Data to Decisions CRC PhD Research Scholarships



"... there is a need for 190,000 more workers with analytics expertise and 1.5 million more data-savvy managers by 2018 in the US alone." McKinsey and Company.

Expressions of Interest for the **Data to Decisions CRC PhD Research Scholarships** are invited from outstanding students to undertake PhD studies with the Data to Decisions CRC (D2D CRC) at one of our partner Universities:

- Deakin University
- University of Adelaide
- UNSW Australia, or
- University of South Australia

D2D CRC PhD Research Scholarships have been established to encourage outstanding PhD students to undertake research programs in the areas of:

- data storage and management
- data analytics and decision support or
- law and policy

The D2D CRC will develop new PhD trained data scientists and socio-legal policy specialists to meet the Big Data challenge for Australian Industry and Government and be industry job ready at their completion.

Why a Big Data PhD?

Data scientists:

- There is a desperate global shortage of data scientists and this is a need that has been reinforced by Australian industry and the national security agencies
- "Data scientist: the sexiest job of the 21st century" Harvard Business Review
- The Institute of Analytics Professionals of Australia (IAPA) revealed that the average salaries paid for data scientists in Australia has surged to almost \$110k a year
- *"The shortage of data scientists is becoming a serious constraint in some sectors."* Harvard Business Review

D2D CRC will produce industry ready PhDs by supplementing their research with industrial collaboration, national security knowledge and coursework to cover other facets of data science.

Law and policy experts:

Big Data compels society to reconsider existing legal and policy principles to ensure a framework that will guide appropriate applications. D2D CRC law and policy researchers will work closely with data scientists, industry partners and the Australian government to study national security requirements and international developments to identify and develop appropriate solutions for Australia.

Research with the D2D CRC

The D2D CRC will undertake research to address the Big Data challenge facing Australia's defence and national security agencies. Postgraduate students will undertake leading-edge research projects in areas such as:

- machine learning techniques for information extraction across large-scale collections of text, imagery and other data sources;
- development of techniques for search and retrieval of data relevant to the mission of intelligence analysts and operators;
- risk profiling and prediction to enable understanding and detection of trends, anomalies and correlations in data and events;



- techniques, frameworks and man-machine visualisation tools that improve the ability of analysts to explore and visualise large, heterogeneous data sets;
- development of techniques that enable the efficient storage, manipulation, and search of massive graph structures containing linked data of relevance to analysts in defence and national security agencies;
- graph database technologies that enable the efficient storage, manipulation, and search of massive graph structures containing linked data; and development of **legal and regulatory frameworks** that address the tension between the protection of civil liberties, such as the right to privacy, and the use of Big Data analytics to advance national security interests.

Scholarship opportunities

The D2D CRC will provide two types of stipend support to domestic and international postgraduate students:

- full scholarships, or
- top-up scholarships for students who have an <u>Australian Postgraduate Award</u> (APA), <u>International</u> <u>Postgraduate Research Scholarships</u> (IPRS) or relevant University equivalent scholarship

Scholarship details include:

- Full scholarship value of \$35,000 per annum*
- Top-up scholarship value of \$15,000 per annum
- Tenable for 3 years, though students may be eligible apply for an additional six months of funding*
- Scholarships consist of a tax free stipend

*Additional conditions may apply.

Scholarship outline

As well as an excellent tax-free scholarship D2D CRC PhD students will receive the following benefits:

- Opportunities to work with world class researchers and leading industry and government partners
- Access to an extensive D2D CRC International exchange program grant
- Attendance at the annual D2D CRC conference and other relevant professional development opportunities
- Access to the proposed D2D CRC Data Analytics certification qualification
- Connecting with postgraduate students from around the world
- Increased career prospects in the sector through a range of networking events with our industry, government and research partners
- Your biography and research outline featured on the D2D CRC website and social media

Eligibility

Domestic and international candidates may apply.

Applicants must fulfil the PhD admission criteria for the relevant University, including English language requirements, and demonstrate excellent capacity and potential for research.



Applicants must be proposing to undertake a full time PhD in one of the D2D CRC's research programs and will have a First Class Honours degree or equivalent and should be eligible for an APA, IPRS or equivalent. Outstanding candidates may be offered a full scholarship at the D2D CRC's discretion.

Preference will be given to students whose proposals align with the research directions of approved D2D CRC projects. Subject to availability of expert supervisors, scholarships are available to students in all relevant disciplines enrolled in PhD studies at a D2D CRC partner University:

Note that scholarships cannot be deferred.

Timelines

- Register your interest by **5pm AEST Thursday 31 July**
- Suitable applicants will be contacted and advised to apply for an APA or equivalent with the relevant University by their required deadlines:
 - o <u>Deakin University</u>
 - o <u>University of Adelaide</u>
 - o UNSW Australia
 - o University of South Australia

Register your interest

Please contact Jacqui Martin, Communications and Education Manager at the Data to Decisions CRC via +61 3 9244 6533 for more information or email your CV, a brief statement of your research interest and contact details to jacqui.martin@deakin.edu.au

Contact details

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