

APRIL KIDD

EDUCATION

The University of Queensland

Bachelor of Mathematics & Computer Science (Pure Mathematics)

QLD Commitment Scholar, 2025 Aspire Scholar, 2025 Waters Family Scholar

Feb. 2025 - Present

Brisbane, QLD

EXPERIENCE

Software Engineer

Rise

Jul. 2026 - Present

Brisbane, QLD

- Incoming software engineer focusing on backend development in NestJS and AI engineering

Teacher Aide / Technical Officer

Tamborine Mountain State High School

May 2026 - Present

Tamborine Mountain, QLD

- Support teachers in class by helping students work through learning tasks, explaining concepts step by step, and keeping students engaged with the lesson.
- Provide technology support for staff, classrooms, and school operations, troubleshooting issues clearly and patiently to keep lessons and day-to-day school work moving.

Software Developer Intern

Queensland Investment Corporation (QIC)

Sep. 2025 - Apr. 2026

Brisbane, QLD

- Maintained and validated Bloomberg and Reuters market/derivatives data pipelines used by integration and analytics teams.
- Diagnosed and resolved dropped connections and deadlocks in data pipelines handling over 500,000 daily market events, reducing failure rates by ~85% and ensuring reliable delivery.
- Identified and fixed a bilinear interpolation defect in realised bond-volatility calculations, refactoring state management and adding CI regression checks.

Software Engineer

UQ Racing

Feb. 2025 - Oct. 2025

Brisbane, QLD

- Authored C++ and Python code for vehicle computer vision systems, leveraging simulation and real-world test data to reduce processing latency by 2ms and increase path planning accuracy by 15%.
- Refactored the AV cone detection algorithm, splitting C++/Python bases into modular components to reduce complexity.
- Collaborated with engineering teams to integrate software components ensuring compliance with Formula SAE specs.

Secretary

UQ Computing Society

Oct. 2025 - Present

Brisbane, QLD

- Previously **General Executive Committee** (Aug. 2025 - Oct. 2025). Managed executive operations and liaised with industry sponsors to fund technical workshops and student competitions.
- Ran flagship events end to end, including competitions with 180+ participants — coordinated venue, catering, sponsor logistics, and run-of-day.
- Drove outreach initiatives that expanded the community by 400+ Discord members and 2,000 social media followers, alongside increasing social event attendance.

Industry Insight Programs

- **SIG Discovery Program** (Trading Stream) | Sydney, NSW | Sep. 2026
- **Optiver Future Focus** (Technology Stream) | Sydney, NSW | Sep. 2025

PROJECTS AND COMPETITIONS

Inference | *Python, NumPy, SciPy, Monte Carlo simulation*

Apr. 2026 - Present

- Designed and ran a quantitative estimation competition (inferenc.me) — authored original problem statements in market microstructure, parimutuel betting, and derivatives pricing, with 300+ participants across scored rounds.
- Engineered simulation-based grading systems including a PvP market-making scorer with price-priority fill mechanics and adversarial bot agents, and a shared-path Monte Carlo evaluator for options portfolio allocation.
- Designed a normalised scoring framework aggregating performance across heterogeneous problem types, with rank-proportional point allocation and automated round lifecycle management.

Optiver Volatility Lab | *Python, numpy, pandas, statsmodels*

Mar. 2026

- 1st place out of 120 participants at UQ-hosted competition run by Optiver.
- Forecasted realised volatility by fitting a constrained ensemble model to high-frequency microstructure features, selecting and weighting predictors based on temporal autocorrelation structure.

Citadel Securities Invitational | *Algorithm development*

May 2025

- 3rd place out of 80 participants. Designed a Python algorithm for real-time decision-making and low-latency execution.
- Developed and calibrated a stochastic control model (Avellaneda-Stoikov) for dynamic inventory optimisation under uncertainty, fitting model parameters to noisy market microstructure data in real time.

IMC CodeJam & SPAR Competitions

Apr. - May 2025

- IMC: 9th place out of 80 contestants | SPAR: 34th place (Bronze medal) out of 486 contestants.

TECHNICAL SKILLS

Languages: Python, Java, R, SQL, TypeScript

Libraries: NestJS, pandas, NumPy, PyTorch, scikit-learn, Matplotlib, statsmodels

Tools: Git, Linux/Unix Command Line, Docker, JUnit, pytest, GitHub Actions, CI/CD