

Title: Australian Institute for Machine Learning

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The Australian Institute for Machine Learning (AIML) is a research institute focused on artificial intelligence (AI), computer vision , deep learning and machine learning . It is based at the Lot Fourteen precinct in Adelaide , South Australia .

AIML is the largest university-based machine learning research group in Australia and is Australia's first institute dedicated to research in machine learning. [1]

History

AIML was established in 2018 as part of the University of Adelaide when it incorporated its Australian Centre for Visual Technologies (ACVT), [2] led by Anton van den Hengel as the founding director. [3] The Government of South Australia allocated A\$ 7.1 million to support the institute's launch. [4]

American aerospace and defence corporation Lockheed Martin was AIML's founding partner in 2018. [5] Between then and 2021, AIML worked with 21 companies, improving their AI and machine learning capabilities and developing a number of new AI products. [6] One of these was visual effects and animation business Rising Sun Pictures , with which it developed machine learning tools. [7] [6] Another partner is Acacia Systems, a defence technology company that specialises in data fusions and tactical tools. [8] Microsoft also signed a memorandum of understanding with AIML in 2021 to collaboratively investigate how advanced cloud computing , AI, computer vision and machine learning can be applied in space . [9] [10]

AIML became a tenant at Lot Fourteen in 2020. [11] Simon Lucey was appointed as director in October that year. [12]

In 2021, AIML launched the Centre for Augmented Reasoning (CAR), a four-year A\$ 20 million initiative funded by the federal Department of Education to advance machine learning research, under the leadership of Anton van den Hengel as CAR director. [13] [14] CAR aims to improve AI's ability to process human instructions and interactions through natural conversation [15] and has provided funding and operational support to the Kingston AI Group of Australian AI professors. [16]

In 2023, the Grains Research and Development Corporation (GRDC) awarded AIML A\$1.9 million to develop machine learning capability for the University of Adelaide node of the Analytics for the Australian Grains Industry (AAGI). [17] [18]

In September 2024, the University of Adelaide announced a five-year partnership between AIML and the Commonwealth Bank of Australia (CommBank) to establish the CommBank Centre for Foundational AI Research with A\$ 6 million in funding, aimed at advancing foundational AI research and capability in Australia. [19] [20]

In December 2024, AIML partnered with CSIRO 's Data61 to launch the Responsible AI Research (RAIR) Centre, focusing on ethical AI development and governance. [21] With A\$ 20 million investment from the University of Adelaide, CSIRO and the South Australian Government, the RAIR Centre aims to address key challenges in responsible AI at a national and international scale. [21] Javen (Qinfeng) Shi was appointed as Interim Director of the RAIR Centre in February 2025. [22]

Also in 2024, AIML launched the Industrial AI Program, supported by A\$ 12 million in funding from the Government of South Australia through the Department of State Development 's Research and Innovation Fund. [23] This program seeks to support AI adoption in industrial sectors in South

Australia. [23]

In 2026, AIML is expected to become an entity of Adelaide University following the merger between the University of Adelaide and the University of South Australia . [24]

Research

AIML operates on an open access model, making most of its research publicly available through conferences, journals and open source software. [25] Its researchers apply machine learning across various industries, including but not limited to agriculture , medical imaging , manufacturing , mining and filmmaking . [25] The institute's research spans various machine learning areas, such as robotic vision , trusted autonomous systems, surveillance and tracking, and photogrammetry and 3D modelling . [26]

In 2022, AIML partnered with the Australian Strategic Policy Institute (ASPI) to create "Artificial intelligence: your questions answered", a collection of short papers that offer a primer into the world of AI and the opportunities and risks this technology presents to Australia. [27] The papers were edited by AIML Institute Manager Kathy Nicholson and Adam Slonim. [27]

In 2023, AIML partnered with the Australian Academy of Technological Sciences and Engineering (ATSE) to develop "Responsible AI: Your questions answered", a collection of short papers that aim to offer "an insight into the world of responsible artificial intelligence and the opportunities this presents to Australia." [28]

AIML also explores AI applications in healthcare, focusing on ethical clinical implementation, biomarker discovery and predictive models for disease diagnosis, prognosis and treatment response. [29] In 2025, Project CANAIRI (Collaboration for tRANslational AI tRIals) was established by an international team led by AIML Deputy Director Melissa McCradden to test that AI tools function effectively and equitably in real-world healthcare settings. [30]

In 2023 alone, AIML members authored 278 papers in international journals and conferences. [17]

Education

AIML is part of the University of Adelaide's School of Computer and Mathematical Sciences. [31] [better source needed] Postgraduate students enrolled at the university can pursue research at AIML through programs such as the Master in Data Science , Master of AI & Machine Learning, Master of Philosophy or Doctor of Philosophy (PhD). [32] Undergraduate students engage with AIML academics through courses in computer science and mathematical sciences. [33] As of 2025 [update] , AIML is host to over 70 research students. [32]

Recognition and awards

AIML has ranked third globally for publications in well-known computer vision conferences and has achieved first place in international leaderboards, including Cityscapes, Visual Question Answering (VQA), the Retinal Fundus Glaucoma (REFUGE) challenge and Microsoft's Common Objects in Context (COCO) Captioning Challenge. [34]

In 2024, AIML Deputy Director Melissa McCradden, received a five-year Hospital Research Foundation Fellowship in Paediatric AI Ethics. [35] That same year, the institute was awarded a A\$ 48,500 Theo Murphy Initiative grant from the Australian Academy of Science. [36] The grant is expected to fund efforts to establish a symposium to help support emerging researchers in responsible AI. [37]

In 2025, AIML members along with members of the University of Adelaide's Robinson Research Institute, were awarded A\$ 498,291 in funding from the Australia's Economic Accelerator (AEA) Ignite Grants as part of the IMAGENDO team. [38] The IMAGENDO study is pioneering the use of AI and machine learning to reduce diagnostic delays for endometriosis. [39]

Several AIML members have received awards and scholarships for their contributions across various fields:

See also

University of Adelaide

Lot Fourteen

References

External links

Official website