Michael Hoon Yong Hau

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EDUCATION

Singapore University of Technology and Design
May 2026 – Dec. 2026
Master of Engineering (Research)
(Expected)

Singapore University of Technology and Design
Sep. 2022 – May 2026
Bachelor of Engineering, Engineering Systems and Design, Minor in Computer Science
Current GPA: 4.83/5.0

University of California, Berkeley
Jun. 2023 – Aug. 2023
Summer Exchange, Econometric Analysis
Berkeley, CA

COURSEWORK / CERTIFICATIONS

- Machine Learning
- Optimization
- Natural Language Processing
- Applied Econometrics
- Data Science
- Data & Business Analytics

PROJECTS

FinSight.AI | *Python, LangChain, Streamlit*
Mar. 2024 – Mar. 2024
- Industry project with Temasek Holdings (Financial Services Department): Large Language Model (LLM) enabled Financial Analysis Assistant, scalable with existing in-house data infrastructure.
- Summarizes multiple unstructured financial reports and key metrics with internal data, reducing man-hours by 80%. Able to retrieve metadata of reports and allow user to self-verify accuracy, and provide semantic score results.

LangChain PDF Querying Assistant | *Python, LangChain, Streamlit, Docker*
Sep. 2023 – Nov. 2023
- Developed a Querying System Chatbot via LangChain, for Question-Answering (QA) over PDFs.
- Feasible use cases include summarisation of large PDF articles in academia, and document management systems.
- Application hosted and deployed on Streamlit webapp, containerised using Docker.

EXPERIENCE

Natural Language Processing Engineer Intern
Mar. 2024 – Present
DSO National Laboratories
Singapore
- Building production-ready Retrieval Augmented Generation pipeline for ingesting of multiple unstructured documents, with open-sourced local LLMs via Ollama,
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Data Analyst
Jan. 2024 – Apr. 2024
Poh Tiong Choon Logistics Ltd.
Singapore
- Conducted Exploratory Data Analysis with Python on internal data for delivery driver utilisation. Identified key areas for improvement in scheduling and boosted driver utilisation rates by 20%.
- Developed end-to-end automated pipeline solution with bash scripting, integrating existing database with Python and Power BI.
- Created PowerBI Dashboard for key metrics and patterns on route analysis. Wrote internal report discussing findings

Data Analyst
Sep. 2022 – Jan. 2023
Aviation Studies Institute
Singapore
- Extracted key business insights for industry partner, International Air Transport Association (IATA), via Exploratory Data Analysis in R, SQL, and Python. Visualised data via Plotly and R.
- Developed correlation models for predictive analysis of internal air cargo demand data.
- Wrote an internal paper discussing findings, and presented to IATA and the Civil Aviation Authority of Singapore.

SKILLS

Languages: Python, R, SQL, Julia, LaTeX
Tools: Git/GitHub, Docker, Ollama, Streamlit, DBeaver, VS Code, Linux, WSL, Excel, Power BI
Libraries/Frameworks: LangChain, OpenAI API, Pandas, NumPy, Seaborn, scitkit-learn, Plotly, tidyverse (R)