Jay Ree

lee010518@gmail.com

LinkedIn,GitHub,Website

0452134809

Final-year Software Engineering (Honours) student at Monash University – graduating Nov 2026 – and a recipient of the 2023 and 2024 Monash Engineering Dean's Honours (Top 3%). I recently co-founded AIVA as CTO, building an AI-powered executive assistant platform, and am conducting research at Monash University under Dr Eunus Ali. I also bring experience as a Full-Stack Developer Intern at JobSearch.Works and as an IT Analyst at Coles Group. In my free time, I practise kendo, explore the outdoors, and build self-driven software projects.

Experience

Chief Technology Officer (CTO) – AIVA, Melbourne   **Dec 2025 –**
Project: AI-Powered Personal Executive Assistant for Productivity & Time Management

- Led the end-to-end architecture and development of a full-stack AI assistant platform — building the backend in Node.js (Express) with Supabase (PostgreSQL) and the mobile client in Flutter (iOS) — integrating third-party services including Google Calendar, Notion, and Google Cloud voice APIs to deliver a unified productivity tool.
- Owned the AI feature pipeline, designing a conversational assistant using Google Gemini that autonomously manages calendar scheduling, task prioritisation, and personalised recommendations through long-term memory of user preferences.
- Directed technical strategy and sprint planning across frontend and backend teams, driving code reviews, API design decisions, and release cycles while coordinating cross-functional collaboration between developers and designers.

Research Assistant – Monash University, Clayton Victoria   **Nov 2025 –**
Project: Dynamic Platoon Formation of Multi-Type Autonomous Vehicles for Sustainable Urban Mobility

- Co-authored an IEEE ITSC-targeted research paper with Dr. Mohammed Eunus Ali, introducing a novel system where smaller Passive Vehicles (PVs) are physically towed by larger Active Vehicles (AVs) on shared highway segments, formulating the platoon formation problem as a constrained optimisation model with multi-segment matching and point-wise capacity constraints.
- Designed and implemented two matching algorithms — a Greedy Maximum-Weight Matching baseline and an Iterative Linear Assignment (ILA) method using the Jonker–Volgenant solver — achieving 25–52% energy-proportional distance coverage across synthetic scenarios with up to 400 PVs and 80 AVs.
- Built an end-to-end experimental framework in **Python** (NumPy, SciPy, Pandas, Matplotlib) with parameter sweep experiments, automated data pipelines, and comparative visualisation tools for algorithm benchmarking.

Full Stack Developer Intern – Job Search Work, Melbourne   **May 2025 – Nov 2025**

- Built core features for an AI-powered job application SaaS, including resume–job matching and automated application workflows using **React**, **TypeScript**, and **Firebase**.
- Improved deployment reliability by setting up CI/CD with **GitHub Actions** and Husky.

IT Analyst – Hardware Co-Ordination Intern – Coles Group   **Jul 2024 – Dec 2024**
Hawthorn, Victoria

- Coordinated hardware lifecycle management across multiple Coles Divisions, ensuring smooth deployments, upgrades, and resolution of hardware-software integration issues across functional

teams.

- Automated manual reporting processes using [VBA](#) (Microsoft Macro), reducing processing time from 4 hours to 30 minutes, streamlining asset tracking and improving data accuracy across the team.
- Optimised vendor management and asset processes, securing cost-saving agreements and contributing to over $90,000 in operational savings through lifecycle planning.

Education

Monash University   **July 2020 – Present [Expected Graduation: 2026]**

- Bachelor of Engineering (Honours) in Software Engineering as a 2023 & 2024 Monash Engineering Dean's Honours recipient (Top 3% of engineering students), with GPA 3.769 / 4.000 (High Distinction).
- Working proficiency in **Python**, **Java**, **TypeScript/JavaScript**, **Tailwind CSS**, **MongoDB**, **SQL**, and **PHP** for software development; strong understanding of algorithms, data structures, and databases. Experienced with **Linux**, **Angular**, **React**, **Meteor**, **Firebase**, and **Git**. Industry experiences developing Microsoft Excel **Macros** for system automation and debugging hardware using measurement tools.
- Designed a multi-user, real-time web application for *Personal Meal Planning Assistant*, enabling users to manage personal recipes, track inventory, reduce food waste, and receive AI-powered meal recommendations. Built with **Angular** (framework) and **TypeScript** (front-end/back-end).
- Developed a fully-fledged, live, *[multi-user café-management](#)* RTE system using **TypeScript**, **Tailwind CSS**, **MongoDB** (front-end/back-end) and **Meteor** (framework) for real-time operational coordination.

Monash College (Foundation Year)   **July 2019 – June 2020**

- Graduated with GPA of 4.0/4.0 (High Distinction)
- Recipient: Engineering International Undergraduate Excellence Scholarship (awarded for ATAR equivalent >96 and exceptional academic performance).

Self-driven Project

Redesign Local Business Website ([Glory Auto](#))

- Redesigned and deployed the business website for a [local mechanic workshop](#) in Oakleigh, Victoria, improving functionality and usability using HTML, CSS, JavaScript, and [EmailJS](#) for reservation handling.
- Reduced annual costs by up to $10k by removing reliance on third-party VACC maintenance, and increased website traffic and reservation requests by over 50% compared to the previous site.

Awards & Honors

2024 Monash Engineering Deans Honours (Top 3% of cohort) – Jun 2025
2023 Monash Engineering Deans Honours (Top 3% of cohort) – May 2024
Industry-Based Learning Placement Scholarship – July 2024
Academic Commendation for Highest Grade in [FIT2081](#): Mobile Application development – May 2024
Engineering International Undergraduate Excellence Scholarship – Jun 2020

Certifications

[AWS Certified Cloud Practitioner](#) – Mar 2025