

EDUCATION

University of Oxford — *DPhil Engineering Science (Robotics)*

OCTOBER 2023 - PRESENT

PhD programme with the Oxford Robotics Institute focussing on multi-agent planning in uncertain environments. Supervisors: Nick Hawes and Bruno Lacerda.

- Designed novel algorithm for solving goal-driven deterministic POMDPs (IJCAI 2025)
- Currently investigating Neural Algorithmic Reasoning in NP-hard problem contexts
- Working on Graph Reinforcement Learning for multi-agent topological planning problems

Key areas: Reinforcement Learning, Graph Neural Networks, POMDPs, Multi-Agent Planning

University of Adelaide — *B.Eng (Hons)(Mechatronics) w B.MaCSci (Pure Maths)*

JANUARY 2016 - DECEMBER 2020

Awarded First Class Honours and achieved a GPA of 6.919/7.

Key subjects: Robotics, Control Systems, Microcontroller Programming, Groups & Rings, Real Analysis

University of Adelaide — *Honours Project*

MARCH 2020 - NOVEMBER 2020

Completed research project titled Modelling Mining Trucks for Hauling Predictions. Trained and evaluated different machine learning models using scikit-learn. Simulated model performance in non-deterministic mine site model. Served as technical lead in a team of four.

Key areas: Machine Learning, Analysis, Project Management

EXPERIENCE

Myriota — *Rapid Prototyping Engineer*

JANUARY 2021 - SEPTEMBER 2023

Development of algorithms and software for the operation of satellite hardware in IoT applications.

- Designed software tools using C/C++ and Python for large scale cloud-based simulations
- Analysed data from simulation to determine optimal satellite network configurations
- Designed solutions to coordinate radio transmissions and receptions on a satellite

PUBLICATIONS

International Joint Conference on Artificial Intelligence (IJCAI) 2025 | arXiv:2505.00596

A Finite-State Controller Based Offline Solver for Deterministic POMDPs

A Schutz, Y You, M Mattamala, I Caliskanelli, B Lacerda, N Hawes

AWARDS

General Sir John Monash Scholar for the year 2023

The General Sir John Monash Foundation awards postgraduate scholarships to Australians who demonstrate outstanding leadership potential and who wish to study overseas.