

EMPLOYMENT

ITRS Opsview

Jan 2024 – Present, Reading

Full Stack Software Engineer

- Developing features for Opsview (infrastructure monitoring software) using async Python, Perl (legacy codebase) and Angular.
- Designing new user experiences and improving existing ones based on customer feedback.

PricewaterhouseCoopers

Sep 2018 – Aug 2023, London & Birmingham

Senior Associate Software Engineer (ML-Powered Document Search Web App, Full-Time)

- Shipping multi-tenancy functionality for the web app to speed up client onboarding, using PostgreSQL and Python.
- Leading a re-write of the Flask-based frontend in React.
- Improving developer onboarding and setup processes for the web app by re-thinking its launcher, structure and configuration.

Software Engineer (Data Migration, Year Placement 2021 – 2022)

- Writing software to migrate client engagement data from Lotus Notes (PwC's old system of record) to AODocs, using Python and Windows COM.
- Interviewing applicants to work on the codebase and continue running live data migrations throughout the programme.

Consultant (Change Management and Logistics, Summer Placement 2019)

- Assisting, in Rotterdam and Katowice, Upfield's migration from the SAP system of their former owner, Unilever, to a bespoke one.
- Running change management sessions involving the client and other consultancy firms.

PROJECTS

🔗 **Today in the UK (Python, Static Site) (2023):** daily static site generator, displaying recent parliamentary bills next to top news articles.

🔗 **WebRTC Chat App (TypeScript, React) (2023):** peer-to-peer, stateless chat app built using WebRTC and deployed using fly.io.

🔗 **Security analysis of nRF52 and CC254x chips (C, Microcontrollers, Hardware Security) (2021-2022):** university dissertation on the application of voltage glitches for bypassing microcontroller code readout protection.

🔗 **DOS Platformer Demo (C) (2021):** game demo made in Turbo C in DOSBox, for fun.

🔗 **Multiplayer Tank Warfare Game (Java, OpenGL) (2020):** renderer, audio engine, component system and parts of the physics engine (collisions and projectile motion) for a game during a team project module at university.

🔗 **Fact-Checking Twitter Bot (Python, Heroku) (2020):** Twitter bot for the EUVsVirus hackathon to fact-check tweeted claims.

🔗 **Markdown Editor (C++, Qt) (2018):** markdown editor for my A Level Computer Science coursework and to teach myself C++ and Qt.

EDUCATION

The University of Birmingham

2018 – 2022

BSc (Hons) Computer Science (1st, 80%)

- **Dissertation field:** Security of embedded devices, voltage glitches on microcontrollers. Specifically, crowbar voltage glitches on nRF52 and CC23xx/24xx microcontrollers.
- Degree sponsored by PwC, with summer work placements and a year in industry.
- Committee member of the Computer Science Society in first and second year, and of the Photographic Society in fourth year.

The Willink School, Reading

2018

A Levels: Computer Science (A), Physics (A), Mathematics (A)*

SKILLS

Languages and Libraries: Python, TypeScript, Java, C, React, Angular, HTML & CSS

Tools: Linux, Vim, Git, SQL Databases, Azure DevOps & Pipelines, GitHub Actions, Jira, Gerrit, Google Cloud Platform, Microsoft Azure