

MAH HAO JUN

Singapore, Singapore Citizen | +65 92360786 | mahhaojun03@gmail.com | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

EDUCATION

National University of Singapore

Bachelor of Computing, Computer Science

Cumulative GPA: 4.5

Relevant Coursework: Software Engineering; Data Structures and Algorithms; Programming Methodology

Singapore

May 2027

WORK EXPERIENCE

Fly Fairly

Software Engineer Intern

Singapore

Jan 2026 – Apr 2026

- Identified and eliminated 3 key operational bottlenecks through structured stakeholder interviews.
- Built back-office reporting dashboard with Next.js, reducing cross-team coordination overhead and improving sprint throughput by an estimated 20%.
- Proposed and documented modernized tech stack solutions for interviewed problems which are adopted into the technical roadmap for 3 out of 6 company's departments for future implementation.

Toppan Ecquaria

Software Engineer Intern

Singapore

May 2025 – Jul 2025

- Designed and integrated RAG pipelines and LLM-based AI agents into enterprise SaaS products, enabling context-aware document Q&A; deployed across 10+ client companies, directly contributing to new product adoption and upsell opportunities.
- Enhanced an AI lip dubbing system by leveraging open-source audio models such as Kokoro and the LatentSync lip-sync model, enabling multilingual AI video dubbing solutions sold at \$5,000 per license.
- Refactored and modernized multiple web applications using React and FastAPI, improving UI performance, scalability, and production-readiness for deployment across the Toppan Next Group's 2,000 users.

Lyza Education

Software Engineer Intern

Singapore

Mar 2024 – May 2024

- Built and deployed a web-based learning management tool in Next.js used by 100+ students to submit assignments, track progress, and receive automated feedback on programming exercise

PROJECTS

GroceryPicker, Independent Software Development Project (Orbital – Apollo 11 Level)

May 2025 – Jul 2025

- Built an Android application with React Native + Express.js that returns the best prices for each grocery out of every major supermarket, allowing users to minimize spending with ease.
- Implemented rigorous and scheduled web scraping of supermarket groceries with Playwright hosted on GCP to obtain a database of 50k groceries, which is stored in PostgreSQL (Supabase).
- Developed an accurate RAG enhancement to LLM to allow sieving of cheapest groceries and semantic search.

Aimlabs & Parkour

May 2024 – Jul 2024

- Engineered a custom 3D game engine in C++ and OpenGL from scratch, implementing a scene graph, frustum culling, and a custom memory allocator to achieve stable 60+ FPS rendering on mid-range hardware.

EXTRACURRICULAR ACTIVITIES

Software Engineer, Google Developer Student Club @ NUS

Aug 2025 – Present

- Working with Caring For Life to build a full stack application with Next.js + FastAPI to streamline their onboarding, volunteer management and workflows.
- Developed frontend pages with React and integrated API calls using TanStack.

Software Engineer, NUS Fintech Society

Aug 2025 – Present

- Building AI-powered itinerary planner with HeyMax.
- Developed transcribers for popular social media platforms, converting social media posts into context for generation of itinerary plans.

Languages: Python, JavaScript, Java

Frameworks: React, React Native, FastAPI, Next.js, Express.js

Databases: PostgreSQL

Skills: Git, System Design, Writing PRDs