WILLIAM HENDERSON

william@whenderson.dev ◇ Cambridge, UK
https://whenderson.dev ◇ https://github.com/w-henderson

SUMMARY

A motivated penultimate-year Computer Science student at the University of Cambridge with a passion for solving problems by developing efficient, robust and maintainable software, built with performance in mind. Looking to develop my skills in a challenging and rewarding role where every millisecond counts.

SKILLS

Programming Languages	Rust, TypeScript, C, Python, OCaml
Technologies	React, Git, Linux, Docker, SQL, AWS, GCP, LaTeX
Other Skills	Technical Writing, Collaborative Working, Documentation

EDUCATION

University of Cambridge October 2022 - Present
B.A. (Hons) Computer Science (penultimate year, will graduate in 2025)

- Year 1: First class (placing 10th out of 140 students) *(provisional)*
- Explored courses including Algorithms, Operating Systems, and Databases, coming 1st/120 in the latter
- Orchestrated the successful and timely completion of a group project to research, design, build and present a mobile app, which received very positive feedback from the examiners and our peers

Exeter Mathematics School September 2020 - June 2022

- A*A*A*A* at A-Level, Exeter Mathematics Certificate (with University of Exeter)
- Computer Science Award (2022) for the best academic performance in Computer Science
- Oxford University Computing Challenge (2022, Elite group, 11th place in the UK)

PROFESSIONAL EXPERIENCE

Nutanix June 2023 - September 2023
Software Engineering Intern, Acropolis Hypervisor *Cambridge, UK*

- Defined and implemented a new device live migration protocol as part of the vNVMe project, which aims to greatly reduce the latency of virtualised NVMe devices by enabling poll-based I/O.
- Liaised with the QEMU open-source community to upstream the new protocol.
- Gained valuable insight into virtualisation, distributed systems, and the software development lifecycle.

The Posbury St Francis Trust May 2021 - Present
Webmaster *Remote / Exeter, UK*

- Worked closely with the Trustees to design, develop, and maintain the Trust's new website, facilitating the awarding of more than £15,000 in grants in 2021 and £30,000 in 2022.

PERSONAL PROJECTS

Humphrey June 2021 - Present
https://github.com/w-henderson/Humphrey

- Built an open-source HTTP server supporting WebSocket and JSON in Rust with no core dependencies.
- Surpassed the performance of web servers Apache and NGINX in benchmarks by more than 2x.
- Wrote comprehensive documentation and tests to ensure maintainability and reliability.

Equion April 2022 - August 2022
https://github.com/w-henderson/Equion

- Developed a mathematics-focussed online chat platform with support for LaTeX and Markdown.
- Built the front-end using React, TypeScript and Tauri, connecting to the back-end via WebSocket.
- Used Rust, Humphrey, MySQL and PeerJS to build a robust back-end, deployed to the cloud using Docker.

HackX Cambridge: Project Headlights November 2022
https://whenderson.dev/blog/predict-the-future

- Developed a platform for training the next superforecasters to better predict the future, using historical data.
- Engineered a high-performance back-end in Rust, able to search an extensive dataset 250k times a second.
- Awarded the Curie Prize for Technical Skill and 3rd place overall by the Cambridge Existential Risks Initiative.

INTERESTS

In my free time, I enjoy working on my open-source personal projects, writing blog posts about a variety of technical and non-technical topics, travelling, and playing competitive chess.