

Daniel Braithwaite

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PERSONAL STATEMENT:

Motivated and dedicated final-year Software Engineering (Honours) student at the University of Technology Sydney, specialising in Software-In-The-Loop (SITL) testing, machine learning, and scalable developer tooling. Strong foundation in automated test design, CI/CD pipeline architecture, and cross-functional collaboration. Seeking opportunities to apply technical and analytical skills in real-world, high-impact software development environments.

EDUCATION:

Bachelor of Engineering (Honours) <i>Majoring in Software Engineering</i> WAM (after transferring): 77.7 University of Technology Sydney	2022 – 2025 (Expected)
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Accomplishments:

Data Structures and Algorithms	High Distinction
Machine Learning	High Distinction
iOS Industry Studio	High Distinction
Software Design Studio	High Distinction
Software Innovation Studio	High Distinction
Software Architecture	Distinction
Software Analysis Studio	Distinction

RELEVANT EMPLOYMENT:

Advanced Navigation – Software Test Engineer Intern

- Improved SITL test coverage and internal firmware testing tools, leading to faster execution and improved result reliability.
- Refactored Python dependency management by adopting PEP 621-compliant pyproject.toml for unified build and packaging configuration, improving reproducibility and environment isolation across CI and developer machines.
- Authored internal documentation to support Python tooling setup and version control for support engineers.
- Guided support teams in transitioning from MATLAB to Python scripting, improving maintainability and reducing overhead.
- Overhauled GitLab CI pipelines: improved uptime, introduced automated linting with merge request feedback, and enhanced JUnit reporting.
- Collaborated with cross-functional teams to resolve defects, improve pipeline transparency, and accelerate development cycles.
- Enhancements to CI and automated testing contributed to a surge in pipeline activity—from ~50 per month to over 1000 during peak firmware development.

Veremark – Test Automation Engineer Intern

- Created a Pytest-based testing framework with customisable test selection and PDF reporting for non-technical users.
- Reduced manual QA effort by optimising execution flow and test reliability.
- Standardised YAML-based test configuration, empowering broader team adoption.
- Integrated logging and exception handling utilities to improve debuggability and maintainability of test suite.
- Contributed to documentation and onboarding materials to support adoption across QA and development teams.

PROJECTS:

AuslanLive – Software Innovation Studio

- Created an end-to-end software solution for translating Australian Sign Language to typed text and vice versa.
- Implemented a word separation algorithm to separate continuous Auslan signing into distinct signed words.
- Co-created a transformer based Neural Network approach to convert distinct signs into Australian English words.
- Received 2nd place community choice awards out of 26 groups.

Psithurism – iOS Industry Studio

- First cohort in Australia to complete a university subject for the Apple Vision Pro.
- Responsible for developing the Apple Watch application, Apple Vision Pro application UI, immersive environments, sound design, animation and timekeeping.
- Led group of 3 to develop a cross-platform application for the Apple Watch and Apple Vision Pro.

Eyedentify – Software Design Studio

- Developed a Semantic Image Segmentation model used to blur video backgrounds in real-time.
- Assisted in the development of MongoDB storage solution for image and data verification.
- Project received a final mark of 97%.

TECHNICAL SKILLS:

Languages:	Python, Bash, C++, SwiftUI, Javascript
Libraries & Frameworks:	Pytest, React, Bootstrap, NodeJS, Docker, Selenium
Tools & Services	Git, GitLab, GitHub, Jira, Confluence, Postman, PostgreSQL, MongoDB, Firebase, Cisco IOS CLI
Testing & CI/CD:	JUnit, Pytest, GitLab CI, YAML config, Linting tools, Selenium

EMPLOYMENT:

Employrite – Verification Associate

- Processed searches and reports related to background screening applications, focusing on Australian Federal Police (AFP) and Australian Criminal Intelligence Commission (ACIC) platforms.
- Ensured thorough and accurate review of information from responses, government records, and other documents with high accuracy (<1% error rate).
- Communicated directly with clients and candidates to resolve any issues in a timely manner.