POSITION DESCRIPTION

Position Title: Postdoctoral Research Fellow in Data Science
Organisation Unit: Institute for Social Science Research
Position Number: New
Type of Employment: Full time, fixed term for 2 years
Classification: Research Academic Level A

THE UNIVERSITY OF QUEENSLAND

The University of Queensland (UQ) contributes positively to society by engaging in the creation, preservation, transfer and application of knowledge. UQ helps shape the future by bringing together and developing leaders in their fields to inspire the next generation and to advance ideas that benefit the world. UQ strives for the personal and professional success of its students, staff and alumni. For more than a century, we have educated and worked with outstanding people to deliver knowledge leadership for a better world.

UQ ranks in the world’s top universities, as measured by several key independent ranking, including the CWTS Leiden Ranking (32), the Performance Ranking of Scientific Papers for World Universities (40), the US News Best Global Universities Rankings (42), QS World University Rankings (47), Academic Ranking of World Universities (54), and the Times Higher Education World University Rankings (66). Excluding the award component, UQ is now ranked 45th in the world in the ARWU, and is one of the only two Australian universities to be included in the global top 50.

UQ has an outstanding reputation for the quality of its teachers, its educational programs and employment outcomes for its students. Our students remain at the heart of what we do. The UQ experience – the UQ Advantage – is distinguished by a research enriched curriculum, international collaborations, industry engagement and opportunities that nurture and develop future leaders. UQ has a strong focus on teaching excellence, winning more national teaching excellence awards than any other in the country and attracting the majority of Queensland's highest academic achievers, as well as top interstate and overseas students.

UQ is one of Australia’s Group of Eight, a charter member of edX and a founding member of Universitas 21, an international consortium of leading research-intensive universities.

Our 53,000-plus strong student community includes more than 16,400 postgraduate scholars and more than 17,000 international students from 135 countries, adding to its proud 260,000-plus alumni. The University has more than 6,600 academic and professional staff (full-time equivalent) and a $2.15 billion annual operating budget. Its major campuses are at St Lucia, Gatton and Herston, in addition to teaching and research sites around Queensland and Brisbane city. The University has six Faculties and four University-level Institutes. The Institutes, funded by government and industry grants, philanthropy and commercialisation activities, have built scale and focus in research areas in neuroscience, biomolecular and
biomedical sciences, sustainable minerals, bioengineering and nanotechnology, as well as social science research.

UQ has an outstanding track-record in commercialisation of our innovation with major technologies employed across the globe and integral to gross product sales of $11billion+.

UQ has a rapidly growing record of attracting philanthropic support for its activities and this will be a strategic focus going forward.

Organisational Environment

The Faculty of Humanities and Social Sciences (HASS) is a large, multi-disciplinary Faculty with a broad academic profile, substantial research achievements and a commitment to public engagement. The Faculty is based at the St Lucia campus in the iconic Forgan Smith building, at the heart of the University - The Great Court.

HASS has entered an era of regenerative leadership. Executive Dean Professor Heather Zwicker joined UQ in spring 2018, and brings a fresh vision of interdisciplinary collaboration, public accountability and commitment to the student experience. Many Heads of School are also new to their roles and eager to ensure that HASS continues to be a powerhouse for disciplinary and interdisciplinary research across our Schools, Institutes and Centres, as well as boasting exciting, responsive teaching in a broad range of programs.

The Faculty comprises seven Schools (Communication & Arts; Education; Historical & Philosophical Inquiry; Languages & Cultures; Music; Political Science & International Studies; Social Science), two research Institutes (Institute for Social Science Research; Institute for Advanced Studies in the Humanities), two museums (Anthropology Museum and the RD Milns Antiquities Museum), a Centre for Policy Futures, and several school-based research centres. It also plays host to the Institute for Modern Languages.

HASS has a strong identity and long tradition of innovation and leadership, offering a broad range of programs - including one of UQ's largest, the Bachelor of Arts.

The complementary nature of our disciplines attracts a diverse cohort of international and domestic students, with 640 research higher degree students, approximately 1,600 students in postgraduate coursework degrees and close to 7,000 undergraduates.

The Faculty of Humanities and Social Sciences produces nationally and internationally regarded research across its many and varied disciplines. In addition to strong performance with external funding, UQ researchers in humanities and social sciences have won prizes, gained reputations for research excellence, performed exceptionally in the Excellence for Research in Australia (ERA) exercise, in global university rankings and is ranked 89th in the Times Higher Education subject rankings for Arts and Humanities, among many other measures.

Our strong performance reflects the quality of world-changing work our researchers are undertaking, with their breakthrough discoveries having a positive impact on society and changing the lives of others around the globe. Visit our Research Impact website for some of these stories.

HASS proudly claims a large number of Fellows in national disciplinary bodies, including the prestigious Australian Academy of the Humanities, and the Academy of the Social Sciences in Australia.

More information about the Faculty can be accessed at http://www.hass.uq.edu.au/
The Institute for Social Science Research (ISSR) undertakes solution focused research addressing societal challenges and is a national leader in advanced interdisciplinary social science and evidence-based policy research. ISSR researchers work with diverse academic disciplines and collaborate with government agencies and the private and not-for profit sectors to address key Australian and international public policy questions that span the life course and require investigation of areas such as social inequality, health and wellbeing, education, employment, housing, social services, Aboriginal and Torres Strait Islander environments research and international development. The Institute leads advances in social science and evaluation methodology, and is developing new capabilities in social data science.

A key component of ISSR’s work is commercial research and training, providing high-quality learning and engagement opportunities for postgraduate and postdoctoral students. The Institute employs almost 60 staff, currently enrolls over 40 higher degree students, has an annual budget of $13 million, and engages with affiliated researchers across a diversity of research fields. ISSR is based at UQ’s Long Pocket Precinct (80 Meiers Road, Indooroopilly), a research-oriented campus just ten minutes from UQ’s main teaching and learning campus at St Lucia.

ISSR is the headquarters for the Australian Research Council Centre of Excellence for Children and Families over the Life Course (the Life Course Centre), an international collaboration of 22 organisations working to identify the causes and consequences of deep and persistent disadvantage in Australia. The Life Course Centre aims to identify the drivers of disadvantage in Australia and to develop innovative solutions to mitigate or reverse its impact.

More information about ISSR can be found at www.issr.uq.edu.au.

More information about the Life Course Centre can be found at www.lifecoursecentre.org.au

Information for Prospective Staff

Information about life at UQ including staff benefits, relocation and UQ campuses is available online.

The University of Queensland Enterprise Agreement outlines the position classification standards for Levels A to E.

**DUTY STATEMENT**

**Primary Purpose of Position**

To undertake team-based data science research and consultancy projects. Activities may include the analysis of large administrative data sets using machine learning methods, preparation of reports and academic papers, and under supervision, day-to-day management of research partnerships between ISSR and industry partners.

**Duties**

Duties and responsibilities include, but are not limited to:

**Research and Project Management**

- Contribute to a research program of data science topics related to the priorities of ISSR and the use of transparent, fair, acceptable and ethical machine learning tools.
• Support the development and deployment of machine learning tools and algorithms in partner agencies

• Work collaboratively with ISSR researchers and contracting agencies to ensure that project milestones are completed in a timely fashion and to a high quality

• Provide advice in data construction, methodological approaches and machine learning techniques for ISSR researchers.

• Assist in preparation of research proposals, contract grant applications and tenders with guidance from supervisors and other senior academic staff.

• With guidance from supervisors, prepare and present reports, technical documentation and papers on research outcomes to stakeholders, including presenting research findings at conferences and aiming to publish in high ranking journals.

• Maintain currency in the appropriate field/discipline.

• Over time, develop individual research interests aligned with Group and Institute priorities.

• Participate in general academic activities such as research training workshops, seminars and conferences.

• Comply with all ethics, integrity and data management requirements.

Teaching and Learning
• Contribute to supervision of research assistants, summer and winter scholars and RHD students.

• Assist senior staff in achieving the Institute’s objectives.

• Contribute to the development of new teaching materials for undergraduate, postgraduate and professional development courses, if the opportunity arises and as agreed at the time.

Service and Engagement
• Assist in fostering the Institute’s relations with other organisation units in UQ, industry, government departments, professional bodies and the wider community.

• Assist in developing and managing relationships with government, community and industry research partners as well as philanthropic supporters with guidance from supervisors and other senior ISSR staff.

• Perform a range of administrative functions in ISSR, as required.

• Contribute to the processes that facilitate the work of the Group and the Institute, including participation in Group decision-making and serving on ISSR committees.

• This position may require travel (domestic and international).

• Any other duties as reasonably directed by your supervisor.

Other
• Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including but not exclusive to:
  o the University’s Code of Conduct
requirements of the Queensland occupational health and safety (OH&S) legislation and related OH&S responsibilities and procedures developed by the University or Institute/School

- the adoption of sustainable practices in all work activities and compliance with associated legislation and related University sustainability responsibilities and procedures

- requirements of the Education Services for Overseas Students Act 2000, the National Code 2007 and associated legislation, and related responsibilities and procedures developed by the University

Organisational Relationships

The position reports to the Professor of Social Data Analytics.

**SELECTION CRITERIA**

**Essential**

- Completion of a PhD in Economics, Mathematics, Statistics, Computer Science, Social Sciences, Public Policy or other relevant discipline.

- Recent practical data science and research experience in data related sciences, social sciences, econometrics or another relevant field.

- Recent practical experience with databases, data structures and handling large data sets.

- High level computer programming skills using statistical software such as Stata, SAS or R.

- A demonstrated ability to work in multidisciplinary collaborative research teams sometimes across multiple parties.

- High levels of interpersonal and communication skills, including the ability to work collaboratively with research colleagues from different backgrounds and disciplines, administrative and technical staff and the ability to establish and foster effective relationships and collaborative links with external partners.

- High levels of personal integrity and ability to work independently, manage competing priorities, and work against multiple tight deadlines.

- Ability to build research expertise over time, demonstrated by an emerging profile in research with increasing autonomy.

**Desirable**

- Research leadership and management skills, or demonstrated ability to rapidly develop these skills

- Experience in data archiving and warehousing.

- Developed industry liaisons and professional contacts.

- Experience in liaising and collaborating with external agencies to develop cooperative research initiatives.

- Experience in communicating research findings to a range of audiences, including academics, policy makers, program implementers and other stakeholders

- An established record of publication or exhibition in high-quality outlets and a track record of achievements in the areas of consultancy and applied research.
Qualification Verification

An appointment to this position is subject to the verification of the highest academic qualification from the conferring institution.

The University of Queensland values diversity and inclusion and actively encourages applications from those who bring diversity to the University. Please refer to the University’s Diversity and Inclusion webpage for further information and points of contact if you require additional support.

This role is a full-time position; however flexible working arrangements may be negotiated.

Accessibility requirements and/or adjustments can be directed to recruitment@uq.edu.au.