

Benjamin Lang

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Education

The University of Adelaide

Jan 2025 - Present

MPhil in Applied Mathematics

- *Collecting and analysing real-world network topologies for novel algorithm application.*
- **Scholarships:** AMSI Summer School Travel Grant (2025), Research Training Program Stipend (2025), George Fraser Supplementary Scholarship (2025)
- **Coursework:** GPA: 7.0/7.0; WAM: 97/100

The University of Adelaide

Feb 2018 – Nov 2022

Bachelor of Mechanical and Aerospace Engineering (Honours) with Bachelor of Mathematical Sciences (Applied Mathematics)

- First-Class Honours
- GPA: 6.95/7.00; WAM: 92/100
- **Scholarships:** University of Adelaide Principal's Scholarship (2018), Joseph Miller Travel Scholarship in Engineering (2019, SEM 2)
- **Awards:** Executive Dean's Recognition of Academic Excellence (2018, 2021, 2022)

The University of Toronto

Aug 2019 – Dec 2019

Semester Abroad

- Selected to attend based on merit and written application.

Awards

Rhodes Scholarship Finalist - Rhodes Scholarship Selection Committee for SA

2023

- One of five finalists for the Rhodes Scholarship in SA. Selected based on written application, academic achievements, and demonstrations of leadership and contribution to community.

Valedictorian - School of Electrical and Mechanical Engineering

Class of 2022, SEM 2

The University of Adelaide

- Awarded based on academic merit and contribution to the School of Electrical and Mechanical Engineering.

The R.J. Jennings Memorial Prize for Mechanical Engineering Design

2022

- Awarded for receiving the top final mark for final year group honours project in mechanical engineering.

The Nova Systems Prize for Aerospace Engineering

2022

- Awarded for receiving the highest WAM within Aerospace Engineering major.

Ingenuity: 2nd Place Mechanical Engineering Project

2022

- Awarded for final year honour project, based on scoring by industry and academic judges.

Projects

University of Adelaide - Group Honours Project

2022

Regolith Resistant Lunar Rover Drivetrain

- Investigated and developed a lunar rover drivetrain more resilient to lunar regolith to support NASA's Artemis Program; developed two working prototype subsystems: a magnetic transmission system and electrodynamic dust shield (EDS). Submitted and presented the EDS design at the 19th International Conference on Intelligent Unmanned Systems (ICIUS 2023).

Adelaide Summer Research Scholarship (ASRS)

Dec 2021 - Feb 2022

University of Adelaide - School of Mathematical Sciences

- *(Mis)information theory, influence and emotional contagion on social media.*
- Utilised NLP techniques in Python to investigate Australian media subtitles and develop topic models.

Experience

Graduate Data Scientist

Aurizn

Adelaide, SA

Mar 2024 – Present

- Developing and integrating current methods for multi-modal fusion of different data sources, utilising open-source tools to create a data lakehouse.
- Creating isolated applications for triplet extraction from text using local LLMs and prompt engineering.

Tutoring

The University of Adelaide

Adelaide, SA

Mar 2021 – Present

- Systems Engineering and Industry Practice: tutoring, report and assignment marking (*SEM 1 2021 – SEM 2 2025*)
- Data Skills for Scientists: report marking (*SEM 1 2026*)
- Data Science Research Project Part A: report marking (*SEM 1 2026*)

Graduate Systems Engineer

BAE Systems

Edinburgh, SA

Feb 2023 – Feb 2023

- Assisted with major design reviews and upgrades of Defence projects; completion of configuration management database migrations; developed interactive budgets for Space, Weight, Power, and Cooling management across multiple worksites.

STEM Cadet

Defence Science and Technology Group (DSTG)

Edinburgh, SA

Feb 2022 – Feb 2023

- Undertook a STEM cadetship program as part of the Passive Radar team; developed signal processing algorithms and developed novel methods for target localisation using bi-static radar.

Volunteering

Secretary/Committee Member

Old Concordians Soccer Club

Sep 2018 – Present

- Involved in founding the Old Concordians Soccer Club in 2019. Have played for and helped run the club ever since. Current acting secretary of the club; facilitating meetings and organising club correspondence.
- Tasks include: organising club events; managing training and match-day logistics, including equipment, kits, which must be split between four teams; managing match-day and training coordinators.

Peer Assisted Study Sessions (PASS) Leader

The University of Adelaide

Mar 2019 – Jul 2022

- Selected as PASS Leader for Mathematics IA, Mathematics IB, and Engineering Mechanics – Dynamics.
- Involved hosting weekly sessions containing up to 20 students. Facilitated sessions encouraging students to learn together with fun group activities. Sessions were run to help improve course understanding and improve study methods.
- Witnessed significant improvement in student's study skills and understanding of complex topics.

Publications

Vine Hall, H., Mortier-Spole, O., Nguyen, V., **Lang, B.**, Laden, M., Munn, M., Robertson, W., “Investigating the Use of Electrodynamical Dust Shielding to Improve the Robustness of a Lunar Rover Drivetrain to Regolith”, in *Proceedings of the 19th International Conference on Intelligent Unmanned Systems*, The University of Adelaide, Adelaide, Jul. 2024, pp. 179-189.

[10.1007/978-981-97-6591-1_17](https://doi.org/10.1007/978-981-97-6591-1_17) 

Lang, B., Roughan, M., and Ye, M., “Robustness Analysis of Australia’s Internet Using a Multilayer Network Model”, arXiv preprint, 2026.

[arXiv:2510.13330](https://arxiv.org/abs/2510.13330) 

Biography

In my spare time, I enjoy running, both competitively and casually with friends. I play soccer during the winter season as part of the Old Concordians Soccer Club, which I am heavily involved in. I am also an avid music fan, and play (at varying proficiencies) piano, saxophone, and guitar.