

Gabriel Ong Zhe Mian

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Full-Stack Developer specialising in Legal Technology

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EDUCATION

Singapore Management University

BSc Computing and Law, Cybersecurity (2nd Major)

Aug. 2023 - May 2027

GPA: 3.60/4.00

Anglo-Chinese School (Independent)

International Baccalaureate Diploma Programme

Jan. 2019 - Nov. 2020

Points: 44/45

SKILLS

Frontend: React, Next.js, React Native, Flutter, Electron.js

Backend: Python, TypeScript, Go, Rust, SQL, Java, Node.js

Cloud: GCP, AWS, Docker, Kubernetes, GitHub Actions, Supabase, MongoDB, Pinecone, Cloudflare

Legal: Intellectual Property Law, Privacy & Data Protection Law, Company Law, Contract Law

EXPERIENCE

WhyHow.AI, San Francisco: Software Development Intern

Aug. 2025 - Dec. 2025

- Architected a multi-agent ETL pipeline using **Python** and **Pydantic AI** to detect emergent harms across **50,000+** PubMed abstracts, reducing manual review time by **60%**.

Custom Automated Systems, Singapore: Full-Stack Development Intern

May 2025 - Aug. 2025

- Developed a RAG-based refinement engine with **TypeScript** and **Hugging Face**, improving query accuracy by **25%** across **7,500+** profiles.
- Optimised client-side LLM inference for ProQuaere using **WebGPU** and **Electron.js**, achieving a **40%** reduction in average response latency.

SMU Yong Pung How School of Law, Singapore: Research Assistant

Jan. 2025 - Aug. 2025

- Architected a **15-agent** adversarial network with **Pydantic AI** and **ChromaDB** to simulate multi-party legal debate, contributing to the academic publication *Hercules in Silico* under Asst. Prof. Jerrold Soh.

Elefant, Singapore: Backend Development Intern

Sep. 2024 - Dec. 2024

- Engineered **CI/CD** pipelines in **Python** and **GCP** that automated end-to-end data extraction, enrichment, and validation workflows, reducing data processing effort by **65%** and improving data reliability.

PROJECTS

⌚ **Yoho:** Domain-specific language (DSL) in **Rust** that provides a formal, programmatic representation of Singapore's Penal Code, enabling automated legal reasoning and statute querying across **350+** criminal offences.

⌚ **Sea Kayak:** **React** and **Node.js** web application that aggregates, curates and serves real-time legal news from **10+** Singapore sources.

⌚ **Jikai:** Tort law hypothetical generation pipeline in **Python** and **LangChain**, enabling law students and researchers to create legal scenarios for academic study with an average generation latency of **3 seconds** per scenario.

AWARDS & COMPETITIONS

SMU Global Impact Scholarship Award

Aug. 2023 - May 2027

Premier flagship scholars' award

SMU LIT Hackathon 2025

Sep. 2025

1st Place (MinLaw Track 2)

NUS Product Club Vibe-Building Hackathon 2025

Aug. 2025

2nd Place

HackOMania 2025

Feb. 2025

GeeksHacking Choice Award

YouthTechSG YouthxHack 2024

Aug. 2024

1st Place (Digital Defence Track)