Daniel Tsiang

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EDUCATION

Harvard University   **Remote**
CS50ai: Introduction to Artificial Intelligence with Python   June 2021 – Present

- Created AI programs to play Minesweeper, Tic-Tac-Toe and Nim games optimally.
- Trained Machine Learning models to recognise traffic signs and predict online purchases completion.
- Coded AI programs to generate crossword puzzles, estimate genetic inheritance likelihood, rank webpages by importance, solve logic puzzles and determine degrees of separation.

Harvard University   **Remote**
CS50x: Introduction to Computer Science (<u>certificate</u>)   Jan 2021 – Mar 2021

- Wrote Python code to run simulations, solve cash problems, scan and analyse various data sets.
- Created scripts in C to encrypt text, recover data after deletion & transform images. I also simulated elections, genetic inheritance and implemented a spell checker using a hash table.

Imperial College London   **London**
Master of Engineering in Chemical with Nuclear Engineering (First-Class)   Oct 2014 – Jun 2018

- Led a team of 4 to design a reactor model using MATLAB and to mitigate upstream disturbances.
- Collaborated with a team of 10 to design and financially plan an aspartame (sweetener) production plant starting from raw ingredients. I developed the safety and control system for the plant.

WORK EXPERIENCE

Starling Bank   **London**
Software Engineer   Aug 2021 – Present

- Developed the backend for Python web apps which serve image recognition Machine Learning models, run in Docker containers orchestrated by Kubernetes.

AWE   **Reading**
Nuclear Safety Engineer   Sep 2018 – Aug 2021

- Authored and peer-reviewed safety documentation, ensuring the quality meets high nuclear standards.
- Analysed risks and provided recommendations to improve hazard management.

PROJECTS

Stock Simulator *(<u>demo</u>)*   Apr 2021

- Designed & built a RESTful web app using Python with Flask's MVC framework, connected to a SQL database and served by Gunicorn.
- The web app simulates managing portfolios of stocks, using real stocks' prices by querying an API.
- Crafted a user-friendly interface utilising the Bootstrap CSS framework and HTML.
- Implemented JavaScript with AJAX calls to update data display and validate data in real time.
- Wrote Python scripts to query an API to acquire financial data and manipulate it into JSON for display.

SKILLS

- **Programming Languages:** Python, JavaScript (plus CSS & HTML), C, SQL
- **Programming Frameworks / Tools:** Flask, Bootstrap, jQuery, Git
- **Spoken Languages:** English (Native), Cantonese (Proficient), Mandarin (Conversational)