

Work

Bulb Energy, London - Senior Developer

2019 -

First full-time Python developer on Bulb's international team. Over a fairly short period, the team successfully built services to handle billing, account management, interaction with external energy providers/payment processors, statement generation/scheduling, along with internal tooling for energy specialists.

Services were all Flask/FastAPI services (with automated APISpec docs) running with SQLAlchemy on Postgres DBs. They communicate via REST/Google PubSub, are all deployed on Kubernetes running on GCP with assorted logging/monitoring solutions in place. Lasting contributions to the team include:

- Codebase with a simple, consistent, modern, well-typed approach and style.
- Comprehensive testing - from low level contract tests up to multi-service integration tests.
- Performant and flexible database design using some advanced locking/indexing techniques.
- Fostered a friendly, engaged and collaborative team dynamic, particularly with new starters.

Spent 6 months working with Bulb's billing team across various backend/frontend TypeScript services with the aim of reducing customer debt.

YouView, London - Python Developer

2016 - 2019

Built, refactored and maintained the reporting service, APIs and infrastructure for the test-automation team; the team ran constant functional, memory and timing tests on ≈ 200 set top boxes, generating millions of results.

Worked on API design, database design, building interactive data collation, search and graphing capabilities. Introduced zero-downtime rollout to the reporting service (Ansible). Collaborated on TypeScript Selenium testing with the YouView front-end team. Worked closely with graduate scheme. Implemented machine-learning driven pipeline for test failure classification (scikit-learn).

Thales, London - Software Engineer

2014 - 2016

Extended, maintained and documented an internal web based (LAMP stack) tool that managed hardware installation data. Also worked on the communications network infrastructure for the London Underground where responsibilities included hardware design, liaising with London Underground and contractors, and developing document management and retrieval software.

Bugudon Cola Ltd. Awaham, Ghana - Mechanical Engineer/CAD Technician

2013

Spent first month in a small team constructing equipment to increase the running capacity of the mine. Then moved into a CAD based/supervisory role designing components and logistics to install the upgraded machinery into an existing structure.

Education

University of Bristol

2009 - 2013

Upper Second Class (2:1) MEng Mechanical Engineering Degree. Studied: Systems and Control, Robotics, Smart Structures, Fluid Dynamics, Advanced Dynamics. Led a final year group project designing and building a bio-inspired electro-mechanical image stabilisation system (Arduino with C/Matlab).

Other

Software - Hobby projects have included various small Python/JS libraries & projects, blog pieces, educational minimal implementations of existing libraries - see [here](#) for more. Things I have studied/dipped into include relational theory, probabilistic methods, interpreters.

Interests - Cello (Grade 8 ABRSM, University of Bristol Chamber Orchestra), Double Bass (in jazz groups), electronic music (Reason/Ableton), Climbing, Hiking, Cycling, 5-a-side, Literature.