Travis P. Hesketh

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@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.

Skills

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

Technologies

- *Languages*: **Python**, **SQL**, Lua, Rust
- *Frameworks*: **Spark/PySpark**, **pandas, FastAPI**, **numpy**, Flask, scikit-learn, matplotlib
- *Clouds*: AWS, GCP, Azure
- *Databases*: **SQLite/DuckDB/Postgres**, MongoDB, DynamoDB
- *Testing/Documentation:* **pytest**, unittest, pydoc

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 prospective staff and evaluating technical assessments
- Key technical contributor to public sector contract bids on the Digital Capability for Health framework.

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

Working as a 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.

- Mentoring junior team members, working to spread knowledge and avoid siloing.
- Building more generic pipelines, splitting complex workflows into modular, testable components.
- Working to expand testing and the use of static analysis tools (mypy, pylint).
- Evangelising for the use of ISO 8601/RFC 3339

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.

Industrial Placement Student, *Optibrium Ltd.*, July 2017 – July 2018

Worked in cheminformatics as part of the computational chemistry team. Developed machine learning models to predict biological assay results, which are currently in use in the pharmaceutical industry.

Interests

Big fan of film and TV. Interested in open source software. 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.

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