

Lawrence L Qi

Singapore from November 2026 | Currently Melbourne, Australia

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Enthusiastic Computer Science student with a keen interest in IT and programming. Eager to apply academic knowledge in AI and machine learning to real-world projects. Proficient in multiple programming languages, with strong problem-solving abilities and a passion for learning. Seeking opportunities to gain hands-on experience and contribute to innovative AI projects.

Education

Monash University *Bachelor of Computer Science*

Expected October 2026

Skills

Technical Skills: Python, Pandas, R, MS Project, Java, Javascript/CSS/HTML, SQL, Azure, AWS, Docker, Linux, NumPy, Pytorch, Git

Interpersonal Skills: Fluent in Mandarin, Cantonese, French, Positive Influence/Leadership in Team-Based Environments, Conflict Resolution, Attention to Detail

Projects

Automated Shopping Cart (C++, Arduino)

UNI HACK 2025 — 5-person team | March 2025

- Built a functional autonomous shopping-cart prototype within a 48-hour hackathon, combining embedded hardware, navigation, voice interaction, and RFID-based item identification.
- Independently developed an A*-based pathfinding system that modelled store layouts and calculated shortest routes between grocery locations.
- Implemented real-time obstacle avoidance using concepts from the Dynamic Window Approach and Velocity Obstacles, enabling dynamic rerouting around people and objects.
- Collaborated within a 5-person team to integrate motors, sensors, Arduino hardware, and software into a working end-to-end prototype.

AI Email Assistant (Python, OpenAI API, SQLite, Chrome Extension API, Git)

5-person team | March 2026 – Present

- Developing an AI-powered email assistant designed to reduce time spent triaging, reading, and responding to high-volume inboxes.
- Built an LLM orchestration pipeline supporting email classification, priority detection, thread summarisation, and response generation.
- Designed a Human-in-the-Loop approval workflow that prevents AI-generated responses from being sent without user confirmation, reducing risks associated with hallucinated or inappropriate content.
- Conducted interviews with professionals working in large organisations and translated feedback into product requirements including priority detection, concise summaries, and hands-free interaction.

Valorant Live Win-Probability (Python, XGBoost, Docker, Nginx, PostgreSQL)

April 2026 – Present

- Developing a real-time machine-learning system that estimates round win probability during professional Valorant matches.
- Built a data pipeline combining historical VCT results, API data, and match footage to generate features covering economy, player advantage, ultimate availability, map state, and Spike status.
- Training and evaluating gradient-boosted decision-tree models with a target predictive accuracy of 75%+ on professional match data.
- Containerised the prediction service using Docker and exposed inference through REST endpoints behind an Nginx reverse proxy.

Self-Hosted Homelab & Kubernetes Cluster (Proxmox, Kubernetes, Docker, Linux, Nginx, Cloudflare) **September 2025 – Present**

- Designed and maintain a multi-machine homelab using Proxmox, Linux, Docker, and Kubernetes to host application, media, game-server, and machine-learning workloads.
- Built a multi-node Kubernetes cluster, combining compute resources across multiple machines and managing containerised workloads across the cluster.
- Deployed services including Jellyfin, databases, reverse proxies, and custom applications, with selected services securely exposed using Nginx, Cloudflare DNS, and HTTPS.
- Developed a fully local LLM chatbot using a dataset created from personal message history without relying on hosted AI APIs such as OpenAI.
- Managed multi-terabyte storage, networking, and Linux permissions, including troubleshooting that improved large-file transfer speeds from approximately 10 MB/s to 70 MB/s.

Professional Experience

NetGain

November 2026 - February 2027

Incoming AI/ML Intern

- Selected for a 3-month AI/ML internship focused on exploring how knowledge distillation and smaller locally hosted language models can reduce reliance on large external models within infrastructure and monitoring workflows.
- Will evaluate open-weight models for tasks including log analysis, classification, summarisation, structured extraction, and routing, benchmarking accuracy, latency, memory usage, and inference cost on CPU-based systems.
- Will investigate fine-tuning, LoRA, quantisation, model distillation, and fallback architectures for escalating complex or uncertain cases to larger models.
- Expected to prototype and evaluate local model pipelines and present findings, experiments, and technical recommendations through regular review sessions with the engineering team.

Unitop

February 2023 - Present

Academic Tutor

- Provided personalised tutoring sessions for students ranging from grade 1 to grade 9, improving students marks by up to 35 percent.
- Collaborated with parents and teachers to develop and adjust learning plans, ensuring alignment between home and classroom environments.