

# Daniel Tsiang

Surrey Quays, London, SE16 7FH | +447533940356 | dan\_tsiang@hotmail.co.uk |  
<https://danieltsiang.github.io>

## EDUCATION

---

### Harvard University

Remote

*CS50ai: Introduction to Artificial Intelligence with Python*

June 2021 – Present

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

### Harvard University

Remote

*CS50x: Introduction to Computer Science (certificate)*

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 (demo)

Apr 2021

- Designed and built a web app using Python with Flask's MVC framework, connected to a SQL database.
- 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)