

Joseph Wong

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EDUCATION

UNSW | *Adv Maths / Comp Sci*

2020 – 2026

- Undergraduate Degree in Advanced Mathematics and Computer Science
- Majoring in Applied Mathematics
- Graduating in 2026

EXPERIENCE

Pre-Uni New College

2022 – 2024

Primary and High School Tutor

Bankstown, NSW

- Tutored Primary Selective Test (Mathematics, English) students in a classroom setting.
- Tutored High School (Mathematics, English, Science) students in a classroom setting.

SKILLS

Programming Languages	Frameworks	Tools and Techniques
Python Prolog C++ C Java MIPS VHDL MATLAB	PostgreSQL MongoDB Docker Flask	API Integration Jira Confluence Git Fusion360

PROJECTS

Personal Website Project | [GitHub](#)

2026

- **Technologies:** Python, Flask, PostgreSQL, HTML, CSS, JavaScript
- Built a Flask monolith with route, API, and static-resource blueprints for account flows, admin tools, and integrations.
- Implemented secure authentication with hashed server-side session tokens, plus registration and email-verification workflows.
- Developed a modular server-side webpage builder to generate consistent layouts, forms, dashboards, and admin pages.
- Added service integrations including Discord webhook events and Minecraft whitelist synchronization with approval workflows.

MARL (Multi-Agent Reinforcement Learning) Project | [GitHub](#)

2025

- **Technologies:** Python, PettingZoo, Gymnasium, PyTorch, CUDA
- Custom two-player board-game environment with dynamic action masking.
- Reward shaping, entropy regularization, and curriculum learning for multi-agent RL
- Dual convolutional policy networks trained via REINFORCE and self-play against heuristic (Greedy, Blocker) and historical checkpoints

UNSW COMP3900 Capstone Project | [GitHub](#)

2024

- **Technologies:** React, Vite, Flask, Python, MongoDB, Docker, Google Gemini API
- Engineered a web platform for capstone project management, enabling multi-course administration and automated project allocation using skills-based matching and natural language parsing with the Google Gemini API.
- Collaborated using Git and Jira in an Agile workflow with regular standups, code reviews, and pull request management to ensure seamless feature integration and code quality.