

LIM ZHENG XUAN

limzhengxuan98@gmail.com | (+65) 81896929 | [LinkedIn](#) | [GitHub](#) | [Website](#)

WORK EXPERIENCE

AI Singapore

Jan 2023 – Present

AI Apprentice (AIAP Batch #15)

- Completed an extensive training programme covering topics such as Neural Networks, Time Series, Computer Vision, Natural Language Processing and MLOps
- Analyzed business requirements for a grammar correction and error classification application, translating them into actionable technical specifications for development
- Formulated and developed data cleaning and feature engineering pipelines using Kedro to automate data preprocessing for downstream tasks, increasing data ingestion efficiency
- Implemented RAG architecture using vector databases to integrate document retrieval methods, increasing the accuracy of generated responses
- Experimented Prompt Engineering techniques (e.g., Few Shot, Chain of Thought) using LangChain to steer LLMs towards generating desired outputs
- Carried out fine tuning of LLMs using OpenAI SDK to further improve model performance
- Performed containerized deployment of the application using FASTAPI and Docker
- Mentored a group of 6 newer apprentices on machine learning concepts and good software practices to accelerate their learning experience in the programme

BioQuest Advisory

Jul 2022 – Dec 2022

Data Science Intern

- Executed maintenance works, including troubleshooting and process performance analysis, for a RPA project built using UiPath, ensuring high process reliability during production
- Developed a chatbot Proof-Of-Concept using a SaaS tool, followed by UAT sessions to ensure product meets the requirements of the client

National University Health System (NUHS)

May 2022 – Jul 2022

AI & Data Science Intern

- Built a RESTAPI service from scratch to carry out ETL processes using an enterprise-level data integration software to support a chatbot application
- Performed deployment of the RESTAPI service through Docker and Kubernetes in the test environment
- Collaborated in a team of 6 members following the Agile SCRUM framework to develop the chatbot application according to Sprint objectives

EDUCATION

National University of Singapore (NUS)

- Bachelor of Engineering with Honours (Distinction)
- Minor in Computer Science

PROJECTS

Fake Face Detection

- Achieved 60% test accuracy on fake face detection task by leveraging a pretrained InceptionResnet model with custom classifier head built using PyTorch
- Hosted the AI engine using a Python Flask application to facilitate efficient inferencing, streamlining the prediction process
- Implemented Explainability AI techniques (GradCAM) to improve model transparency and interpretability, enabling users to better understand AI predicted outputs

Mahjong Tile Detection

- Performed image augmentation on an image dataset using OpenCV to expand dataset by 10 times
- Trained a YOLOv7 model to accurately detect and classify 3 types of Mahjong tiles on images, videos and in real-time using webcam

SKILLS

Python | SQL | Java | Numpy | Pandas | Scikit-Learn | Matplotlib | TensorFlow | PyTorch | HuggingFace | Git | Docker | Kubernetes | Kedro | MLOps | Agile