



POSITION DESCRIPTION

School of Computing and Information Systems
Faculty of Engineering and Information Technology

Senior Lecturer / Associate Professor in Fairness in Machine Learning & AI Planning

POSITION NO	0054173
CLASSIFICATION	Senior Lecturer (Level C) or Associate Professor (Level D)
SALARY	Level C: \$135,032 - \$155,698 p.a. (pro rata for part-time) or Level D: \$162,590 - \$179,123 p.a. (pro rata for part-time) Level of appointment is subject to qualifications and experience
SUPERANNUATION	Employer contribution of 17%
WORKING HOURS	Full Time (1 FTE) <i>Applications for part-time or other flexible working arrangements will be welcomed and will be fully considered subject to meeting the inherent requirements of the position</i>
BASIS OF EMPLOYMENT	Continuing
OTHER BENEFITS	https://about.unimelb.edu.au/careers/staff-benefits
HOW TO APPLY	Online applications are preferred. Go to http://about.unimelb.edu.au/careers , select the relevant option ('Current Opportunities' or 'Jobs available to current staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Professor Adrian Pearce Tel +61 3 83441399 Email adrianrp@unimelb.edu.au <i>Please do not send your application to this contact</i>

For information about working for the University of Melbourne, visit our website:
about.unimelb.edu.au/careers

Acknowledgement of Country

The University of Melbourne acknowledges the Traditional Owners of country throughout Australia. The University recognises the unique place held by Aboriginal and Torres Strait Islander peoples as the original custodians of country and their continued connection to the land, waterways, songlines and culture. The University respects all Aboriginal and Torres Strait Islander People and warmly embrace those students, staff, Elders and collaborators who identify as First Nations.

FEIT's Commitment to Diversity and Inclusion

The Faculty of Engineering and Information Technology (FEIT) is committed to creating a diverse and inclusive environment that welcomes and values all people. We recognise that diversity is essential in contributing to the success of FEIT. 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

The Faculty of Engineering and Information Technology (FEIT) is seeking a dynamic academic with expertise in algorithms and their fairness in machine learning and/or AI (artificial intelligence) planning, or related fields, to join the School of Computing and Information Systems (CIS).

You will have a substantive position in the School of CIS. You will join a world-class computer science research group, which has strong links to the Centre for AI & Digital Ethics (CAIDE), and will be expected to collaborate with both. You will have the opportunity to interact closely with internationally respected groups across artificial intelligence, human-computer interaction, information systems, within the School, and colleagues in the Melbourne Law School, the School of Mathematics and Statistics, the Melbourne School of Psychological Sciences, and the School of Social and Political Sciences.

You will be an aspiring leader in machine learning and/or automated planning research, with ambition to publish in key conferences (typified by, but not limited to, FAccT, The Web Conference, KDD, NeurIPS, ICAPS, AAAI, IJACI, ITCS, EC, CHI, CSCW) and in high-quality journals (typified by, but not limited to, ACM TKDD, AIJ, ACM Transactions on Economics and Computation, Proceedings of the National Academy of Sciences, Big Data and Society, AI and Society, AI and Ethics, TCS), mentor graduate researchers, and secure independent grant funding to support a program of research, in collaboration with colleagues in the School.

You will also contribute to CIS teaching in algorithms, theory, digital ethics, and related areas. You will teach into programs including the Master of Information Technology, the Master of Business Analytics (joint with the Melbourne Business School), the Master of Data Science, and other graduate, undergraduate and professional development programs, and take on administrative roles commensurate with the position.

1. Selection Criteria

1.1 ESSENTIAL

- ▶ A PhD in computer science or another discipline relevant to Algorithmic Fairness in Machine Learning and/or AI Planning;
- ▶ Evidence of leadership of a research team, with demonstrated ability to manage collaborative projects and research activities, involving the management of personnel, timelines and budgets, and relationships with various stakeholders;
- ▶ Evidence of building a national reputation in Machine Learning and/or AI Planning, through a significant track record of publications in high-impact peer-reviewed and refereed venues, and invitations to speak at national and international meetings;
- ▶ Capacity to teach effectively and develop educational programs and methods across a range of subjects, in particular in the field of algorithmic fairness in machine learning and/or AI planning;
- ▶ Excellent oral and written communication skills, including the ability to interact with University staff at all levels and to build networks with industry and other researchers, both local and international;
- ▶ Experience in curriculum development and implementation at undergraduate and postgraduate level that will maintain the School's programmes at the highest international standards;
- ▶ Demonstrated ability to initiate, manage and maintain significant inter-institutional collaborations;

- ▶ Demonstrated leadership and service to national and international professional bodies and to professional journals;
- ▶ Capacity to develop an international funding profile.

1.2 IN ADDITION TO THE ABOVE FOR APPOINTMENT AT LEVEL D:

- ▶ A demonstrated relevant world-class track record of high-quality research and scholarship in computer science or related areas, as evidenced by research publications in high-quality journals, conferences and technical reports as well as other performance indicators, with a focus on algorithms and fairness;
- ▶ A track record of leadership, including the organisation of workshops and conferences, development of enabling resources, and involvement in outreach activities;
- ▶ A track record in attracting research funding from competitive grant agencies and other sources including industry;
- ▶ Ability to develop strong links with the relevant NGOs, industry and government;
- ▶ Drive, energy, and a vision for building and leading a world-class research program;
- ▶ Capacity to provide high-quality research leadership, including leadership of interdisciplinary teams, and effective management of research and other staff;
- ▶ Capacity to teach effectively across a range of subjects, including the capacity to develop and deliver seminars and lectures, and contribute to other teaching activities;
- ▶ Exceptional communication and interpersonal skills with the ability to establish and maintain effective working relationships that inspire students and staff and other members of the School, University and wider community;

2. Key Responsibilities

2.1 RESEARCH AND RESEARCH TRAINING

- ▶ Build a significant degree of scholarly research initiative and collaboration in the discipline of algorithms and fairness;
- ▶ Exercise leadership in scholarly research, in conjunction with other colleagues;
- ▶ Present of research workshops and seminars within the School;
- ▶ Publish papers in reputable international conferences and journals;
- ▶ Perform a significant role in research projects including, where appropriate, leadership of a research team;
- ▶ Attain external research grant income both from national competitive grants as well as from industry engagement;
- ▶ Supervise PhD, research masters, and coursework projects;
- ▶ Build a national and international reputation within the discipline;
- ▶ Liaise effectively with collaborators from a variety of internal and external stakeholders;
- ▶ Present conference papers at reputed refereed international conferences.

2.2 TEACHING AND LEARNING

- ▶ Enhance and develop teaching programs and methods to provide cohesive courses for undergraduate and postgraduate students at the highest international level;
- ▶ Develop and innovate high quality subject materials and subject delivery, including the use of web resources as appropriate, and engage in teaching innovation and continuous improvement of content;
- ▶ Prepare project work to support student learning;
- ▶ Perform marking and assessment duties and be responsible for supervision of project marking in subjects as lecturer-in-charge;
- ▶ Provide adequate access for students, and availability for effective student consultation that fosters their learning;
- ▶ Be proactive in the development of subject materials and delivery, including the use of web resources as appropriate;
- ▶ Act as Subject Coordinator with responsibility for the design, development, coordinated delivery and ongoing improvement of that subject and keep the Teaching Liaison Coordinator informed of changes to personnel and/or requirements;
- ▶ Supervise undergraduate, graduate or postgraduate students engaged in coursework or smaller research projects;
- ▶ Supervise graduate researchers undertaking research projects or degrees;
- ▶ Contribute to the continued improvement of teaching quality through engagement with the School leadership regarding teaching practices and the ongoing review of subject and assessment materials to enhance student learning;
- ▶ Guide the development of Masters coursework, together with contributions to undergraduate and postgraduate teaching.

2.3 LEADERSHIP AND SERVICE

- ▶ Take a leading role in the School to actively foster and participate in industry liaison activities consistent with the School's strategic plan;
- ▶ Participate in School activities such as student events and school visits;
- ▶ Drive and lead School committees and/or projects as required;
- ▶ Contribute to the scholarly practices in the professional community through active involvement which could include liaison with peak professional organisations for the benefit of students and the School;
- ▶ Actively participate in professional activity including consulting, workshops and short courses for external participants and participation in meetings of professional societies;
- ▶ Perform a significant role in knowledge transfer and community engagement activities beyond the university;
- ▶ Actively build and foster partnerships with industry, government, collaborators at other Universities and other stakeholders that contribute to the engagement of teaching and research in the wider community engagement;
- ▶ Work actively with School industry advisory groups and with external industry bodies to ensure a productive relationship between the University and the community;
- ▶ Develop collaborative opportunities with Australian and international industry and research facilities;
- ▶ Undertake professional activities including the conduct and dissemination of research, publication, membership of committees and consultancies;
- ▶ Engage in ongoing professional development in your area and maintain knowledge of current research, resources and practice in that field.

2.4 ADDITIONAL KEY RESPONSIBILITIES FOR APPOINTMENT AT LEVEL D

In addition to the above, for appointment as an Associate Professor (Level D) you are expected to:

- ▶ Build and sustain strong research activities, with a focus on interdisciplinary activities where appropriate.
- ▶ Obtain significant research funding from sources outside the University.
- ▶ Publish in top-tier refereed journals, books or monographs, reports and refereed conference proceedings.
- ▶ Provide University leadership in algorithms and digital ethics-focused education programs.
- ▶ Provide leadership in your discipline.
- ▶ Create a harmonious workplace environment that is conducive to productivity; that promotes creativity; and rewards and recognises individual and group achievement.
- ▶ Encourage and mentor staff and research students to publish in top-tier refereed journals, books or monographs, reports and refereed conference proceedings.
- ▶ Foster excellence in research and teaching and develop best practice standards for the School.

2.5 OTHER

- ▶ This position requires the incumbent to hold a current and valid Working with Children Check.
- ▶ Occasional work out of ordinary hours, travel, etc.
- ▶ Perform other tasks as requested by the supervisor or the Head of the School;
- ▶ Undertake Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in Section 4.

3. *Equal Opportunity, Diversity and Inclusion*

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion, and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set out in the Advancing Melbourne strategy that addresses diversity and inclusion, equal employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people's age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous desire to strive for excellence and reach the targets of Advancing Melbourne.

4. *Occupational Health and Safety (OHS)*

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

<https://safety.unimelb.edu.au/people/community/responsibilities-of-personnel>

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

5. Other Information

5.1 THE SCHOOL OF COMPUTING & INFORMATION SYSTEMS

The School of Computing & Information Systems (CIS) undertakes research and teaching across a range of information technology disciplines including Software Engineering, Information Systems, and Computer Science. It offers a comprehensive range of IT courses at all levels, including offerings in science, engineering, and business, and is at the forefront of computing research in Australia and internationally with close links to major computing research initiatives, including Melbourne Bioinformatics and CSIRO's DATA61.

The School's aim is to attract and retain outstanding staff available in order to maintain a leading research and teaching. We have an existing highly successful research team in the area of the appointment, a large number of PhD students, and a substantial cohort of graduate students in our coursework Masters programs.

To find out more about CIS, visit: <http://www.cis.unimelb.edu.au/>

5.2 FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGY

The Faculty of Engineering and Information Technology (FEIT) has been the leading Australian provider of engineering and IT education and research for over 150 years. We are a multidisciplinary School organised into three key areas; Computing and Information Systems (CIS), Chemical and Biomedical Engineering (CBE) and Electrical, Mechanical and Infrastructure Engineering (EMI). FEIT continues to attract top staff and students with a global reputation and has a commitment to knowledge for the betterment of society.

FEIT has never been better positioned as a global leader, anchored in the dynamic Asia Pacific region, creating and curating knowledge to address some of the world's biggest challenges. Through our students and our relationships with communities, we can not only respond to society's needs but anticipate and create engineering and IT solutions for the future.

<https://eng.unimelb.edu.au/>

<https://eng.unimelb.edu.au/about/join-feit>

Our ten-year strategy, FEIT 2025, is our School's commitment to bring to life the University-wide strategy Advancing Melbourne and reinforce the University of Melbourne's position as one of the best in the world.

To achieve our ambitions, we will continue to build new infrastructure to enable our teaching, research and engagement; we continue to recruit outstanding people from around the world; and we continue to attract high-quality students from across the globe who are at the heart of our enterprise.

<https://eng.unimelb.edu.au/about/feit-2025>

5.3 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville is recognised as the hub of Australia's premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at <http://about.unimelb.edu.au/careers>

5.4 ADVANCING MELBOURNE

The University's strategic direction is grounded in its purpose. While its expression may change, our purpose is enduring: to benefit society through the transformative impact of education and research. Together, the vision and purpose inform the focus and scale of our aspirations for the coming decade.

Advancing Melbourne reflects the University's commitment to its people, its place, and its partners. Our aspiration for 2030 is to be known as a world-leading and globally connected Australian university, with our students at the heart of everything we do.

- ▶ We will offer students a distinctive and outstanding education and experience, preparing them for success as leaders, change agents and global citizens.
- ▶ We will be recognised locally and globally for our leadership on matters of national and global importance, through outstanding research and scholarship and a commitment to collaboration.
- ▶ We will be empowered by our sense of place and connections with communities. We will take opportunities to advance both the University and the City of Melbourne in close collaboration and synergy.
- ▶ We will deliver this through building a brilliant, diverse and vibrant University community, with strong connections to those we serve.

The means for achieving these goals include the development of the University of Melbourne's academic and professional staff and the capabilities needed to support a modern, world-class university. Those means require a commitment to ongoing financial sustainability and an ambitious infrastructure program which will reshape the campus and our contribution to the communities we engage with. This strategy, and the priorities proposed, is centred around five intersecting themes; place, community, education, discovery and global.

5.5 GOVERNANCE

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at <https://about.unimelb.edu.au/strategy/governance>