

in linkedin.com/in/liam-blake

github.com/LiamBlake

Highly self-motivated applied mathematics student driven by a desire to make a positive difference to the lives of others whilst also developing a rounded toolkit of analytical skills. Seeking to combine a strong background in mathematical modelling and problem solving with industry experience to push new frontiers in mathematical research.

Education

Bachelor of Mathematical Sciences (Advanced) The University of Adelaide

High February 2018 - July 2021

Major: Applied Mathematics & Statistics

■ **GPA**: 7.0/7.0 **WAM**: 95.08

Master of Philosophy (Applied Mathematics)

The University of Adelaide

Hanuary 2022 - January 2024

 Project Title: Employing stochastic sensitivity to quantify trajectory uncertainty in Lagrangian data assimilation

Industry Experience

Data Science & Software Intern Adelaide MRI

March 2021 - Present

- Develop web applications for medical report writing, collaborating with doctors and other team members to produce efficient solutions and features.
- Design and implement solutions within the Python backend to a range of problems, including: designing RESTful APIs with Flask, queries and database models in SQLAlchemy, and developing, tuning and implementing machine learning models in scikit-learn.
- Adapted to a rapidly changing role as team requirements changed.
- Perform large-scale refactors of the codebase, improving maintainability and test coverage.

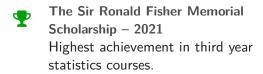
Vacation Research Scholar

Australian Mathematical Sciences Institute / The University of Adelaide

December 2020 – February 2021

- Project Title: Improving Clustering Techniques for Identifying Lagrangian Coherent Structures
- Collaborated with my academic supervisor to create and achieve my own independent research goals.
- \bullet Obtained and manipulated satellite ocean data and applied findings to simulated and real data in $\rm Matlab$.

Academic Awards



The David Murray Prize in Mathematics – 2021
Highest achievement across third year mathematics courses.

The Executive Dean's Recognition of Academic Excellence – 2018, 2019, 2020
High achievement across subjects in the Faculty of Engineering, Computer and Mathematical Sciences.

Bill Henderson Prize – 2018
Highest achievement in first year applied mathematics courses.

Adelaide University Principals'
Scholarship – 2018
Nominated by high school principal for academic achievement and contribution to school community.

Technical Skills

- Python
- Julia
- C/C++
- Matlab
- R, RMarkdown
- LATEX
- Git & version control

- Synthesised multiple academic sources to combine theory and real data to produce and interpret results.
- Presented results to peers and academics nationwide at *AMSIConnect* conference.

Liam Blake

Undergraduate Engineer

Saab Australia

- math December 2019 February 2020
- Designed and developed a graphical concept demonstrator in Python to communicate application of a statistical estimator to a broader audience of Saab employees.
- Collaborated with Modelling & Analysis team and became actively involved in daily stand-ups and weekly team meetings, implementing the Agile framework.
- Created an inclusive and productive environment with other interns, taking advantage of our diverse backgrounds to support each other.
- Delivered a successful and technical presentation to a diverse audience, explaining how project fitted into broader team goals.

Other Experience

Vice President

Adelaide University Mathematics Society

2020 - Present

- Lead and collaborate with a committee of 16 students working to organise club events of social, academic and industry focus.
- Encourage, lead and take part in committee meetings where ideas are discussed and all opinions considered.
- Volunteer enthusiastically to play key roles in the organisation and execution of events, applying practical problem-solving and people management skills.
- Adapted to the unprecedented COVID-19 situation, leading discussions and implementations of remote events best suited to the society's members.

Mathematics Tutor

Privately Empoyed

- Encourage an enthusiasm for mathematics in students, while also developing their own ability and strive for academic success.
- Develop trust by both respecting the student's ability and acknowledging their mistakes without judgement.
- Balance own schedule to be as flexible as possible in arranging sessions best suited to the student and their family.

Extra-Curriculars

- Member of Women in STEM Society at Adelaide University; regularly engaging in events including talks on diversity in STEM.
- Volunteer at the School of Mathematical Sciences stall at Ingenuity 2019; enthusiastically promoted the mathematics career pathway to school students by drawing upon own experiences.
- Black belt in Taekwondo, recognised by International Taekwondo Federation.
- City to Bay run in 2019.
- Rock-up cricketer at Adelaide University Cricket Club.

Hobbies & Interests

- Cricket, with a passion for analysing the game.
- Self-taught bass player.
- Running and exercise.
- Reading (classics, science fiction, fantasy).