# Travis P. Hesketh

travis@hesketh.scot
+44 7413 363502
@thesketh

*Software Developer / Data Engineer*

Senior developer with strengths in data engineering and backend API development. Chemistry graduate, former computational chemistry researcher. Currently working for a consultancy in the healthcare sector. Interested in continuing to build a better world. Currently based in London (England).

## Skills

- Software development using functional and object-oriented paradigms
- Architecture and implementation of cloud workloads (primarily using AWS)
- Data manipulation and batch pipelining (primarily using Python/SQL/Spark)
- Async/sync API development (primarily using FastAPI/Flask)

## Technologies

- **Languages**: Python, SQL (some Lua & TypeScript, basic Rust)
- **Frameworks**: PySpark, pandas, FastAPI, numpy, Flask, pydantic (some polars, sklearn)
- **Clouds**: AWS (some GCP & Azure)
- **Databases**: SQLite, DuckDB, Postgres, SQL Server (some Mongo & Dynamo)
- **Testing/Documentation**: pytest, unittest, behave, pdoc

## Education

**Chemistry (Professional Experience), *University of Strathclyde*, 2014 – 2018**
Bachelor of Science, First Class Honours

## Employment

**Senior Software Developer, *Aire Logic Ltd.*, July 2021 – Present**
**Software Developer, *Aire Logic Ltd.*, July 2020 – July 2021**

Employed as backend Python engineer working as a consultant in the healthcare sector.

- Heavily involved in recruitment: interviewing and marking technical assessments
- Key technical contributor to several high-valued public sector contract bids

**Data Engineer (Contract), *NHS Digital (Burden Reduction Team)*, July 2022 – Present**

Worked as senior data engineer on a project to reduce supplier workload: a team of three experienced engineers building an alpha to replace 15 ageing submission portals with a single, config-driven tool. On contract from Aire Logic.

- Worked on design and implementation of the initial tool, which combined the customer's existing tech stack (Python/Spark/SQL) with a new pydantic frontend to perform complex, but highly configurable validations and provide intuitive feedback.
- Implemented 'transformation engine' for the tool. This was able to filter, join, and modify data passing through the portal using SQL expressions, Python code, and familiar business language (parameterised rules).
- Later, expanded the tool to handle complex, nested data structures (and tooling to represent those more complex structures in config) to handle additional datasets.

**Data Engineer (Contract), *NHS Digital (Vaccinations Task Force)*, Sept. 2021 – July 2022**

Working as senior, then lead data engineer on England's vaccination data pipelines, implemented in Databricks on AWS. This team manages the flow of data from vaccination suppliers to primary care systems and central bodies. On contract from Aire Logic.

- Built more generic components to split more complex workflows into more modular, testable stages.
- Mentored junior team members, working to spread knowledge and reduce siloing.
- Strived to improve stability of the pipelines without losing velocity. Expanded testing (integration and unit) and the use of static analysis tools (mypy, pylint).

**Data Engineer (Contract), *NHS Digital (Open Data and Dashboards)*, Sept. 2020 – Sept. 2021**

Worked in data reporting for COVID statistics, primarily supplying data to a series of public and private Tableau dashboards. On contract from Aire Logic.

- Supported critical national-scale dashboards used by the Department of Health and Social Care to monitor pandemic progression and prioritise resource allocation.
- Automated manual data science QA checks, saving 14 person-hours of work weekly.
- Planned, instigated, and implemented a cloud migration for key data pipelines, increasing security & observability, and decreasing cost & complexity.
- Solved blocking deployment issues (performance, caching) for the Coronavirus in Your Area dashboard.

**Postgraduate Researcher, *University of Strathclyde*, Oct. 2018 – June 2020**

Conducted PhD-level research in computational chemistry using molecular dynamics to investigate bioinspired materials. Made extensive use of Python workflows for simulation/analysis; mentored Masters students (teaching Linux/Python); collaborated with a New York-based group.

## Interests

Enjoy being around and meeting new people, keeping up to date with current events, playing guitar, and sudoku puzzles. Vinyl collector, typography fan, and indoor climber. Terrible chess player.