Amirul Azizol

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OVERVIEW

Early career software engineer based in Singapore with a foundation in backend infrastructure and ML pipelines.

TECHNICAL SKILLS

Languages: Java, Go, Python, TypeScript/JavaScript, SQL, C++, Swift
Infrastructure & Tools: AWS, GCP, Docker, Kubernetes, Jenkins, CI/CD, PostgreSQL, Git
Frameworks: Spring Boot, FastAPI, React, Next.js, Node.js, Angular
Machine Learning: PyTorch, Transformers, Ray, PyArrow

EXPERIENCE

Siri Language Engineer   Apr. 2025 – Present
Apple (via TransPerfect)   *Singapore*
– Engineered ML pipelines for Malay voice assistant capabilities, working on ASR, NLU, TTS, and agentic LLMs.
– Fine-tuned transformer-based semantic parsing and execution routing models; resolved 200+ regression bugs while maintaining **95% recall and precision** across key intent categories. (PyTorch, Ray)
– Designed and executed ML experiments on preprocessed datasets, achieving a **23% reduction in data noise** via automated filtering heuristics. (Kubernetes)
– Collaborated with data curators to construct high-quality datasets spanning 14 domains (10K+ entries).
– Automated end-to-end UI interaction for voice assistant, reducing manual QA effort by **90%**. (Python, Swift)
– Delivered 50+ localized health features by implementing new logic, triaging bugs, and validating integration tests.

Software Engineer Intern   Jan. 2024 – Jun. 2024
Wavelet Solutions   *Kuala Lumpur, Malaysia*
– Optimized infrastructure and ensured reliability for an ERP processing **1M+ monthly financial transactions**.
– Engineered asynchronous ETL job processors to migrate **5M+ records** to a centralized data lake. (SQL, AWS)
– Designed RESTful APIs using Spring Boot, enforcing strict error handling to meet a **99.9%** uptime SLA. (Java)
– Developed and deployed a UI module for 10+ applets, adopted by thousands of enterprise users. (Angular)

Firmware Engineer Intern   Nov. 2023 – Jan. 2024
Western Digital   *Kuala Lumpur, Malaysia*
– Developed C++ firmware features for enterprise HDDs and Python automation scripts for failure analysis.
– Implemented retry logic in Jenkins pipelines, reducing false positive failures and saving hours of weekly debugging.
– Reduced outstanding bugs by **21%** for the host interface team.

PROJECTS

Multimodal LLM with RAG (Final Year Project)
– Awarded **2nd Best FYP** in cohort for research potential in medical imaging and forensics VQA.
– Fine-tuned an 8B vision-language model, improving accuracy by **30%** over baseline by integrating RAG and CoT.
– Architected a vector database with a custom chunking algorithm and a hybrid retrieval algorithm.

RxNet
– Built a decentralized prescription tracking system with smart contracts to prevent fraud and improve traceability.
– **Finalist** at APU Devmatch and **cash prize winner** at Monash Hackfest.

Ren
– Developed a gamified environmental community app, ranked Top 10 at Kitahack (for Google Solution Challenge).

EDUCATION

Monash University   Feb. 2022 – Apr. 2025
Bachelor of Computer Science (Advanced); Major in CS, Minor in Cybersecurity   *Kuala Lumpur, Malaysia*
– **GPA: 3.92/4.0** | WAM: 87.1 (Top 1% of Cohort)
– Awards: Monash High Achiever Award, Industry Based Learning Scholarship.
– Teaching Assistant: Theory of Computation (FIT2014) & Intro to Programming (FIT1045).