

Daniel Tsiang

London, UK

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Experience

Starling Bank

Software Engineer

London

Aug 2021 – Present

- Deployed GCP's Gemini LLM into production to optimise workflows extracting information from images and summarising customer call transcripts. This eliminated hundreds of hours of manual human labour every week.
- Integrated Google AI APIs directly into the Java banking platform to boost customer operations efficiencies and detect fraud.
- Engineered the backend, unit & integration tests for Python apps and packages serving Machine Learning (ML) models.
- Deployed ML models into production by running microservices in Docker containers and orchestrating them with Kubernetes.
- Created Java-based simulator to put ML services under constant load, resolving performance bottlenecks and validating accuracy of responses.
- Created serverless event-driven AWS Lambda to sync files between S3 and Cloud Storage using keyless cross-cloud auth.
- Automated data ingestion & processing pipelines by writing Bash CI/CD pipelines to create templates for GCP Dataflow jobs.
- Implemented Prometheus metrics and created Grafana dashboards to monitor app and ML model performances, allowing detection of model drift and adhering to MLOps best practices.
- Established automated CI workflows to scan code for security vulnerabilities, with GitHub and Slack integrations for alerts.

Projects

Traffic Sign Classifier ([demo](#))

Jan 2022

- Created an end-to-end machine learning solution, from model training to web deployment, for classifying road traffic signs.
- Orchestrated Flask, NGINX and TensorFlow Serving Docker containers using Docker Compose to deploy single-page web app.

Stock Simulator ([demo](#))

Apr 2021

- Engineered a real-time stock portfolio simulation web app, leveraging live stock price data via API integration.
- RESTful web app built using Python with Flask's MVC framework, connected to a SQL database and served by Gunicorn.
- Designed UI to update data displays and validate data in real time by making AJAX calls from JavaScript.

Education

Harvard University

HarvardX CS50ai & CS50x: Computer Science with Artificial Intelligence using Python

Remote

Jan 2021 – Dec 2021

- Completed intensive courses covering fundamental computer science concepts and advanced AI techniques.
- Created AI programs to play Minesweeper, Tic-Tac-Toe and Nim games optimally.
- Developed AI programs to generate crossword puzzles, rank webpages by importance and solve logic puzzles.

Imperial College London

Master of Engineering in Chemical with Nuclear Engineering (First-Class)

London

Oct 2014 – Jun 2018

- Developed strong foundation in numerical computing and algorithm development for solving complex engineering problems.

Skills

Programming	Python, Java, JavaScript, SQL, C, Bash
Libraries	Flask, TensorFlow, Scikit-learn, NumPy, Pandas, PyTest
Cloud & DevOps	GCP, AWS, Docker, Terraform, Grafana, Prometheus, Kubernetes, Git
Data Engineering	Dataflow (Apache Beam), KubeFlow
Databases	BigQuery, PostgreSQL, SQLite

Certifications

2022 **Google Cloud Big Data and Machine Learning**, Coursera ([certificate](#))