALIA'S #1
YOUNG UNI**

COMPUTER SCIENTIST - DATA SCIENTIST
SOFTWARE ENGINEER - GAME DEVELOPER
APP DEVELOPER - PROGRAMMER - DATA ANALYST

TECHNOLOGY

Distinguish yourself from the rest

Mathematics is fast becoming a toolbox essential in the rapidly evolving, data-driven world of technology, with these skills vital to understand, simplify and deeply comprehend new challenges.

JOB KEYWORDS

PROGRAMMING - TELECOMMUNICATIONS - ELECTRONICS - COMPUTER SCIENCE
INFORMATION TECHNOLOGY - DATA SCIENCE - DATA ANALYTICS - OPTIMISATION - CODING
PROBLEM SOLVING - WEB ANALYTICS - MACHINE LEARNING - INFORMATION SCIENCE

CHRIS FERRIE

PHYSICIST, CENTRE FOR QUANTUM SOFTWARE & INFORMATION, UNIVERSITY OF TECHNOLOGY SYDNEY

I didn't dislike school, but I hadn't thought about university until my Year 12 Physics class. It seemed like a great way to keep solving fun maths problems and unlock a deeper understanding of the world.

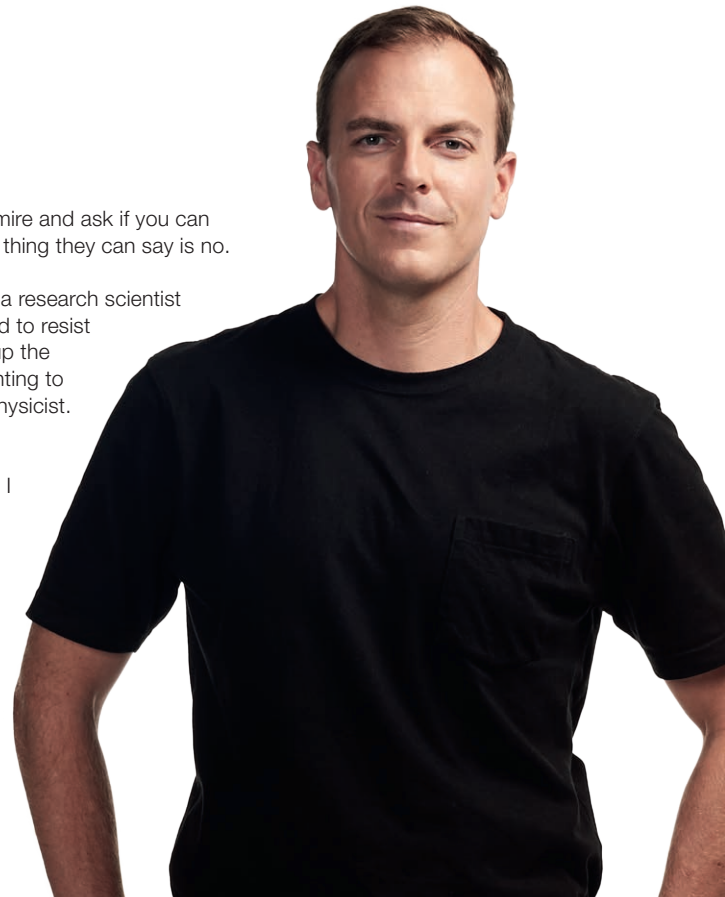
“My formal subjects gave me a good foundation in skills and jargon. But it wasn't until I did research – real research – that I felt the challenge and thrill of discovery. For a moment in history, I had created the most powerful mid-infrared laser pulse in the entire universe! What a powerful feeling. I love solving problems my own way and maths gave me the tools I needed to do it.”

Study is important, but so is networking and communication. Decisions are made by people with opinions and feelings.

Look up a professor you admire and ask if you can help on a project. The worst thing they can say is no.

On my journey to becoming a research scientist in applied mathematics, I had to resist being put in a box. I shook up the academic status quo by wanting to be a mathematician and a physicist. They said I couldn't be both. But I ended up in a research centre that didn't exist when I started, in an emerging field where maths meets physics, chemistry, computer science and engineering.

Chris is a careers ambassador for AMSI's Choose Maths project



ADVERTISER: Tetracon**CATEGORIES:** Technology, Security & Defence**TAGS:** mathematics, statistics, programming, software engineering, big data, coding**SALARY:** \$90,000–\$110,000 **LOCATION:** Adelaide **TYPE:** Full Time

Big Data Software Engineer

Our Client is at the forefront of research and development of robust tools that efficiently extract intelligence and unforeseen insights from "Big Data". Working with Australia's Defence and National Securities agencies, these solutions will maximise the ability to make critical decisions faster and more accurately - helping to build a safer and more secure nation.

To address this need, our Client is looking for Software Engineers to write Javascript/HTML web apps with ReactJS, and back-end services using modern Java 8. Most of their projects use Big Data technologies (scale-out NoSQL graph databases), stream processing frameworks, distributed message brokers (think Hadoop, Spark, Kafka, Elasticsearch), so any understanding of Big Data environments would be a definite bonus!

This organisation prides itself on doing Agile the right way - you'll need to be a good communicator and be able play nicely with others. The cross-functional teams provision infrastructure, write code, deploy apps and debug production issues.

We're looking for strong coders, but you'll get bonus points if you can admin a database or know your way around Linux. To be successful in this role you will have:

- A degree in software engineering, computer science, mathematics or statistics;
- A minimum of five years of experience in software engineering;
- Strong Java programming experience;
- Javascript, HTML & CSS programming experience (using frameworks such as ReactJS/Angular);
- Designed, implemented and tested software components; and
- The ability to work in an Agile environment

Ideally, we see the perfect candidate as someone who has had experience with stakeholder engagement in geographically distributed teams; has worked with Big Data technologies such as Hadoop, Spark and graph databases; and is comfortable with search technologies such as Elasticsearch, solr, and lucene.

In return you will have the opportunity to be a part of and contribute to a great culture and work environment in either Adelaide or Canberra; will face challenging problems and learn to solve them with other smart people; and contribute to the on-going security of Australia's great way of life... there is also

- Competitive salary;
- Flexible work hours;
- Comfy chairs; and
- Delicious coffee

Tetracon acknowledge the unique contribution that all potential candidates can bring in terms of culture, ethnicity, race, gender, nationality, age, religion, disability, sexual orientation, education, experiences, opinions and beliefs - in acquiring talent for our clients, diversity simply means good business sense! That said, applicants must be eligible to apply for an Australian security clearance.

ADVERTISER: iRecruit**CATEGORIES:** Technology**TAGS:** mathematics, statistics, programming, software engineering, coding**LOCATION:** Adelaide **TYPE:** Full Time

Software Engineer - Java

This is an opportunity to join the most exciting data analytics organisation in Australia!

Located on the CBD fringe, you will work in an environment that combines innovation and technology in a truly unique and enviable facility that boasts character and class.

Great work challenges are guaranteed, working on leading edge technology, alongside a passionate team, in a fun and relaxed environment.

We would love to hear from software engineers that meet the following criteria:

- Strong Java development experience
- Javascript, HTML & CSS programming experience, using the React and/or AngularJS frameworks
- Strong RESTful web service design and development experience (JSON).
- Expert in Java technologies; including Core Java, Messaging products (JMS, ActiveMQ), web services, XML, JSON;
- Web Development technologies - HTML5, CSS3, JQuery, JSP, servlets, Struts & Spring;
- Experience with Agile software development framework (Scrum);
- Experience developing performance sensitive SOA systems;
- A degree in engineering, computer science, mathematics or statistics

As these roles require candidates to be eligible for a security clearance, we ask that only Australian Citizens apply.

ADVERTISER: Genesis**CATEGORIES:** Technology**TAGS:** mathematics, statistics, data science, data analytics, problem solving skills, quantitative methods, coding, modelling, machine learning**SALARY:** \$100,000+ **LOCATION:** Sydney **TYPE:** Full Time

Data Scientist – Junior to Mid Level

- Mid level **Data Scientist** Role
- Paying 110K Package
- 2+ (commercial) Years experience mandatory as a **Data Scientist**
- Permanent role

What you will be doing! The mid-level Data Scientist will be working with established programmatic and quantitative methods to find patterns and relationships in large data sets; conducting mathematical, statistical or other data-driven problem solving analysis to identify business operations or intelligence questions by internal and external customers. You will be given guidance by CTO and Managing Director.

Knowledge, Skills, Abilities:

Working knowledge appropriate analytic methods and methodological tools in one or more of the following areas:

- Applied mathematics (e.g. probability and statistics, formal modeling, computational social sciences)
- Computer programming (e.g. programming languages, math/statistics packages, computer science, machine learning, scientific computing)
- Visualization (e.g. GIS/geospatial analysis, telemetry analysis)
- Working knowledge of research designs
- Intellectual curiosity; creativity and innovation to go beyond current tools to deliver the best solutions to complex problems.
- Strong analytical and critical thinking skills
- Ability to leverage multiple data management tools to organize relevant information and make decisions
- Ability to develop comprehensive software applications, as needed
- Ability to translate complex, technical findings into an easily understood narrative
- Ability to work collaboratively and effectively in a team environment

Technologies to know:

- Statistical Tools may include: SAS, R, SPSS, Matlab, Mahout/MADlib, Stata
- Programming languages: SQL, C/C++, JAVA, Python, Perl
- Data Management: Hadoop tools, MapReduce, Pig, Hive, NoSql, Tableau, Hbase

Qualifications:

- 2-6 years of experience
- Bachelor's degree in quantitative or technical field of study (e.g., statistics, mathematics, computer science, physical science, quantitative social sciences).

Prior machine learning and AI experience for at least 2+ years is mandatory for this role. Please note that you might be required to code at times as well so coding experience is required too

ADVERTISER: Preacta Recruitment**CATEGORIES:** Technology**TAGS:** statistics, mathematics, data analysis, data analytics, optimisation, data science, programming, coding, software engineering, machine learning**LOCATION:** Sydney **TYPE:** Full Time

Data Science/Software Engineer – Machine Learning

- Be part of an A-team Software Engineering team
- Machine Learning (Python)
- Awesome salary + bonuses + profit share

The Role:

My client is seeking a software engineer to lead the development of a number of optimisation related projects as the role involves the implementation of algorithms and systems to collect data and optimise customer engagement and targeting of experiences delivered by my clients network.

Technical Requirements:

- 4 years + of Software Engineering experience
- The ideal candidate will be from a Development background preferably Python
- A MSC or ph. D in Computer Science or Stats or Data Science
- Python (Scikit learn, SciPy, NumPy, Pandas, Matplotlib, IPython) OR R
- Familiarity with AWS Redshift
- Experience with visualisation tools such as Tableau

Benefits on offer:

- Competitive salary and learning budget
- Onsite parking and bus station close-by
- Work from home days and remotely when you want!
- Open Agile working space
- Snooker table, table tennis and Xbox for letting off some steam
- Onsite modern kitchen and free coffee, fruit and veg

This is a brilliant chance for a Software Engineer to join a cutting-edge company with a massive presence in the Australian economy. The company are very family friendly, relaxed and keen that you enjoy a healthy work-life balance.

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**MAKE A REAL
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BE MORE THAN A NUMBER

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COMPUTER SCIENTIST - DATA SCIENTIST
SOFTWARE ENGINEER - GAME DEVELOPER
APP DEVELOPER - PROGRAMMER - DATA ANALYST

ADVERTISER: CSIRO Data61**CATEGORIES:** Technology**TAGS:** algorithms, data analysis, data science, data analytics, statistics, mathematics, machine learning, probability**SALARY:** \$80,000–\$91,000 **LOCATION:** Sydney **TYPE:** Full Time

Postdoctoral Fellowship in Privacy Preserving Technologies

- Are you a highly motivated recent (or near) PhD graduate with expertise designing algorithms?
- Prestigious Postdoctoral Fellowship on offer
- kick-start your research career
- Join CSIRO's Data61 - Australia's largest data innovation group

The Position

Privacy-preserving technologies are now critical as evermore volumes of data are being collected and shared between entities. Releasing and analysing data in a privacy-preserving manner means that any information specific to an individual remains hidden while characteristics common across individuals are learned. A series of results have shown that the pervasive techniques of de-identification (removing obvious identifiers of individuals from data) to sanitise datasets are prone to a host of attacks including inference and re-identification through use of background knowledge. A safer alternative is to use provably privacy-preserving algorithms to release and analyse data.

We are seeking a Postdoctoral fellow to work on different aspects of Privacy Enhancing Technologies (PETs) as applied to problems arising in privacy preservation of real-world datasets. The Postdoctoral fellow will be involved in one or more projects in three focus areas:

- Designing algorithms and protocols that allow private release and/or analysis of data for different application scenarios. These include online access to data through a secure interface, one-off release of synthetic data, real-time release of statistics from continuous streams of data, and data aggregation at the edge in an Internet-of-Things (IoT) setting.
- Application and implementation of private algorithms for release and analysis of real-world industry and government datasets in ongoing and future data privacy projects. This will involve identification and development of suitable algorithms (in terms of computational efficiency and utility) targeted to a particular dataset and statistical insights.
- Examining and introducing variants of provable privacy definitions that improve trade-off between privacy and utility.

The outcome of this research will have both research and practical applications. The successful candidate will closely interact with both researchers and engineers within the Information Security and Privacy Group.

To be successful you will need:

- A doctorate (or will shortly satisfy the requirements of a PhD) in a relevant discipline area, such as Theoretical Computer Science, Algorithms, Mathematics with a computing major, Cryptography and Information Security/Privacy. Please note: To be eligible for this role you must have no more than 3 years of relevant postdoctoral experience.
- Demonstrated knowledge and skills in one or more of the following areas: Design and analysis of algorithms, Differential Privacy framework, Applied Cryptography, Probabilistic and statistical framework, machine learning and Information theory.
- Demonstrated experience in the collection and processing of large data sets, development of efficient algorithms on large datasets, and development of security or privacy-preserving algorithms or protocols for processing and sharing data.
- The ability to work effectively as part of a research team, plus the motivation and discipline to carry out autonomous research.
- A record of science innovation and creativity plus the ability and willingness to incorporate novel ideas and approaches into scientific investigations.
- A record of publication in top peer reviewed journals and conferences (i.e. high impact factor, or selective acceptance rate).

STUDY MATHS

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Swinburne's Bachelor of Science majoring in Applied Mathematics offers an opportunity to gain a broad understanding of the mathematical and numerical methods used to describe phenomena and predict behaviours in the everyday world.

Explore how to make sense of big data and complexity, and learn to model fundamental processes in physical and life sciences, industry, social sciences, consumer behaviour and finance.

Graduates are highly sought after for their excellent analytical ability and broad scientific skills. Career opportunities include data analyst, quantitative analyst, mathematical modeller, scientific programmer, actuary, meteorologist and climate modeller.

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Forecast the weather, or the financial world of stocks and shares

Help a medical team discover a cure, or a business to succeed

Protect our national security or an endangered species

Prevent economic hardship, or loss of life in natural disasters

With our Bachelor of Mathematical Science you can explore a world of opportunities, in a diverse range of careers.

FedUni's applied focus to learning also means you will gain real world experience during your studies, with leading businesses and industry.

*2017 Employer Satisfaction Survey, Australian Federal Government's Quality Indicators for Learning and Teaching (QILT.edu.au)

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TRANSPORT & LOGISTICS

A green light for maths jobs

Whether you are interested in designing and modelling or implementing innovative infrastructure, mathematics has the green light on some the most interesting careers in transport and logistics.

JOB KEYWORDS

AVIATION - DATA ANALYTICS - MODELLING - OPTIMISATION - INFRASTRUCTURE - PLANNING - LOGISTICS
PREDICTIVE ANALYTICS - OPERATIONS RESEARCH - STATISTICS - MATHEMATICS - QUANTITATIVE ANALYSIS
RISK ANALYSIS - PROCESS ENGINEERING - MACHINE LEARNING - TRANSPORT TECHNOLOGIES

MICHELLE DUNBAR

POSTDOCTORAL RESEARCH FELLOW, ACRF IMAGE-X INSTITUTE, THE UNIVERSITY OF SYDNEY

I use mathematical optimisation to improve systems, applying mathematical optimisation techniques to real-world airline networks; to assist in the integration of key operational decisions and in providing robust solutions under operational uncertainty.

As well as transport scheduling, I have applied machine learning techniques to improve disease detection and diagnosis and improve cancer imaging for treatment. With optimisation firmly on the industry radar, I believe impacts of this growing research area are set to expand.

“ In all the sectors I have applied optimisation there appears to be a number of key areas in which it will play a role in the future: managing uncertainty, leveraging additional degrees of freedom for state-of-the-art technology and addressing problems conventional approaches are unable to handle. ”

I anticipate a number of key impacts within the field over the next five years as focus shifts to address risk of human and machine error and embrace online opportunities.

I think we'll see a move to robust optimisation to mitigate against operational and human uncertainty, as well as online optimisation such as on-demand transport services and greater use of prospective solution approaches for patients, e.g. real-time tumour tracking and treatment, and also faster solution times.

Michelle was a participant and speaker at AMSI Optimise in 2017





A world of career opportunities across a vast range of industries begins with mathematics.

Mathematics is critical to a huge range of industries including science, information technology, computing, finance, marketing, business, medicine, energy, government, security and education. Graduates with strong mathematical skills have increased employment opportunities across a diverse range of industry sectors.

As a graduate with specialist skills in mathematics, you'll demonstrate strong quantitative skills, logical thinking, highly-developed numerical confidence, advanced levels of analytical and problem solving skills and could find graduate employment in the following roles:

- data scientist
- decision analyst
- security specialist
- scientific programmer
- teacher
- statistician

Learn from Deakin's expert mathematics staff in a number of areas including statistics, data analysis, data science, logistics, decision support, modelling and cryptography.

deakin.edu.au/study-maths

Deakin University CRICOS Provider Code: 00113B

ADVERTISER: Michael Page Procurement & Supply Chain

CATEGORIES: Transport & Logistics, Business & Marketing

TAGS: business analyst, data analyst, data analytics, logistics, modelling, transport

SALARY: \$70,000–\$150,000 **LOCATION:** Melbourne **TYPE:** Full Time

Michael Page

Procurement &
Supply Chain

SUPPLY CHANGE CONSULTING

- **Leading Global Consultancy**
- **Melbourne or Sydney Based**

As part of our highly successful international partnership, Michael Page are delighted to be working with Crimson & Co, to support their sourcing of high calibre Supply Chain Consultants to help facilitate their ongoing growth within the Australian market.

Client Details

Crimson & Co. is a leading global supply chain consultancy with a growing presence in the Australian market. With a strong focus on the emerging trends in the Supply Chain industry Crimson are experiencing strong growth and looking to build on their existing offering by appointing strong industry leaders across the service streams. Crimson & Co. operate a number of global offices with a constant focus on expanding their available services to clients.

Description

With multiple openings at a range of professional levels available Crimson are currently looking for **analysts** and consultants with skills in the following areas -

- Supply Chain network design and **modelling**
- Transport **modelling**
- Operations improvement and process design
- Demand, supply and sales operational planning
- Manufacturing

Profile

You will be a highly motivated and driven professional with previous experience in a full function credit role. Additionally, you will possess:

- Strong in **analytics** with advanced excel skills. A good grasp of Microsoft access or similar would also be an advantage
- Industry knowledge within supply chain & logistics, preferably with at least 2 years operational experience
- Experience and understanding of the e-commerce and online trading supply chains
- Able to demonstrate an ability to think laterally and drive improvements across the supply chain
- Proven project management skills
- Strong team player with good communication skills

Job Offer

Crimson & Co. offer a unique opportunity to work with a dynamic and growing business that is backed by a global presence. With a strong foothold in the consumer goods and e-commerce space Crimson are well placed to take advantage of Australia's presence within the APAC region.

ADVERTISER: Public Transport Victoria**CATEGORIES:** Transport & Logistics**TAGS:** mathematics, risk management, transport**SALARY:** \$93,868–\$113,573+ **LOCATION:** Melbourne **TYPE:** Full Time

Requirements Assurance Officer

About Public Transport Victoria (PTV)

What is PTV? It is a single point of contact for you to gain information on Public Transport services, fares, tickets and initiatives. We here at PTV manage Victoria's train, tram and bus services. Our team here at PTV develops and nurtures a strong, vibrant culture encouraging innovation to drive a high-performing Government organisation. We build on the hard work, passion and creativity of our people to promote excellence in our industry, and greater mobility for all Victorians. PTV helps hundreds of thousands of Victorians make their way to and from life's events. That may be arriving at work or school, visiting family or friends, attending sporting or entertainment events, whatever it is, WE PLAY A ROLE.

About the role

We are currently looking for a Requirements Assurance Officer to join our technical services team. You will be responsible for analyzing requirements and requirement sets to ensure that syntactic and grammatical rules and characteristics defined in PTV's requirements development processes are complied with (i.e. ACCURATE requirements: Atomic, Correct, Checkable, Unbiased, Realistic, Autonomous, Traceable, Explicit).

- Provide support to Engineers to develop technical standards for each key transport discipline
- Liaise with PTV stakeholders to ensure a unified approach to requirements development throughout the Victorian transport jurisdiction
- Provide support to the Requirements Manager with requirements traceability and requirements change control processes
- Provide ad hoc training in requirements development

What we're looking for

- Experience in the use of a requirements management tool such as IBM DOORS
- Exceptional communication, negotiation and stakeholder management skills, with the ability to maintain effective, robust, and professional relationships which benefit the organisation
- Good understanding of Transport system decomposition or partitioning to aid understanding of **complex systems**

Qualifications

Mandatory

- A tertiary qualification in engineering, science or **mathematics**

Desirable

- Experience in the use of a requirements management tool such as IBM DOORS
- Post graduate qualification in systems engineering, capability definition, engineering, risk management or equivalent suitable discipline
- INCOSE (SESA) Member

ADVERTISER: Rookie Recruits**CATEGORIES:** Transport & Logistics, Business & Marketing**TAGS:** business analyst, data analyst, statistical forecasts, data analytics, logistics, problem solving skills**SALARY:** \$50,000 **LOCATION:** Sydney **TYPE:** Full Time

Graduate Business Analyst

Are you a **creative person**?

Love **brainstorming** and thinking out of the box?

Do you **take responsibility & follow up** on your actions?

Are you a **team player**?

I'm looking for a recent Graduate who is seeking for an opportunity as a Graduate Business **Analyst** who enjoys looking at **numbers**, thinking outside of the box, taking responsibility in their work and likes being **analytical**. The opportunity is for a leading service-based solution provider in the market, partnering up with Australia's largest retailers and biggest brands in the entertainment sector.

For this company, **ATTITUDE is EVERYTHING**.

With in-depth training provided, the Graduate Business Analyst will be responsible for but limited to:

- Demand planning - providing **analytics** with respect to; fulfilment, inventory on hand, benchmarking, forecasting and forecasting accuracy
- Inventory planning - proposing purchase plans, and evaluating business performances, develop learning's, communicate findings and translating **data** into future forecast expectations
- Stakeholder management - maintaining strong relationship with internal staff, clients and suppliers
- Market trends - creating **statistical forecasts** and identifying trends within the market
- Driving the forecast consensus process for categories assigned by engaging the entire team
- Developing inventory reporting across key areas

The Rookie

This is a position that will give you the opportunity to progress in a company, and what we're looking for in YOU:

- Completed a Degree in **Statistics/Mathematics/Logistics** or Business related studies
- Intermediate skills in Microsoft Excel (Vlookup and Pivot Tables)
- Confident, Articulate and Enthusiastic
- Problem solving ability including the capacity to make decisions quickly and effectively
- Fantastic interpersonal and social skills

Benefits

- 12 month coaching session
- Excellent on-going in-house training, with a clear pathway to success within company
- Exposure to a global organisation and a portfolio of well established clients
- Great career progression

GRADUATE PROGRAMS

Kickstart your career!

Offering a supported transition from university into the workplace, graduate programs provide access to mentoring and training while you build sector experience and professional networks. You may even secure a job offer before you finish your degree!

From big business to government, below is just a sample of the opportunities that may be available to mathematics and statistics graduates. Find more online or through your university career centre:

gradaustralia.com.au

gradconnection.com.au

SECTOR	COMPANY/ ORGANISATION
BUSINESS & MARKETING	Accenture, AECOM, Capgemini, Coles, IBM, SMS Management and Technology, Unilever, Woolworths
EDUCATION	Department of Education & Training, Teach for Australia, teachNSW
ENGINEERING & RESOURCES	AEMO, Arup, Aurecon, BHP Billiton, BP, Chevron, Ergon Energy, Hatch, Rio Tinto, Santos, Schneider Electric, Sydney Water, Water Corporation (WA), Wood Group, Woodside, WorleyParsons
FINANCE & MONEY	Allianz, AMP, Australian National Audit Office, ANZ, ASIC, Australian Super, Australian Treasury, Bankwest, Bendigo Bank, CBA, CPA Australia, Deloitte, Ernst and Young, Gallagher Bassett Services, GE, HSBC, IAG, IMC, Jane Street, KPMG, Macquarie, McGrathNicol, Medibank, Pitcher Partners, PWC, QBE, Queensland Treasury, Reserve Bank of Australia, Suncorp Group, Westpac Group
HEALTH & SOCIETY	Australian Bureau of Statistics (ABS), Australian Electoral Commission (AEC), Department of Human Services, Department of Infrastructure and Regional Development, Department of Premier & Cabinet (WA), Queensland Government, Victorian State Government
SCIENCE & ENVIRONMENT	Bureau of Meteorology (BoM), Department of Science & Innovation
SECURITY & DEFENCE	Australian Defence Force/Department of Defence, DST Group
TECHNOLOGY	Microsoft, Telstra
TRANSPORT & LOGISTICS	Aurecon, Aurizon, Qantas



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