Ting-Yu Liang

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EDUCATION

The Hong Kong University of Science and Technology — **Hong Kong**
Bachelor of Engineering in Computer Science, with Minor in Business — *Sep. 2020 – Jun. 2024*

- First Class Honours (Top 10% of Class of 2024)
- Awards: Dean's List * 3 (2020 Fall/2023 Fall/2024 Spring)

National University of Singapore — **Singapore**
Exchange Program - School of Computing — *Jan. 2023 – May 2023*

PROFESSIONAL EXPERIENCE

D8AI Inc. — **Taipei, Taiwan**
Artifical Intelligence Engineer Intern — *Oct. 2024 – Present*

- Designed a Retrieval-Augmented Generation (RAG) system using microservices architecture and LangChain framework.
- Developed PDF parsing microservices capable of accurately handling and extracting data from images and tables.
- Built modular components as APIs using FastAPI and integrated them into the RAG system.

JPMorgan Chase & Co. — **Hong Kong**
Software Engineer Summer Analyst — *Jun. 2023 – Aug. 2023*

- Developed a dashboard to improve data visibility, enhance decision-making, and provide a better user experience.
- Improved trading chatbot features and leveraged sentiment analysis for news.
- Designed an all-in-one application that integrates internal service for employee usage.

Trend Micro Inc. — **Taipei, Taiwan**
Software Development Engineer Intern — *Jul. 2022 – Aug. 2022*

- Implemented a web crawler with REST API to collect data.
- Developed a customer case support tracking model using Convolutional Neural Networks (CNNs) to improve troubleshooting efficiency with over 80% accuracy.
- Deployed machine learning model on AWS EC2/ECR with Flask and Docker.

RESEARCH EXPERIENCE

Indoor Localization AI system
Independent Work (Supervisor: Prof. Gary Shueng Han CHAN) — *Feb. 2024 – May 2024*

- Conducted research on Data-driven and Senor fusion approaches for estimating indoor position and orientation.
- Implemented a Recurrent Neural Network (RNN) to process and analyze IMU-based motion data.
- Integrated a Kalman Filter to mitigate drift effects, achieving an absolute trajectory error of less than 0.5 meters, enhancing positioning accuracy.

Utilizing Large Language Models for News-Based Event-Driven Trading
Final Year Project (Supervisor: Prof. David Paul ROSSITER) — *May 2023 – May 2024*

- Developed an automated language model pipeline that collected news data forecasted price movements using Large Language Models and generated systematic trading strategies.
- Developed a web application using Flask that visualizes real-time price predictions and performance evaluation.
- Conducted live trading for one month that outperformed market indices.

SKILLS

Language: Mandarin (Native), English (Proficient)
Programming: Python, C++, JavaScript, SQL, MATLAB
Technologies/Frameworks: React, Flask, FastAPI, TensorFlow, PyTorch, AWS, Git, LangChain

LEADERSHIP / EXTRACURRICULAR

Google Developer Student Club HKUST Division, *Technical Core Team Lead* — 2022 – 2023
J.P. Morgan Code for Good (Hackathon), *Champion* — 2022
USThing (Student-Led Development Application), *Quality Assurance Officer* — 2021 – 2022
HKUST Fintech Mentorship Program, *Apprenticeship* — 2021 – 2022