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EXPERIENCE

AI Singapore

Associate AI Engineer

Nov 2024 – Jun 2025

- Successfully delivered the first version of [Project Aquarium](#), a collaborative initiative with Google and ASEAN stakeholders, aimed at increasing language representation within Southeast Asia.
- Led the design of the schema for a pgvector-extended PostgreSQL database to enable real-time semantic search across multilingual datasets within an agentic RAG system orchestrated with LangGraph.
- Developed and deployed over 15 Pydantic-validated REST API endpoints served with FastAPI, tested via Postman for standard query-response flows and optimized for <100ms average response latency on GCP.
- Leveraged the Google Gen AI SDK to implement AI-integrated data post-processing pipelines that enriched dataset metadata quality, primarily using Gemini Flash models for efficiency.
- Built a secure internal Streamlit CRUD app to manage 2000+ metadata entries, reducing manual data handling effort across the team by 80%.
- Developed dynamic React components integrated into a live production-grade NextJS webapp, enhancing UI responsiveness and modularity.

AI Apprentice

Sep 2024 – Nov 2024

- Completed a rigorous 9-week deep-skilling program that spanned various machine learning domains including Computer Vision and Natural Language Processing.
- Acquired hands-on experience with PySpark to process big data and MLFlow for model tracking.
- Engaged in multiple knowledge-sharing sessions with fellow apprentices, including a demonstration of how Bayesian posteriors can be modelled to optimize model selection in response to data drift.
- Trained an object detection model using Ultralytics YOLOv11 to monitor snack pantry inventory in real time, reducing manual stock checks as part of the program capstone.
- Appointed as mentor for a new cohort on Time Series Analysis, having ranked among the top performers in advanced statistical modelling assessments.

FDM Group

Software Developer

Oct 2023 – May 2024

- Collaborated with cross-regional teams (Singapore & Hong Kong) to develop Java-based POCs using Spring Boot, Hibernate ORM, SQL, and React, demonstrating RESTful design and DB integration for simulated client apps.
- Leveraged Postman to automate API testing, and JUnit and Mockito for unit tests.
- Implemented automated actions using record-triggered flows as part of a Salesforce training capstone project.
- Actively applied Agile practices to enhance adaptability and project delivery efficiency.

EDUCATION

Nanyang Technological University, Singapore

Aug 2018 – Dec 2022

School of Physical and Mathematical Sciences

Bachelor of Science (Honours), Mathematics and Economics

CO-CURRICULAR ACTIVITIES & COMMUNITY SERVICES

Head of Logistics @ NTU Inline Skating Club

2019

Volunteer Tutor @ Taman Jurong Community Centre

2019

SKILLS

AI/ML Engineering – LangChain | PyTorch | TensorFlow | PySpark | MLFlow | Streamlit | Gradio

Backend – Python | FastAPI | SQLAlchemy | SQL (PostgreSQL, MySQL) | Java | Spring Boot | Hibernate

Frontend – React | NextJS | TanStack Router | Vite

DevOps/Tools – Git | Docker