

# Australian Institute for Machine Learning



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## Community address

Dear friends of AIML,

I am pleased to welcome you to the Spring newsletter.

My name is Nandhini and I am a Machine Learning Engineer and part of the Industrial Solutions team at AIML.

My team and I are like *The Avengers*, each with our own unique superpower, making the world of AI a little better every day. When our captain [Stefan] calls out, "Avengers... Assemble!", we suit up and get ready for the fight. With us in charge, no Thanos from any universe stands a chance.



I work at a uniquely important intersection between academic research and real-world industrial applications at AIML. My role involves transforming cutting-edge AI research into deployable, production-grade solutions for industry partners. My areas of interest include computer vision and generative AI, and I am particularly passionate about bridging the gap between research prototypes and scalable AI systems, from model training and evaluation to cloud deployment and machine learning operations (MLOps) integration.

Recently, I was honoured as a finalist for the Women of Colour in STEM Awards under the Data Science/AI Pioneer category, an achievement that reflects the incredible guidance and support I've received here at AIML.

You can find me on the Lower Ground level at the AIML building on Lot Fourteen. I'm always open to collaboration, so please don't hesitate to stop by for a chat over a hot cup of coffee.

**Nandhini Subramanian**

Machine Learning Engineer, AIML



## Registrations close on 21 November 2025!

Join us for the Next Generation Responsible AI Symposium, held across venues at Lot Fourteen, Adelaide, on **1-2 December 2025**. This two-day event will feature insightful discussions, hands-on workshops, and networking opportunities with Australia's brightest minds in responsible AI.

Hosted by CSIRO and AIML, the symposium is designed to shape the future of responsible AI in Australia. While the program is tailored to early and mid-career researchers (EMCRs), anyone with an interest in responsible AI is welcome to register.

As a bonus, DICTA2025 or Next Generation Responsible AI Symposium ticket holders are invited to join a [free networking session on 2 December](#).

**Register while tickets last!**





**DICTA2025**

December 3–5, 2025  
Adelaide Convention Centre

26th International Conference  
on Digital Image Computing:  
Techniques and Applications

Register for the 26th International Conference on Digital Image Computing: Techniques and Applications (DICTA2025) which will be held at the Adelaide Convention Centre from **3–5 December 2025**. DICTA2025 is proudly sponsored by AIML, the University of Adelaide, the Institute of Electrical and Electronics Engineers (IEEE), and the Australian Pattern Recognition Society (APRS). AIML Director Professor Simon Lucey is one of this year's conference co-chairs.

As Australia's premier conference in the field of digital image processing, DICTA2025 will bring together leading researchers and industry professionals to exchange ideas, foster collaboration, and showcase cutting-edge research and applications. The program will include keynotes from distinguished leaders in digital image processing, including:

- Georgia Institute of Technology Associate Professor James Hays
- National University of Singapore Associate Professor Angela Yao
- Carnegie Mellon University Professor Alex John London
- AIML's Chief Scientist Professor Anton van den Hengel

**Registrations are limited and filling quickly, so secure your spot today!**

**Register while tickets last!**

## Changes to the AIML website

As part of the merger between the University of Adelaide (UofA) and the University of South Australia (UniSA), culminating in Adelaide University (AU) in 2026, AIML's UofA website ([adelaide.edu.au/aiml](https://adelaide.edu.au/aiml)) will become unavailable from **19 December 2025**.

AIML's new website will launch on **5 January 2026** to coincide with the start of AU operations.

Please note that, as AU's web presence is still being developed, AIML's Day 1 website launching in January 2026 may not include all of the content that is currently on the AIML UofA website, including news articles, events data, scholarships, researcher and staff profiles, and other information. Both new and legacy content will be gradually introduced



throughout 2026. If you need access to any legacy AIML web material, please contact us with your specific request at [aiml@adelaide.edu.au](mailto:aiml@adelaide.edu.au).

AIML's external channels, including [LinkedIn](#), [Bluesky](#), and [Medium](#), will be operating using the same accounts under new AU branding. Follow us on these channels to receive the latest news and updates from AIML.



Thank you for your cooperation and understanding.

**AIML Communications**

## AIML hosts major announcement as Qantas unveils new Product Innovation Centre for Adelaide

[Read more](#)

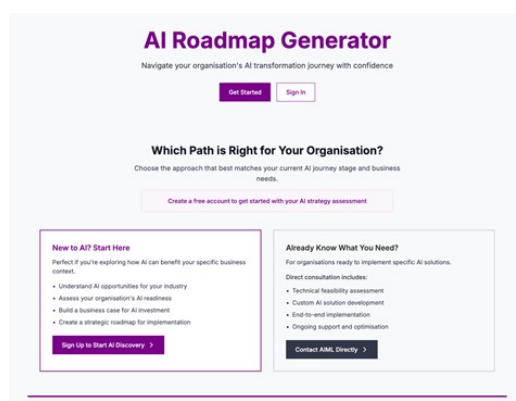


On 13 November, AIML was home to the announcement from South Australian Premier, the Hon Peter Malinauskas MP, and Qantas Group Chief Executive Officer Vanessa Hudson that Qantas will establish a dedicated Product Innovation Centre in Adelaide's CBD – the first of its kind outside of Sydney. The centre will launch next year and is expected to create more than 420 technology jobs by the end of 2028.

"This historic agreement with Qantas will help supercharge growth in new highly skilled, high-tech jobs," said Premier Malinauskas during the announcement. "Through strategic partnerships under this agreement, including the collaboration between Adelaide University and AIML, we are building a strong pipeline of talent with advanced AI and digital skillsets."

## AIML-developed AI Roadmap Generator makes it easier for companies to embark on their AI journey

[Read more](#)



Developed by AIML Machine Learning Engineer Richard Pinter and Engineering Manager Jonathon Read, the AI Roadmap Generator was created by the AIML engineering team through our State Government-funded Industrial AI program. This new product is designed to assist and support businesses across Australia with incorporating AI into their operations.

The AI Roadmap Generator was also featured on [Channel 10 News](#).

## **“We are many orders of magnitude short on our investment in sovereign AI;” AIML Chief Scientist joins esteemed colleagues for 2025 Julia Gillard Public Lecture**

[Read more](#)



On Thursday, October 23, University of Adelaide academics, staff, and students gathered in Bonython Hall for the annual Julia Gillard Public Lecture. Named after The Hon. Julia Gillard, a University of Adelaide Visiting Honorary Professor and Australia’s 27th and only woman prime minister, the lecture series has become an opportunity to explore many of Australia’s most pressing concerns. AIML Chief Scientist Professor Anton van den Hengel participated as a panellist at the event.

During his talk, Professor van den Hengel reiterated his long-standing advocacy for building sovereign AI capability in Australia.

“We are many orders of magnitude short on our investment in sovereign AI,” he said. “Sovereign AI means developing the AI capability we need as a nation to be able to determine our own destiny.”

## **South Australian educators gather at AIML for the Responsible AI Summit for Future**



## Education

On 6 November, AIML welcomed educators, researchers, and members of the public to the Responsible AI Summit for Future Education, an initiative of the Responsible AI Research (RAIR) Centre and the University of Adelaide's School of Education. The summit explored how AI is transforming teaching and learning, offering practical insights for teachers and education professionals seeking to integrate AI responsibly into classrooms and curricula. We extend our sincere thanks to all facilitators, including RAIR Interim Director Professor Javen Shi and RAIR Outreach and Education Liaison Dr Jinan Zou, and attendees for their contributions to these important discussions about responsible AI.

## Tokgan team awarded CSIRO ON Prime Program Facilitator Prize



Congratulations to the Tokgan team, comprised of AIML Machine Learning Engineer Sam Hodge and PhD student Cameron Gordon, who won a Facilitator Prize at the CSIRO ON Prime Showcase on 23 October. ON Prime is a free initiative that helps research teams translate their work into real-world impact through customer discovery. The Tokgan team's project focused on advancing machine learning for rotoscoping in the visual effects industry.

We'd like to also congratulate AIML members Frances Fengyi Yang and Dr Shan Zhang whose team presented DiagramMind.AI which seeks to reimagine how intelligent AI models perceive, reason, and act in a visually grounded world; and Dr Xinyu Li, Haowei Xin and Dr Jinan Zou, who presented MatAid, which uses cutting-edge AI to accelerate the discovery of advanced materials for renewable energy applications.

## AIML celebrates academic promotions and ARC Discovery Project successes

[Read more](#)



Congratulations to AIML academics Dr Feras Dayoub, Dr Lauren Oakden-Rayner, and Dr

Melissa McCradden on their recent academic promotions to Associate Professor. AIML also congratulates Professor Simon Lucey, Dr Ravi Garg, Associate Professor Qi Wu, and Dr Xinyu Zhang on securing new funding through the Australian Research Council's Discovery Program for 2026.

## AIML and CCCure use machine learning to improve outcomes for those with IBD

[Learn more](#)



How can machine learning improve care for people living with inflammatory bowel disease (IBD)? AIML Professor Lyle Palmer and Research Assistant Victor Caquilpan Parra have partnered with New South Wales-based charity Crohn's Colitis Cure (CCCure) to apply machine learning to develop a tool for clinicians designed to advance IBD research. The tools also aims to provide high quality, effective, and consistent care for patients battling one of the fastest-growing chronic health challenges in Australia.

## Dr Melissa McCradden and Dr Emily Kirkpatrick discuss the role of AI scribes in supporting SA's health systems

[Tune in](#)



South Australia is trialing AI scribes to help reduce the strain on health workers by automating case notes, transcribing consultations, and summarising medical information. Trials are already underway at Sefton Park Urgent Care Clinic and Queen Elizabeth Hospital, with another to begin soon at the Women's and Children's Health Network.



In an interview with Channel 7 News that aired on 9 September 2025, AIML Deputy Director Dr Melissa McCradden and Senior Clinical Lecturer Dr Emily Kirkpatrick share their thoughts on the value and impact AI scribes could have on patient care, including reducing the number of administrative tasks doctors are required to undertake daily.

## AIML's Chief Scientist responds to AI adoption advice for the Victorian public service

[Read article \(subscription required\)](#)



Should governments adopt an “AI-first” approach? A 1 September article in *The Australian Financial Review* (AFR) reported on calls from the Australian Information Industry Association (AIIA) for the Victorian public service to make AI its default tool, in a bid to boost productivity and reduce costs. In the article, AIML Chief Scientist Professor Anton van den Hengel states that now is the right moment for governments to move on adopting AI, given the relatively limited adoption of AI worldwide.

## Dr Wei Zhang wins Data Science/AI Pioneer Award at WOC in STEM 2025



AIML extends its warmest congratulations to Dr Wei Zhang for winning the Data Science/AI Pioneer Award on 6 October in Melbourne at the 2025 Women of Colour in STEM Awards, organised by STEM Sisters.

The Women of Colour in STEM Awards are dedicated to recognising and honouring the remarkable achievements of women of colour who are pioneering innovation and driving change in the science, technology, engineering, and mathematics (STEM) fields.





# AIML's 2025 Research Showcase highlights AI's emerging trends and seemingly limitless opportunities

[Read more](#)

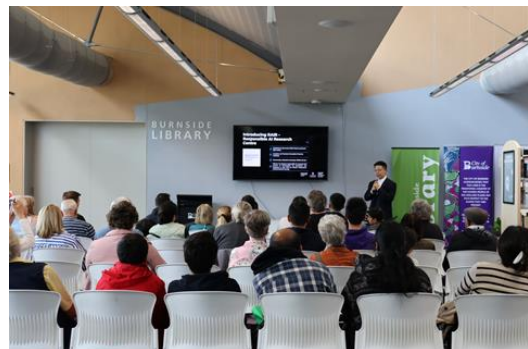


On 24 September, AI practitioners, researchers, stakeholders, and members of the public attended the Institute's annual research showcase at the AIML building. This year's showcase provided another opportunity for AIML students, researchers, and academics to highlight their latest work in AI, machine learning, deep learning, and other areas.

Awards were also presented; congratulations to AIML PhD student Duc Nguyen for winning the EMCR Oral Presentations Award for best presentation during the Showcase, and to AIML Chief Scientist Professor Anton van den Hengel and AIML Professor Javen Shi who accepted the Special Interest Group on Information Retrieval (SIGIR) Test of Time Award for their 2015 publication, 'Image-Based Recommendations on Styles and Substitutes'. The Test of Time Award recognises papers or research that have had a lasting impact on their field years after their original publication.

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## Dr Jinan Zou speaks on the importance of responsible AI at community workshop



On 29 September, Dr Jinan Zou, AIML Postdoctoral Researcher and Education and Outreach Liaison for the RAIR Centre, led an AI workshop at Burnside Library in Adelaide for an audience spanning children to senior citizens. He introduced core AI concepts, discussed their real-world applications, and emphasised the importance of teaching responsible AI use.

The presentation included a live demonstration of how AI systems can be trained to perform complex tasks. Dr Zou was joined by his robot dog Oscar, who quickly became a crowd favourite, and shared two AI-generated songs written specifically about the Burnside community.

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## AIML hosts CSIRO's Young Future Shapers



## Program



On 1 October, AIML hosted approximately 16 students as part of CSIRO's Young Future Shapers program. During their visit, the students engaged with CSIRO and AIML staff, including members of the RAIR Centre.

Young Future Shapers supports students in Years 5 to 10 who may have limited access to learning opportunities and resources. The program aims to build students' confidence, capability, and connection with STEM and prioritises Aboriginal and Torres Strait Islander students, girls, students from lower opportunity backgrounds, and those from regional areas.

## Dr Yuan Zhang shares what inspires her mission to improve endometriosis diagnosis

[Watch on Instagram](#)



AIML and Robinson Research Institute postdoctoral researcher, Dr Yuan Zhang, shares how she's using AI methodologies and clinical insights in her research to combat endometriosis in this latest version of the University of Adelaide's 'What's Your Why?' series on Instagram.

## The cost of not publishing AI research

[Read more](#)



AIML Chief Scientist Professor Anton van den Hengel argues that for Australia to compete in the global AI race, industry must start publishing in top AI conferences. In this engaging *InnovationAus* opinion piece, Professor van den Hengel warns that companies that do not publish risk losing access to the world's top talent who rely on research outputs

to advance their careers. He urges Australian businesses to embrace research as a strategic move to attract talent, build global competitiveness, and shape the nation's AI innovation.

Our people

Opportunities

Past events

## AI on the Ground seminar series

Hosted by AIML Deputy Director Dr Melissa McCradden, AI on the Ground is an interdisciplinary seminar series focusing on the real-world issues of implementing AI- and ML-based tools in medical settings.

### Case study of a sepsis silent trial in Queensland

On 26 September, we virtually welcomed Dr Anton Van Der Vegt, Advanced QLD Industry Research Fellow at the University of Queensland, who presented insights from a sepsis "silent trial" in Queensland. Silent trials are a novel approach to health program evaluation which use real-world data and decision support tools without active clinical intervention.



### AI for paediatric fracture detection on imaging

On 20 October, AI on the Ground welcomed Dr Susan Shelmerdine, Associate Professor of Radiology at University College London (UCL) and Consultant Paediatric Radiologist at the Great Ormond Street Hospital (GOSH) in the United Kingdom. She spoke about the development and evaluation of AI for detecting fractures in children on X-rays—one of the most common but misdiagnosed emergency care conditions.



#### Interested in this series?

[Follow us on LinkedIn](#) to be informed of our next AI on the Ground seminar to be held in-



person at AIML and online via Zoom.

## Responsible AI Research (RAIR) Centre PhD Scholarship

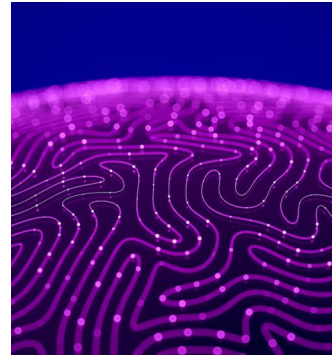
The RAIR Centre PhD Scholarship allows recipients to conduct research that will shape how AI impacts society. This is a chance to join an elite group of researchers who will tackle the most pressing questions in machine learning while ensuring AI serves humanity responsibly. The scholarship is valued at \$36,600 per annum.

AIML is seeking applicants with undergraduate or postgraduate qualifications in mathematics to undertake PhD studies in the RAIR Centre's Theme 1: Tackling misinformation.

**Applications close December 2025 or when filled.**

[Apply now](#)

Responsible  
**AI** Research  
Centre



## CommBank Centre for Foundational AI Research PhD Scholarship

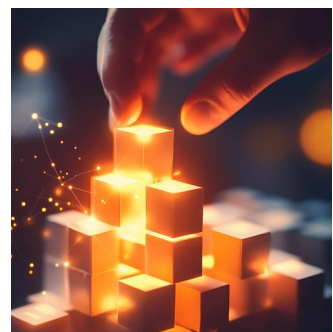
This opportunity will support a PhD candidate to develop a research project aligned with the Centre's core themes of building trustworthy and bias-aware AI systems, advance responsible reasoning and forecasting in deep learning, or developing scalable, resource-efficient models for large-scale AI applications. The scholarship is valued at \$40,000 AUD per annum.

**Applications open until filled.**

[Apply now](#)



Commonwealth Bank



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**To learn more about our scholarships, visit our website.**

[View all available scholarships](#)

# Master of Mathematical Sciences in Artificial Intelligence



Applications are open to enrol in Adelaide University's Master of Mathematical Sciences specialising in AI, commencing February 2026. The degree was developed with the support and participation of several AIML researchers and academics.

Through this degree, students will explore complex topics such as optimisation, stochastic processes and the mathematics powering machine learning and AI. Through hands-on projects and guidance from leading researchers, students will develop advanced problem-solving skills and expertise in emerging AI technologies, opening doors to careers in data science, robotics, finance and technology development.

**Application closure dates may differ between international and domestic applicants. [Learn more here.](#)**

**Apply now**

## 2026 Robotics for Good Youth Challenge Australia

Do you know a young person who is passionate about robotics? Or are you a young person with a keen interest in creating robotic technologies to address global challenges?

If you've answered yes, then please apply for the 2026 Robotics for Good Youth Challenge Australia, proudly sponsored by AIML, Leading Coding, and the Australian AI Olympiad.

The Robotics for Good Youth Challenge is the leading United Nations-based global robotics championship, inviting students aged 10 to 18 to develop AI and robotics-based solutions to tackle global challenges. Organised by the International Telecommunication Union (ITU),



participants design, build, and program robots to complete missions that address real-world issues.

**Applications close 25 November 2025.**

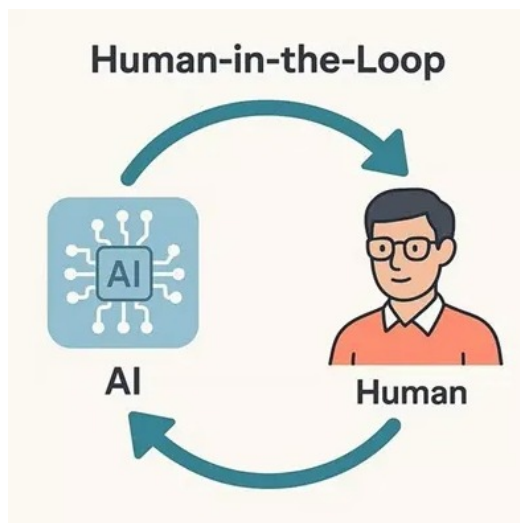
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## AIML blog recap



### Why Australia must bet on human-in-the-loop AI

[Read article](#)

In his first Medium article, AIML Director Professor Simon Lucey reflects on why Australia must pursue a future built on human-in-the-loop AI rather than chasing full technological autonomy. Drawing on lessons from his experience in industry, he highlights how over-reliance on fully automated systems can create instability, brittleness, and missed opportunities for innovation.

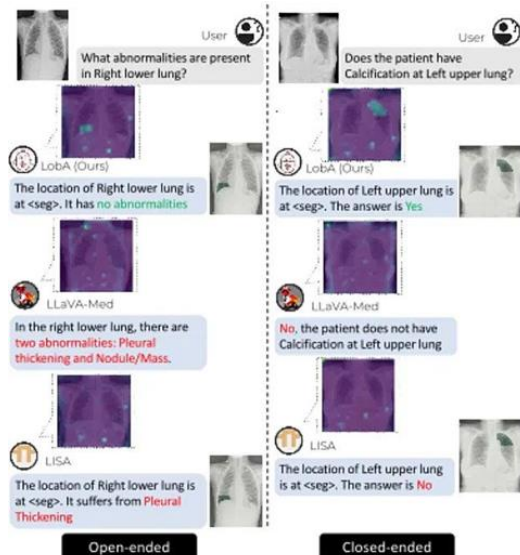


### Navigating innovation: lessons from my journey

[Read article](#)

In her first Medium article, Dr Nisha Schwarz shares how her role as Program Manager for the Centre for Augmented Reasoning (CAR) has evolved into something far beyond providing logistical support. She reflects on translating cutting-edge AI research into real-world solutions through initiatives like the AIML Shop and the CAR Catalyst program and what it really takes to drive innovation at the intersection of academia and industry.





## Do LLMs Really See? Rethinking Multimodal Models for Medical Imaging

Read article

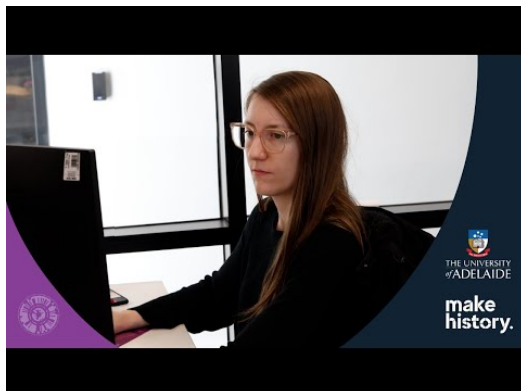
Do large language models (LLMs) really understand the images they are analysing or are they just relying on linguistic shortcuts? In this insightful AIML Medium piece, former AIML Research Fellow Dr Vu Minh Hieu Phan answers this question and details the promising work he and his team have done using AI in medical imaging.

### Follow us on Medium

Read more articles from AIML members by following the [AIML Medium page](#).

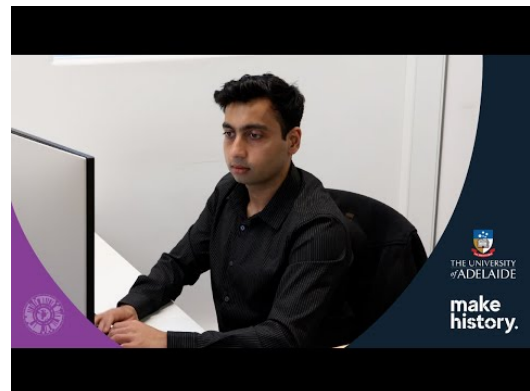


### AIML Channel



#### Protecting cognitive health in later life

Dr Sabrina Sghirripa, postdoctoral researcher at AIML and the South Australian Health and Medical Research Institute (SAHMRI), shares her work exploring how our life experiences shape



#### Teaching AI to forget

Dr Arpit Garg, postdoctoral researcher at the RAIR Centre, explains the concept of *machine unlearning* —which refers to the development of algorithms that enable AI systems to intentionally forget data. His research focuses on ensuring that

how our brains age. Using neuroimaging and electroencephalography (EEG) techniques to study brain structure, function, and rhythms, her goal is to understand what protects some people against dementia while others are at greater risk.

[Watch the interview](#)

sensitive or outdated information can be safely removed without compromising system performance or integrity. Through this work, Dr Garg is helping to build more ethical and trustworthy AI, with privacy and responsibility embedded by design.

[Watch the interview](#)



[Watch the video](#)

## Supporting the Australian grains industry with machine learning

AIML supports the Adelaide University node of the Analytics for the Australian Grains Industry (AAGI-AU) by providing world-class expertise in machine learning and AI modelling. In this video, AAGI-AU Project Lead Associate Professor Julian Taylor, Decision Agriculture Lead Dr Matthew Knowling, Data Scientist Dr John Maclean, and AIML Engineering Manager Jonathon Read discuss how this collaboration is driving research innovations in agriculture. Together, they highlight how data-driven decision making can help growers enhance the productivity, sustainability, and global competitiveness of Australia's grains industry.

## Follow us on YouTube

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