Position Description – Research Fellow (AI)

Position Details

Position Title:	Research Fellow (AI)
College/Portfolio:	STEM College
School/Group:	School of Computing Technologies
Campus Location:	Based at the Melbourne CBD campus, however, may be required to work and/or be based at other campuses of the University.
Classification:	Academic Level B, depending on the qualifications and experience
Employment Type:	Fixed Term for 3 years
Time Fraction:	0.7 FTE

RMIT University

RMIT is a multi-sector university of technology, design and enterprise with more than 96,000 students and close to 10,000 staff globally. 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.
https://www.rmit.edu.au/about
https://www.universitiesaustralia.edu.au/university/rmit-university/

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

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

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.

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 & Vice President, Digital Innovation, we have established new hubs of industry-connected digital innovation and endeavour 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.

STEM College employs 1,000 staff who deliver onshore and offshore programs to approximately 20,000 students.

We are here to positively impact the world and create the next generation of STEM leaders.
www.rmit.edu.au/seh

School of Computing Technologies
The School of Computing Technologies (SCT) provides world class computing research and innovative information technology education. We place a significant emphasis on diversity and interdisciplinarity, and aspire to transform the future of technology through integration of varied perspectives and through our distinctive research.

In the 2024 QS University Rankings by discipline, RMIT University was ranked at 170 globally for Computer Science and Information Systems and 57 in Library and Information Management. Education programs in Computer Science, Software Engineering, Data Science, Artificial Intelligence, Cyber Security and Information Technology are offered in the School of Computing Technologies, one of Australia's largest and leading educational facilities in the field.

We are a national leader in industry-connected learning in computing, data science, and IT. 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. We provide students with

practical learning experiences that will prepare them to contribute meaningfully to our world through their work.

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:

- Information Interaction and Information Retrieval
- Human-Computer Interaction
- Artificial Intelligence and Natural Language Processing
- Data Science and Machine Learning
- Recommendation and Big Data Analysis
- Cybersecurity
- Software Engineering
- Digital Health
- Computer Science Education

For more information about our School, it's discipline structure and teaching and research focus areas please visit our website.

Position Summary

The Postdoctoral Research Fellow (PDR) will be employed as part of the newly awarded ARC Linkage grant, titled "*Secure Management of Internet of Things Data for Critical Surveillance*". The PDR will primarily be responsible for designing, implementing, and testing cross-communication layer cybersecurity methods for critical surveillance, as well as mentoring higher-degree research candidates. While a PhD degree is not required, the PDR should have industry experience in building large-scale secure systems and a good understanding of industry needs. Extensive publications are not necessary, but a few in reputable venues are desirable.

Reporting Line

Reports to:

Professor Zahir Tari
School of Computing Technologies
Research Director of the RMIT Centre of Cyber Security Research and Innovation

Organisational Accountabilities

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

- Design, build, implement, and test the next generation of cybersecurity methods for large-scale distributed computing systems (e.g. Edge, IoT) and networks
- Possesses industry experience in building secure systems.

- Conduct high-quality research individually or as part of a team. This includes managing industry research projects within timelines and budget, ensuring compliance with quality and reporting requirements, publishing research results in high-quality outlets, assisting with grant writing, mentoring and/or supervising higher degree research candidates, and actively engaging with clients and external stakeholders.
- Closely working with our industry partner Eratos to deliver the required outcomes.
- Actively contribute to the development of the ARC Linkage project and the industry research team's engagement strategy, ensuring alignment with the strategy of the School, the STEM College, and the University.
- Participate in the College's governance activities as requested and undertake administrative duties, including engagement activities within RMIT.

Key Selection Criteria

Essential criteria

- **Industry Experience**: Demonstrated industry experience in managing, building, and testing large-scale distributed computing systems (e.g. Edge, IoT), evidenced by involvement in several industry projects.
- **Technical Experience**: Exposure to Go, Python, Java or equivalent. Experience with microservices architecture and Kubernetes. Knowledge of AWS, Terraform, and other cloud technologies
- **Work Ethic**: A strong work ethic with the ability to work independently and as part of a broader team, including collaboration with industrial partners.
- **Mentorship Ability**: Demonstrated ability to mentor and/or supervise higher-degree research candidates.
- **Interpersonal and Communication Skills**: Excellent interpersonal and communication skills suitable for interacting with higher-degree research candidates, staff, and industry partners, coupled with a strong commitment to teamwork and multidisciplinary collaboration.

Desirable criteria

- **Research Experience**: Proven research experience in cybersecurity, demonstrated by a few top-tier publications in the field. The candidate should have minimal publications in lower-rate conferences and journals, with preference given to A*-rated venues.
- **Research Track Record**: An emerging track record and recognition for quality research outputs in cybersecurity, including the development of new research initiatives, securing competitive research funding, and establishing industry links.

Qualifications

A PhD degree in Computer Science related field is desirable.

Note: Appointment to this position is subject to passing a Working with Children Check and other checks as required by the specific role. Maintaining a valid Working WithChildren Check is a condition of employment at RMIT.

Endorsed:	Signature: Name: Title: Date:	**Approved:**	Signature: Name: Title: Date: