

MICHAEL HOON YONG HAU

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EDUCATION

Singapore University of Technology and Design

Master of Engineering (Research)

May 2026 – Dec. 2026
(Expected)

Singapore University of Technology and Design

Bachelor of Engineering, Engineering Systems and Design, Minor in Computer Science

Sep. 2022 – May 2026
Current GPA: 4.83/5.0

University of California, Berkeley

Summer Exchange, Econometrics

Jun. 2023 – Aug. 2023
Berkeley, CA

COURSEWORK / CERTIFICATIONS

- Machine Learning
- Deep Learning
- Natural Language Processing
- Applied Econometrics
- Data Science / Business Analytics
- Mathematical Modelling

SKILLS

Languages: Python, R, SQL, Julia, \LaTeX

Tools: Git/GitHub, Docker, Streamlit, DBeaver, VS Code, Vim

Libraries/Frameworks: LangChain, OpenAI API, Pandas, NumPy, Plotly, tidyverse (R)

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

Undergraduate Research Assistant

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.

Undergraduate Research Assistant

Oct. 2022 – Dec. 2023

Singapore University of Technology and Design

Singapore

- Explored computational modelling of materials via the Particle-In-Cell (PIC) and Finite-Difference-Time-Domain (FDTD) methods, and conducted qualitative analysis on resulting spectra.
- Research showed similar scattering patterns and Lorentzian behaviour, and will contribute to further studies in simulating optoelectronic devices.
- Worked with open-source code developed in Python using the MEEP library, and PIC algorithm developed via Epoch.

EXTRACURRICULAR

SUTD Organisation of Autonomous Robotics

Mar. 2023 – Feb. 2024

Secretary

Singapore University of Technology and Design

- Organised a school-wide robotics competition (RoboClash 2024), attracting over 80 participants and 15 teams.
- Collaborated with school administration on all administrative matters related to the club, conducted school-wide workshops to inspire robotics technology among students.