London

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ISAAC HARRIS-HOLT

https://github.com/isaacharrisholt

https://ihh.dev

EDUCATION

London   **Imperial College London**   **Oct 2020 – Feb 2022**
- **Degree:** Chemical Engineering, MEng
- **Grade:** 1st (First Year)

EMPLOYMENT

Software Engineer   **Urban Jungle Insurance**   **Feb 2022 - Present**

Data-focused Engineer at InsurTech Disruptor
- Architected and developed the Kubernetes deployment of an events-based microservice backend.
- Engineered orchestrated data pipelines with Dagster.
- Reduced external report generation time from 11 hours to 30 seconds by migrating from Python to SQL with dbt and BigQuery.
- Improved database microservice efficiency by up to 80% by optimising SQLAlchemy queries.
- Designed and deployed backend microservices for large-scale data streaming.

Leveraged knowledge of Python, SQL, Docker, Kubernetes, AWS, Google Cloud Platform, RabbitMQ.

Research Engineer Intern   **Hadean Supercomputing**   **July 2021 – Nov 2021**

Agent-Based COVID-19 Lung Model (solo project)
- Extracted and visualised data from agent-based model for scientific analysis and generated faux CT scans from cell data.
- Reduced model runtime by 83% through bug fixes and optimisations to entity system.

Leveraged knowledge of C++, agent-based modelling, Python, `matplotlib`, Git and Go.

SOFTWARE PROJECTS

Personal Website: https://ihh.dev (read more on GitHub)

A microservice architecture with a SvelteKit frontend and three backend services.
- Created backend HTTP microservices written in Go and Python.
- Learned SvelteKit and JavaScript to develop my first reactive frontend application.
- Deployed using Google Cloud App Engine and Pub/Sub.
- Utilised: Python, `fastapi`, Go, Svelte, JavaScript, CockroachDB.

QIF File Interface Package: https://pypi.org/project/quiffen

An open-source Python package for parsing Quicken Interchange Format (QIF) files.
- Developed an algorithm for restructuring and exporting QIF data to CSV and `DataFrame` objects.
- Utilised: Python, TDD, OOP, PyPI, `setuptools`, `unittest`, `pandas`.

Web Scraper for Sports Arbitrage: https://github.com/isaacharrisholt/vorn-surebet-finder

A web scraping program to acquire sports betting data to find sure bets with guaranteed profit.
- Devised an algorithm to calculate which bets are 'sure', the relevant stakes and profit margins.
- Utilised: Python, Selenium, `pandas`, `multiprocessing`.

SKILLS

Software: *(fluent)*: Python, Git, SQL, Docker *(proficient)*: Go, HTML/CSS, C++ *(familiar)*: JavaScript

PERSONAL SUCCESSES AND INTERESTS

- Had 13 tech articles published in TheINQUIRER at age 16.
- Enjoy writing about tech, finance, and the environment on my blog.