



## Position Description – Research Fellow

### Position Details

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<b>Position Title:</b>	Research Fellow – Automated Decision-Making Systems
<b>Position Number:</b>	NEW
<b>College/Portfolio:</b>	STEM
<b>School/Group:</b>	School of Computing Technologies
<b>Campus Location:</b>	Based at the Melbourne City campus but may be required to work and/or be based at other campuses of the University.
<b>Classification:</b>	Academic Level B
<b>Employment Type:</b>	Fixed term (Research)
<b>Time Fraction:</b>	1.0

### RMIT University

RMIT is a multi-sector university of technology, design and enterprise. The University's mission is to help shape the world through research, innovation and engagement, and to create transformative experiences for students to prepare them for life and work. For more information on RMIT University follow the links below.

<https://www.rmit.edu.au/about>

<https://www.universitiesaustralia.edu.au/university/rmit-university/>

<https://www.rmit.edu.au/about/facts-figures>

Our three main campuses in Melbourne are located in the heart of the City, Brunswick and Bundoora. Other locations include Point Cook, Hamilton and Bendigo, two campuses in Vietnam (Hanoi and Ho Chi Minh City) and a centre in Barcelona, Spain. RMIT is a truly global university.

<https://www.rmit.edu.au/about/our-locations-and-facilities>

We are also committed to redefining our relationship in working with, and supporting, Indigenous self-determination. Our goal is to achieve lasting transformation by maturing our values, culture, policy and structures in a way that embeds reconciliation in everything we do. We are changing our ways of knowing, working and being to support sustainable reconciliation and activate a relationship between Indigenous and non-Indigenous staff, students and community. Our three campuses in Melbourne (City, Brunswick and Bundoora campuses) are located on the unceded lands of the people of the Woi Wurrung and Boon Wurrung language groups of the eastern Kulin Nation.

### Why work at RMIT University

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Our people make everything at the University possible. We encourage new approaches to work and learning, stimulating change to drive positive impact. Find out more about working at RMIT University, what we stand for and why we are an Employer of Choice.

<https://www.rmit.edu.au/careers>

We want to attract those who will make a difference. View RMIT's impressive standings in university rankings.

<https://www.rmit.edu.au/about/facts-figures/reputation-and-rankings>

## **STEM College**

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The STEM College holds a leading position and expertise in the science, technology, engineering, mathematics, and health (STEM) fields. We are uniquely positioned to influence and partner with industry, as never before.

STEM College is a community of exceptional STEM researchers, teachers, inventors, designers and game-changers, supported by talented professional staff. We offer higher education programs across all STEM disciplines at the Bachelor, Master and PhD levels, and ensure our students experience an education that is work-aligned and life-changing. STEM College employs 1,000 staff who deliver onshore and offshore programs to approximately 20,000 students.

The College is renowned for its exemplary research in many STEM areas including advanced manufacturing and design; computing technologies; health innovation and translational medicine; nano materials and devices; and sustainable systems. Our brilliant researchers attract funding from government and industry sources.

Industry is at the heart of what we do. It ensures our research has real world impact, and our students are truly work-ready. Under the leadership of DVC STEM College, we have established new hubs of industry-connected digital innovation and are engaging with global STEM organisations at scale.

Our diversity and shared values empower our work, and we are proud of the College's inclusive, caring culture. We offer a safe, dynamic work environment, and support every member of our community of achieve their potential. The College appointed Victoria's first ever Dean of STEM, Diversity & Inclusion in 2020, and this role drives gender equity, diversity and inclusion strategies across the College.

We are here to positively impact the world and create the next generation of STEM leaders.

<https://www.rmit.edu.au/about/schools-colleges/stem-college>

## **School of Computing Technologies**

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The School of Computing Technologies is a centre for digital innovation, world class research, and education in STEM via streamlined collaboration across relevant disciplines.

The School is led by the Dean, School of Computing Technologies, and has three disciplines:

- Cyber Security & Software Systems (CSSS)
- Data Science & Artificial Intelligence (DSAI)
- Interaction, Technology & Information (ITI)

Our PhD students and faculty conduct world leading research in many areas of Computing and Computing applications, including in:

- Search and Recommendation
- Human-Computer Interaction
- Artificial Intelligence and Natural Language Processing
- Data Science, Machine Learning, and Big Data Analysis
- Cybersecurity
- Distributed Computing
- Software Engineering
- Digital Health

We have recently redesigned our undergraduate programs to provide a common foundation in programming for all SCT undergraduates. Our approach is centred on an innovative Bootcamp2Studio model that makes use of immersive and challenge-based pedagogy to drive higher-level learning. SCT will further fast-track digital innovation across all College teaching programs and elevate our external position as a leader in technology and digital innovation. The School's leadership is tasked with

the significant responsibility of building the architecture and capability to position RMIT with a supercomputer capacity and a world class digital learning lab which will support interdisciplinary activities, including integration of augmented reality and other advanced technologies into teaching. The strong focus on technology led by the School of Computing Technologies will drive the development of new capability platforms and enable the ability for RMIT to be embedded within industry and leading local and international research organisations

## Position Purpose

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The rapid expansion of automated decision-making enabled by technologies from machine learning to the blockchain has great potential benefits, while it also creates serious new risks to human rights and welfare. Potential harms range from data discrimination against disadvantaged communities to the spread of disinformation for political and commercial ends. Increasing inequality, lower productivity and diminished economic security have been highlighted as risks in the coming decade.

The ARC Centre of Excellence for Automated Decision-Making and Society (ADM+S) is a cross-disciplinary, national research centre, which aims to create the knowledge and strategies necessary for responsible, ethical, and inclusive automated decision-making. Funded by the Australian Research Council from 2020 to 2027, ADM+S is hosted at RMIT in Melbourne, Australia, with nodes in seven other Australian universities. The Centre brings together leading researchers in the humanities, social and technological sciences in an international industry, research and civil society network. Its priority domains for public engagement are news and media, transport, social services and health.

### ADM+S Commitment to Equity, Diversity and Inclusion

Equity, diversity, and inclusion are integral to the ADM+S Centre's mission: to create knowledge and strategies for responsible, ethical, and inclusive automated decision-making (ADM). The Centre recognises that racism, sexism, homophobia, transphobia, and ableism are principal obstacles to equity, diversity and inclusion, and remain primary causes of injustice and inequality. We believe that responsible, ethical, and inclusive ADM can deliver broad social benefits, including reducing inequalities for disadvantaged and vulnerable groups. Women, Aboriginal and Torres Strait Islanders, the LGBTIQ+ community, people living with disability and those from a culturally and linguistically diverse background, are strongly encouraged to apply.

## Position Summary

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The Postdoctoral Research Fellow will contribute to a number of projects within the ARC Centre of Excellence for Automated Decision-Making and Society (ADM+S), with a particular focus on measuring, modelling, and evaluating the fairness, bias, and trustworthiness of algorithms and data, particularly from a Human-Computer Interaction lens. The breadth of possible project topics is extensive, and the following is a non-exhaustive list that a successful applicant could be involved in:

- Simulating user behaviour using Large Language Models
- Evaluating Recommender Systems
- Evaluating Social Computing systems in News and Media domains
- Developing novel hybrid evaluation methods that combine user study data and simulation outcomes
- Explainable AI

The Fellow will be based in the School of Computing Technologies at RMIT University and will collaborate actively with the ARC Centre of Excellence for Automated Decision-Making and Society's national and international network of participants. All Centre postdoctoral research fellows will also have access to the Centre's research training and professional development opportunities, international visiting fellowships and exchanges (travel arrangements permitting), and the Centre's network of industry partners.

## Reporting Line

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Reports to: Jeffrey Chan

Direct reports: Nil

## Organisational Accountabilities

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RMIT University is committed to the health, safety and wellbeing of its staff. RMIT and its staff must comply with a range of statutory requirements, including equal opportunity, occupational health and safety, privacy and trade practice. RMIT also expects staff to comply with its policy and procedures, which relate to statutory requirements and our ways of working.

RMIT is committed to providing a safe environment for children and young people in our community. Read about our commitment and child safe practices. <https://www.rmit.edu.au/about/our-locations-and-facilities/facilities/safety-security/child-safety>.

Appointees are accountable for completing training on these matters and ensuring their knowledge and the knowledge of their staff is up to date.

## Key Accountabilities

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- Conducting high-quality research relevant to the Centre's research programs, both independently and as part of project teams
- Preparing and publishing research outcomes in relevant high-quality refereed journals, reports and books
- Presenting research outcomes at seminars, conferences and industry meetings, and engaging with external stakeholders
- Contributing to public understanding and debate through media, industry and/or policy engagement
- Contributing actively to the ARC Centre's research culture, including participation in research collaboration and community-building within the Centre's research programmes and focus areas
- Conforming to University and ARC Centre requirements with respect to research ethics and integrity and data management
- Compliance with health and safety policies, procedures, hazard reporting and safe work practices

## Key Selection Criteria

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1. Completion of a PhD in Computer Science or a relevant discipline area within the past 5 years at the time of appointment, not including periods of career interruption due to carer's responsibilities, parental leave, illness, or disability.
2. Strong experience in at least one of the following areas: Responsible AI, Human-Computer Interaction, Machine Learning and the intersection of the three areas.
3. Demonstrated experience in developing and/or using state-of-the-art methods, software and tools in a relevant research context.
4. Scholarly writing skills and experience in preparing publications for a variety of audiences, including relevant publications in high quality Q1 peer reviewed journals and track records in A\* conferences as ranked by CORE in Human-Computer Interaction, AI or Machine Learning such as CHI, CSCW, RecSys, ICML, NeurIPS, ICLR, AAI, KDD, WWW, and other relevant A\* conferences.
5. Strong interest in the technical and societal problems related to Fairness, Accountability, Transparency and Ethics (FATE) in AI, particularly in problems related to explainability and fairness. Evidence of publication on FATE-related topic is preferable, but not required.

- 6. Ability to work independently to generate distinctive contributions to scholarly knowledge and/or create real world outcomes.
- 7. Demonstrated ability to work effectively and collaboratively as part of a high-achieving and collegial research culture.

**Optional/preferable:**

- 1. Solid experience in conducting user experiments as required in the relevant expertise and subfield, for example: Solid experience in designing and conducting online or lab user studies, or solid experience in implementing and performing machine learning experiments using multiple large-scale datasets and public benchmarks.
- 2. Well-developed oral and interpersonal skills with a demonstrated ability to communicate effectively with a wide range of stakeholders and research collaborators, including presentations at seminars, conferences, and industry events.
- 3. Emerging track record and recognition for high-quality research engagement, including the development of new research initiatives, competitive research funding, and industry links.

**Qualifications**

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**Mandatory:** PhD or equivalent in relevant field

Appointment to this position is subject to passing a Working with Children check

<b>Endorsed:</b>	Signature:	<b>Approved:</b>	Signature:
	Name:		Name:
	Title:		Title:
	Date:		Date: