

Deakin School of
Information Technology



DEAKIN
UNIVERSITY

RECRUITMENT

POSTDOCTORAL RESEARCH FELLOW IN DATA SCIENCES

CONTACT

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APPLICATIONS CLOSE ON 04 FEBRUARY 2019

Position description current from October 2018

deakin.edu.au/information-technology

ABOUT DEAKIN

Deakin's growing reputation is reflected in its rapid rise in international rankings; Deakin entered the prestigious Academic Ranking of World Universities for the first time in 2014 and now ranks an estimated 213 (AWRU 2017). Deakin is ranked 29 in the QS ranking of the world's top universities under 50 years. Ninety percent of Deakin's research was rated at or above world standards in the Australian Government's Excellence in Research for Australia (ERA).

Established in 1974, Deakin University was named after the leader of the Australian Federation movement and the nation's second Prime Minister, Alfred Deakin.

Deakin University has five campuses, one in Melbourne's eastern suburbs, two in the port city of Geelong and one in Warrnambool on the south-west coast of Victoria. Deakin's fastest growing campus is in the Cloud where over 14,000 students study predominantly online. All students, regardless of their campus or mode of study, benefit from Deakin's award-winning digital environment.

Deakin is proud of its inclusive and student-focussed culture and its reputation for using innovative digital solutions to provide an engaging and personalised learning experience. Deakin is committed to lifelong learning, providing students with choices about how, when and where learning occurs.

Deakin's four faculties offer courses across the arts, design, science, sport, nutrition, architecture, business, law, medicine, optometry, engineering, nursing, allied health, psychology and teaching.

With 58 000 students Deakin is one of Australia's largest universities and is ranked in the top 2 per cent of the world's universities in the major international rankings (ranked 29 in the QS ranking of the world's universities under 50 years).

As a Victorian university with a global impact, Deakin is translating its research into the commercial outcomes that will drive the innovation Australia's economy needs now and into the future. Research at Deakin focusses on innovation and robust partnerships with industry and business and it is building a

formidable international reputation in areas of emerging national social, economic and political priority in its core areas of health, carbon fibre, energy and cyber security. Deakin has integrated its research growth plan into its overall strategy of service, developing its base in advanced manufacturing, which is vital for the Geelong community and Information technology, which is strong in the surrounds of its Melbourne campus.

OUR STRATEGY

Deakin's vision and mission is articulated in its strategic plan *LIVE the future: 2017-2020*. Through *LIVE the future*, Deakin aspires to be Australia's premier university in driving the digital frontier, enabling globally connected education for the jobs of the future, and research that makes a difference to the communities Deakin serves.

Informed by its Australian and Victorian context and engaged locally in the communities it serves, Deakin advances

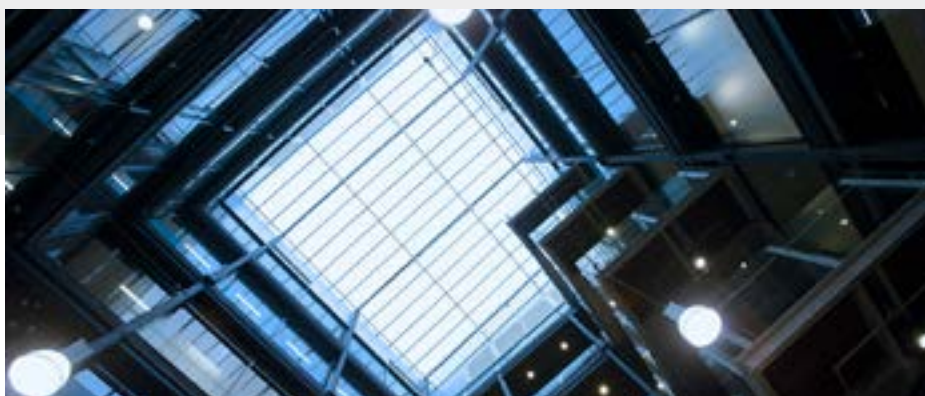
Learning – offering students a brilliant education where they are and where they want to go

Ideas – making a difference through world-class innovation and research

Value – strengthening our communities, enabling our partners and enhancing our enterprise

Experience – delighting our students, our alumni, our staff and our friends.

These four interconnecting elements form the acronym *LIVE*, and together they articulate the Deakin promise to its students, staff, alumni, partners and friends.



FACULTY OF SCIENCE, ENGINEERING AND BUILT ENVIRONMENT

The Faculty of Science, Engineering and Built Environment at Deakin University places great emphasis on excellence in its teaching and learning, research and research training, community engagement, and staff empowerment. We pride ourselves on our national and international activities and the partnerships we have formed with industry, community, government, and the professions.

The Faculty of Science, Engineering and Built Environment consists of four schools, each with a multi-discipline mix of teaching and research offerings and a strong emphasis on research excellence that informs our teaching programs.

SCHOOL OF ARCHITECTURE AND BUILT ENVIRONMENT

- Architecture
- Construction management
- Landscape architecture

SCHOOL OF ENGINEERING

- Civil
- Electrical and electronics
- Electrical and renewable energy
- Engineering Management
- Environmental Engineering
- Mechanical
- Mechatronics
- Mechanical Design

SCHOOL OF INFORMATION TECHNOLOGY

- Computer science
- Creative technologies
- Cyber security
- Data science
- Software engineering
- Virtual reality
- Mathematics

SCHOOL OF LIFE AND ENVIRONMENTAL SCIENCES

- Biological science
- Biomedical science
- Biotechnology
- Fisheries and aquaculture
- Forensic science
- Environmental management and sustainability
- Marine biology
- Science
- Sustainable regional development
- Wildlife and conservation biology
- Zoology and animal science.

The Faculty Executive includes the Executive Dean, the four Heads of School, the four Associate Deans (Teaching and Learning; International and Partnerships; Research; International Research Engagement), the Director of Research Partnerships, and the Faculty General Manager. Collectively, this leadership team establishes and delivers on the Faculty's strategic activities.

OUR MISSION

Our mission is to prepare graduates for the careers of the future by harnessing emerging technologies to facilitate borderless, personalised education, and by conducting research that informs our practice and impacts the communities we serve.

Our undergraduate, postgraduate and doctoral degrees are informed by scholarship and are relevant to both national and global contemporary issues. Flexible learning strategies provide a distinctive student experience. The faculty's teaching aims to be innovative, utilising face-to-face teaching and online technologies to ensure a high level of flexibility for the diverse learning needs of our students.

Our academic staff are engaged in both pure and applied research across their disciplines and are focused on issues which are of relevance to government, business and the community. To this end, we actively seek partnerships with relevant organisations, other like-minded universities and our alumni.

Our students come from diverse backgrounds and we value this diversity. Graduates are confident and competent in the use of online technology and are ready to make a significant contribution to the organisations they serve. They are highly valued by employers for both their knowledge and their graduate attributes.

We are committed to extending the boundaries of science, technology and design, achieving this through close relationships with professional associations, other education providers and universities, business, employers and government across Australia and internationally.



DEAKIN SCHOOL OF INFORMATION TECHNOLOGY

The School of Information Technology delivers courses in information technology, computer science, data analytics, cyber security and software engineering to provide our graduates with a sound platform for the diverse employment opportunities that will exist in the future. The recent Academic Ranking of World Universities placed Deakin in the top 1 percent worldwide for Computer Science.

Learning within the School of Information Technology encompasses a fundamental understanding of computer science that is coupled with extensive experiential development of requisite technical skills in the engineering and administration of complex networks.

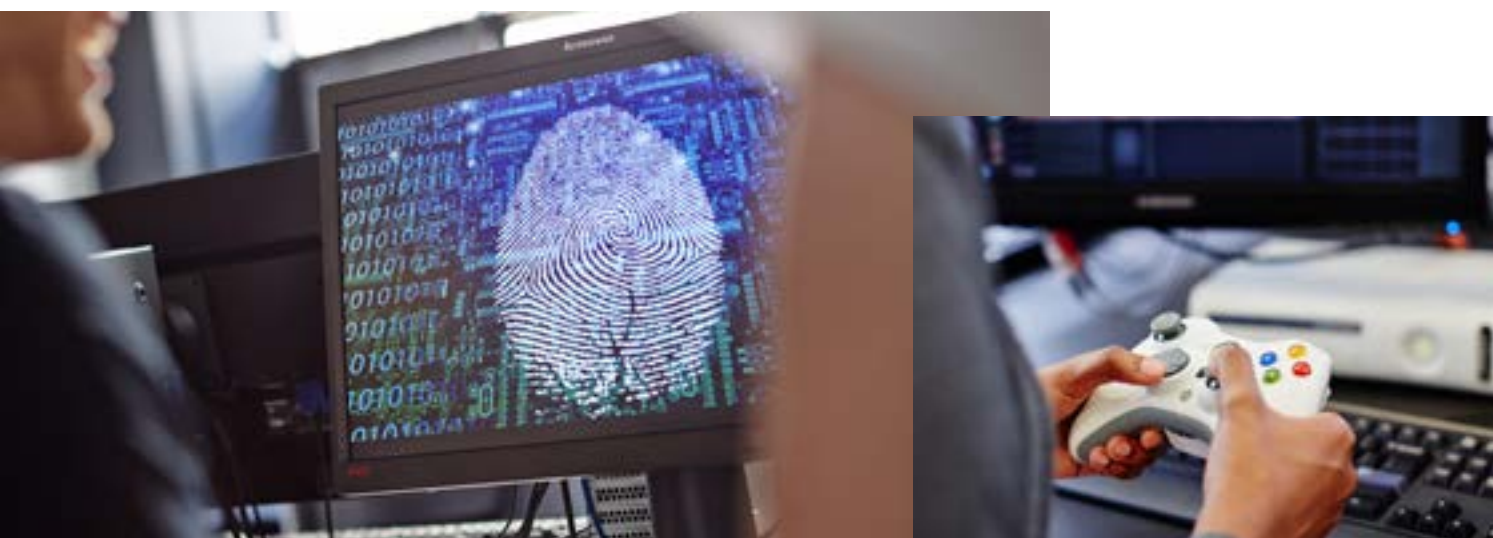
We equip our graduates with the skills to confidently develop next generation IT systems, including cyber-physical and cognitive systems. We offer undergraduate and postgraduate courses in areas including computer science, data science, cyber security, software engineering, virtual and augmented reality, games development, creative technologies, cloud computing, application development, IT services and networking. Our courses are informed through active and ongoing industry connections and provide work integrated, and industry based learning experiences that enable graduates to be work ready and globally capable. Our students have the opportunity to gain experience through involvement with the Deakin Software and Technology Innovation Laboratory (DSTIL) and practical internships in a range of companies, and industry capstone projects.

We recognise the importance of being closely aligned with industry and maintain strong links with leading organisations and government agencies. Industry representation is a key component of our course advisory boards and helps to ensure our curriculum is current and relevant to industry needs, which is integral in a fast-changing sector. Our IT degrees are accredited by the Australian Computer Society (ACS).

Deakin University is home to three of the country's leading IT strategic research centres, the Centre for Pattern Recognition and Data Analytics (PRaDA), Centre for Cyber Research and Innovation (CSRI) and the Institute for Intelligent Systems Research and Innovation (IISRI). The School provides world-class research opportunities through its key research groups in Artificial Intelligence and Data Analytics (AIDA) and Distributed Systems and Internet of Things (DIoT), Software Engineering Research Cluster (SERCh), Human-computer Interaction for Virtual Experiences (HIVE), Information Technology for Future Education (ITFE), as well as industry focused R&D through the Deakin Software Technology Innovation Laboratory (DSTIL).

The School of Information Technology is committed to the generation of fundamental knowledge and high-quality research training for our students. We are passionate about training tomorrow's technology leaders and helping industry advance and maintain their competitive edge benefitting the world we live in.

Our mission is to carry out world-class research that makes a difference to the communities we serve and to equip tomorrow's information technology graduates with the knowledge, skills and practical experience required for successful careers in this rapidly changing field.



APPOINTMENT OF POSTDOCTORAL RESEARCH FELLOW IN DATA SCIENCES

Deakin University (Australia) and Southwest University (Chongqing, China) have established a joint research Centre on Agricultural Big Data. The Postdoctoral Research Fellow will play a key role in the development of Agricultural Big Data research collaborations between Deakin and Southwest University. The Research Fellow is expected to make a substantial contribution to managing the relationship between Deakin University and Southwest University, facilitating this collaborative relationship through coordination of joint research activities in the areas of Agricultural Big Data and higher degree research (HDR) supervision. The intent is to build on the long-term focus of Southwest University in the area of agriculture with Deakin's growing reputation in data analytics and sustainable regional and rural development through the establishment of industry focussed, collaborative innovative

research projects.

The Postdoctoral Research Fellow is expected to contribute to the research effort of the University and facilitate a range of academic exchange between students and staff at Deakin University and Southwest University including joint projects, short to mid term student experiences in China and Australia, joint research and joint conferences. It is important that the Postdoctoral Research Fellow contribute to the profile and research reputation of Deakin University, by means including public lectures, seminars, contributing to public debate and policy formation on key research issues.

RESEARCH ONLY LEVEL B

Level B members of staff typically perform these duties at the following levels:

RESEARCH AND SCHOLARSHIP

- An emerging reputation in research and scholarship, relative to opportunity, through publication or exhibition in quality outlets
- Contributing to their specific areas of research, scholarship or creative activity
- Contributing to research projects and collaborations to create new insights and opportunities
- Contributing to research collaborations and industry partnerships which have demonstrable outcomes
- Contributing to successful development of research programs or partnerships
- Supervising or examining honours students, or making a contribution to the supervision, management and timely completion of HDR students
- Contributing to a culture of research excellence in the University
- Contributing to the successful application of scholarly and research expertise to innovation and invention, with appropriate involvement in the commercialisation of outcomes



ORGANISATIONAL CONTEXT

The Postdoctoral Research Fellow in Data Sciences will report to the Director for Deakin – SWU Research Initiative.

They may also take direction from the Head of School and the Associate Head of School (Industry Research).

ORGANISATIONAL RELATIONSHIPS

The appointee will be actively involved in research and industry related activities. The appointee will contribute to consulting, industry partnerships and professional activities. The appointee will support the School research clusters to develop high quality research grant

applications, especially ARC Linkage applications.

POSITION LOCATION

This position is located at either Geelong Waurin Ponds Campus or Burwood Campus.

DIVERSITY

Deakin University values diversity, enables access and promotes inclusion. Deakin University is an employer of choice for women and strongly encourages applications from Aboriginal and Torres Strait Islander people.

THE SUCCESSFUL CANDIDATE – ESSENTIAL SELECTION CRITERIA

Qualifications

- A relevant doctoral qualification or equivalent.

Experience, Knowledge and Skills

- Demonstrated post-doctoral/professional experience in multidisciplinary research with a focus on data sciences or closely related disciplines (e.g. either data analytics, Internet of things, machine learning, artificial intelligence, or data management); which has resulted in high-quality publications, conference papers, reports, or professional or technical contributions, which give evidence of research ability
- Good communication (written and oral), negotiation and interpersonal skills, across a wide group of collaborators
- Good planning, coordination and organisational skills, in regards to design and delivery of collaborative research projects in and out of his/her main area of expertise, meetings, workshops and conferences
- Willingness and ability to travel to China, sometimes at short notice
- Demonstrated ability to plan, initiate and conduct high-quality research in the data science fields, including an ability to supervise research students
- Demonstrated ability to liaise with collaborators and industry

Other

- Experience in contributing to the supervision of undergraduate honours and/or research higher degree students
- Demonstrated excellent oral, written communication and presentation skills
- Demonstrated organisational skills including the ability to demonstrate scientific rigor and maintain a high standard of laboratory and data record keeping

Personal Qualities

- Interpersonal skills that support the ability to establish and maintain highly effective working relationships with a diverse range of people including students, the staff of the Faculty and School and with other members of the University
- Ability to adapt to changes in the environment and effectively meet new challenges
- Commitment to the University's Mission, Core Commitments and Values which include - excellence, academic freedom, collegiality, continuous improvement, ethical behaviour, accountability and environmental responsibility

SELECTION CRITERIA – DESIRABLE

Experience, Knowledge and Skills

- Demonstrated fluency in both English and Mandarin
- Demonstrated skills in the publication of research journal articles.
- Demonstrated skills in the preparation of research manuscripts
- Demonstrated organisational and project management skills, including the ability to work in diverse and complex environments in a multi-disciplinary team with limited supervision, and ability to handle several different projects concurrently

PERFORMANCE EXPECTATIONS

Annual performance objectives and expected outcomes will be defined for this role in accordance with the Minimum Standards and Typical Duties for Academic Levels (MSTDALs) and Faculty Research Expectation Models (FREMs). Specific duties will be allocated with reference to the applicable Workload Allocation Model (WAM). These documents are updated from time to time and are available on request.

APPOINTMENT PROCESS AND HOW TO APPLY

APPLICATION

Thank you for your interest in the position of Postdoctoral Research Fellow in Data Sciences.

HOW TO APPLY

Please apply online via:

deakin.edu.au/about-deakin/careers-at-deakin

Include cover letter, curriculum vitae and a response to the Selection Criteria.

Please quote reference number:
492350

SUPPORT FOR YOUR APPLICATION

All enquiries will be confidential and should be directed to:

Yong Xiang

Director for Deakin - SWU Research Initiative

Telephone +61 3 9251 7740

Yong.Xiang@deakin.edu.au

CLOSING DATE FOR APPLICATIONS

04 February 2019

INTERVIEW PROCESS

Short-listed candidates will be interviewed by a panel of esteemed colleagues.

Candidates may be requested to present to the School and the wider Faculty.

Details of professional referees will be requested prior to the interview.

REMUNERATION AND BENEFITS

An attractive remuneration package is offered.

This will include:

Level B salary (\$95,488 - \$112,940)

17% Superannuation

Total Rewards at Deakin

TERM OF APPOINTMENT

Full time and fixed term for 3 years

SPECIAL REQUIREMENT

This role has been identified as having contact with children and requires the incumbent to apply for and maintain a Working With Children Check (refer to Deakin's Recruitment Procedure for further details).



Deakin University values diversity, enables access and promotes inclusion. Deakin University is an employer of choice for women and strongly encourages applications from Aboriginal and Torres Strait Islander people.



OUR LOCATIONS

Deakin has four campuses, one in Burwood, two in Geelong (Waterfront and Waurn Ponds) and one in Warrnambool. It also has corporate centres in Melbourne CBD, Burwood and Geelong, a network of technology-rich learning centres across regional Victoria and international offices in India, China and Indonesia.

Melbourne has been named the worlds' most liveable city for the seventh year running*

Further information regarding our locations and relocating to Victoria can be found here:

[Our locations](#)

[Considering Relocation](#)



[Melbourne timelapse](#)

*The Economist's annual study

BURWOOD CAMPUS

Melbourne Burwood Campus is Deakin's thriving metropolitan campus, attracting over 27,000 undergraduate and postgraduate on-campus students. It boasts open and inviting spaces for socialising and studying, innovative architecture, spacious new buildings and wireless hotspots.

