HA THU TRAN

YEAR 3 COMPUTER SCIENCE / QUANTITATIVE FINANCE UNDERGRADUATE @ NUS

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EXPERIENCE

Housing Development Board (HDB) • Data Analysis & Machine Learning Intern

May 2024 - Present

Utilized machine learning, data analysis and software engineering to drive business processes in HDB.

CareforWe (Healthtech Startup) • Software Engineer

Dec 2023 - Present

Managed and led both front-end and back-end development of a video hosting website.

National University of Singapore • Teaching Assistant

Aug 2023 - Present

- Taught programming concepts, JavaScript, and Python to students through self-prepared tutorial sessions.
- Rated 4.8/5.0 in the student feedback exercise (Department average: 4.3).

Eastspring Investments • Data Engineering Intern

May 2023 - Aug 2023

- Maintained production and raw tables for the company's database using Python and SQL.
- Optimized and helped develop an Artificial Intelligence chatbot using ChatGPT's API.

A*STAR Research • Artificial Intelligence Intern

Dec 2019 - Jan 2020

Programmed and trained a working robot arm capable of image recognition using Python and OpenCV.

EDUCATION

Bachelor of Computing – Computer Science (Honors)

Aug 2022 - May 2026

National University of Singapore (NUS)

GPA: 4.7 / 5.0 (First Class Honors)

- Invited to work for CVWO and become a teaching assistant for 3 programming modules.
- Part of: Freshman Camp 2023, RAG 2023, FLAG 2023, Tembusu photography club EXCO, NUS Origami Club EXCO, Lifehack 2024 hackathon.
- Residential Assistant for AY24/25 at UTown Residences.

SKILLS & TECH STACKS

- Programming Languages: Python Java Go C C++ JavaScript TypeScript
- Frontend: HTML CSS ReactJS Tailwind CSS
- Backend & Databases: Fiber (with Go) express is REST APIs AWS Cloud PostgreSQL MySQL Microsoft SQL Server

ACHIEVEMENTS

- 1st runner up for the SMU Hack for Cities (Quantum Computing) Hackathon 2023.
- Dean's List and Academic Excellence Awardee in 2022.
- SAFRA Photographer of the Year 2022 Honorable Mention.

PROJECTS

Personal Website: https://www.tranhathu.com/

Used React, HTML, CSS, and JavaScript to create a website that showcases all my work and experiences.

Quantitative Trading Toolkit: https://github.com/oeggy03/quant-retrieving-financial-data

• Used <u>Python</u> and <u>MATLAB</u> to create a set of functions for stock data scraping, monitoring, backtesting and calculating of ratios.

Graph for Stock Price Tracking: https://github.com/oeggy03/stock-graph-jpmc

- Used React, TypeScript, JPMorgan's Perspective, and Python to scrape data from Yahoo finance and visualize stock data.
- Adapted from JPMorgan Chase's Software Engineering forage program.

Task-tracking chatbot: https://oeggy03.github.io/ip/

Used <u>Java</u>, <u>JavaFX</u> while utilizing <u>OOP</u> to create the bot and <u>Git</u> and <u>GitHub</u> for version control.

Telegram Bot with image recognition capabilities: https://oeggy03.github.io/TeleAI/

• Used <u>Python</u>, <u>TensorFlow</u> and <u>OpenCV</u> to train the model on the CIFAR10 dataset, and the <u>telegram API</u>.

BUDDY4GOOD Website (Hack 4 Good Hackathon Project): https://devpost.com/software/buddy4good

- This website pairs up the able-bodied and those with disabilities for activities to combat stigmatization.
- Used React, HTML, CSS, JavaScript for the frontend, Go, REST APIs for the backend and MySQL for the database.

Forum Website: https://devpost.com/software/foroom

Used <u>React</u>, for the frontend, <u>Go, REST APIs</u> for the backend, <u>MySQL</u> for the database and <u>jwt tokens</u> and <u>bcrypt</u> for secure authentication.

Telegram Bot for food wastage reduction (Lifehack 2022 Hackathon Project): https://devpost.com/software/kalilinux

• Used Python, SQLite, telegram API and google maps API to design a telegram bot for people to share leftover ingredients and food.

Trash Clearing Robot Arm: https://sites.google.com/view/tjc-wow-2020/home/astar-scei/tran-ha-thu

• Used Python and OpenCV to train an AI model to recognize and pick up trash with a UR5 robot arm.