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EDUCATION

Nanyang Technological University, Singapore   Aug 2018 – Dec 2022

School of Physical and Mathematical Sciences

Bachelor of Science (Honours), Mathematics and Economics

MAIN SKILLS

Git	**Python**	**SQL**
Data Analysis	**Large Language Models**	**Retrieval Augmented Generation**

EXPERIENCE

AI Singapore

Associate AI Engineer   Nov 2024 – Jun 2025

- Successfully delivered Project Aquarium, a collaborative project by AI Singapore, Google, and various ASEAN stakeholders.
- Lead the design of a **PostgreSQL** (**pgvector** extended) database to cater to and enable semantic search capabilities for an underlying agentic **RAG** system implemented using **LangGraph**.
- Developed robust Pydantic validated REST API endpoints served with **FastAPI**.
- Leveraged **Google Gen AI SDK** to implement AI integrated data post-processing pipelines to enrich the quality of dataset metadata.
- Built an internal CRUD application to improve the overall data management experience for the team with **Streamlit**.
- Implemented various dynamic features for the Aquarium platform that is built using **NextJS**.

AI Apprentice   Sep 2024 – Nov 2024

- Completed a rigorous 2-month deep-skilling program that spanned across 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 demonstrating how Bayesian posteriors can be modelled to optimize model selection in response to data drift.
- Served as the mentor for the subsequent batch of AI Apprentices on **Time Series Analysis**.

FDM Group

Trainee Software Developer   Oct 2023 – May 2024

- Collaborated with fellow FDM trainees in Singapore and Hong Kong to develop **Java** based POCs using **Spring Boot**, **Hibernate ORM**, **SQL**, and **React**.
- Leveraged **Postman** to automate API testing, and **JUnit** and **Mockito** for unit tests for Java applications.
- Worked on the development of automated actions using record-triggered flows as part of a capstone project during **Salesforce** training.
- Actively applied **Agile** practices to enhance adaptability and project delivery efficiency.

Ministry of Health

Case Data Operations Coordinator   Jun 2021 – Aug 2021

- Aggregated and validated patient data from quarantine facilities to improve the delivery of daily discharge operations during the height of Covid-19 pandemic surges.
- Coordinated with different teams to maximize patient outcomes by ensuring that current policies were being adhered to, and that high-risk patients were identified and carefully monitored.

OTHER NOTABLE PROJECTS

Personal Portfolio WebApp (WIP)

- Currently working on populating contents for my personal **React** portfolio webapp powered by **TanStack router** deployed to GitHub pages.
- It features **GSAP** animations on top of **Shadcn** and **MagicUI** components.
- **Algolia DocSearch** integration is currently in the works to provide a search feature over my personal collection of notes.

Game Contributions Extractor

- Developed an **OCR** pipeline in Python using **PaddleOCR** to extract structured text data from images segmented via the analysis of pixel value variances.
- Implemented **fuzzy string matching** to approximate incomplete text strings.

CO-CURRICULAR ACTIVITIES & COMMUNITY SERVICES

Head of Logistics @ NTU Inline Skating Club   2019

- Facilitated the organization and upkeep of club inventories and ensured that sufficient skates were available for rent.
- Worked with committee members to plan and execute exciting club events.

Volunteer Tutor @ Taman Jurong Community Centre   2019

- Tutored preschoolers on fundamental arithmetic concepts on a weekly basis.