AIML Grand Discovery Challenge

The Australian Institute for Machine Learning (AIML) invite undergraduate and postgraduate students at the University of Adelaide and the University of South Australia to take part in a machine learning challenge using real world data.

This hands-on competition offers students the chance to gain practical experience in applied AI while tackling meaningful, data-driven problems. Students will work in teams to develop predictive models, collaborating closely with leading researchers and experts in machine learning. The challenge offers a chance to build their portfolio, showcase their skills, and compete for recognition and potential future research opportunities. **Prizes to be announced.**

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Key dates

Competition launch:
Monday, 8 September 2025

Team registration deadline:
Friday, 19 September 2025

Competition closes:
Friday, 28 November 2025

Winners announced:
Monday, 8 December 2025

THE UNIVERSITY *of* ADELAIDE

Australian Institute for Machine Learning

Teams and support

The AIML Grand Discovery Challenge is open to all students enrolled the University of Adelaide and the University of South Australia, including undergraduates, postgraduates by coursework, and higher degree by research (HDR) students. Interdisciplinary participation is welcomed and encouraged. All teams will have access to subject matter experts who can answer questions about your provided dataset on an online forum that's visible to all participants. Machine learning mentorship and feedback will be provided by AIML researchers.

There is a maximum of 3 members per team.

Register your team and teammates via the registration form (TBA).

Submissions and judging

Participants must submit:

A prediction file for the test data.

A brief technical report or Jupyter notebook with source code explaining methodology, preprocessing, and model design.

Predictions can be submitted through the competition platform (details provided after launch). The use of external data or public benchmarks is not permitted. Each team may only make one submission of original work. Competition organisers reserve the right to disqualify teams for any misconduct.

Submissions will be evaluated based on:

Model performance on the private test set (i.e. accuracy, F1-score, RMSE).

Reproducibility of results.

Code clarity and documentation.

Practical relevance to real world applications.

Final rankings will be based on private leaderboard performance. Top teams will be invited to present their work to representatives from AIML and Roseworthy Campus.

Call for datasets

Researchers from the University of Adelaide and the University of South Australia are invited to contribute datasets for the competition. This is a low-cost, accessible opportunity to explore the potential of machine learning using your own data, supported by student teams working under the mentorship of AIML researchers. In line with the research priorities of the future Adelaide University, we are seeking datasets aligned with the following themes:
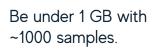
Creative and cultural

Defence and national security

Food, agriculture and wine

Personal and societal health

Sustainable green transition

For more information on the research themes, please visit: adelaideuni.edu.au/research

Data specifications

The data you choose to provide for the competition must:

Be under 1 GB with ~1000 samples.

Not be commercially sensitive.

Problem structure

The data you provide will be used to solve a prediction-based problem. To accomplish this, your data will be:

Split into training and test sets by an AIML researcher.

Annotated with ground truth labels for evaluation.