Daniel Tsiang

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WORK EXPERIENCE

Starling Bank   **London**

Software Engineer   Aug 2021 – Present

- Developed the backend and CI tests for Python apps which serve image recognition ML models.
- Deployed ML models into production by running Python apps in Docker containers and orchestrating them with Kubernetes. Created Java classes in the banking platform to consume models via REST APIs.
- Trained and deployed ML models on GCP Vertex AI.
- Set up error monitoring to track and quickly resolve bugs, thus maintaining healthy apps in production.
- Optimised Kubernetes resource allocation and monitored pods to achieve efficient performance of containers serving ML models.

PROJECTS

Traffic Sign Classifier ([demo](#))   Jan 2022

- Created a single-page web app serving a machine learning model I trained which classifies traffic signs.
- Orchestrated Flask, NGINX and TensorFlow Serving Docker containers using Docker Compose.

Stock Simulator ([demo](#))   Apr 2021

- Designed and 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.
- AJAX calls are made from JavaScript to update data displays and validate data in real time.

SKILLS

- **Languages:** Python, Java, JavaScript (plus CSS & HTML), SQL, C
- **Frameworks / Tools:** Docker, GCP, AWS, Flask, TensorFlow, Git, Kubernetes
- **Courses:** Google Cloud Big Data and Machine Learning ([certificate](#))

EDUCATION

Harvard University   **Remote**

HarvardX CS50ai & CS50x: Jan 2021 – Dec 2021
Computer Science with Artificial Intelligence using Python ([certificate](#))

- 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.
- Wrote Natural Language Processing programs to answer questions and parse sentences.
- Coded AI programs to generate crossword puzzles, estimate genetic inheritance likelihood, rank webpages by importance, solve logic puzzles and determine degrees of separation.
- Created scripts in C e.g. to transform images 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.