

University of Cambridge graduate in Computer science with interests in low-level systems engineering and specialisations in distributed software, operating systems, and hardware emulation. Seeking an entry-level role to develop skills in embedded software, hardware and security.

Education

2019 – 2022	2.ii – BA in computer science from The University of Cambridge. Specialisations in low-level software development, operating systems, multiprocessor programming, and hardware emulation.
2017 – 2019	A-level studies at Sir John Deane’s Sixth Form College achieving the following grades: A* – Mathematics A* – Further Mathematics A* – Physics A* – Computer Science

Work Experience

x86 to Arm Dynamic Binary Translator _____ 2021 – 2022

I designed and developed a project that runs x86 instruction set binaries on Arm instruction set processors through the creation of a dynamic binary translating emulator. This was my undergraduate dissertation project and required the use of scientific research skills as well as professional development practices to guarantee the successful delivery of the project.

C2C Capture the Flag _____ 2021

I was put into a team with students from around the world to compete in a series of cybersecurity challenges. From this I improved my teamwork and cybersecurity skills

Galton Boards Group Project _____ 2020

I worked in a group to develop a tool for visualising compound probability distributions for our client Boeing. Within my team, I worked on the graphics subsystem for the tool, converting the abstract representations of the simulated distributions to concrete visuals using OpenGL.

d3t Ltd. Summer Internship _____ 2020

Worked on porting a graphics library between platforms using Visual Studio and C++. Including lots of work with the C++ preprocessor and Visual Studio configuration.

Simple Kernel for Raspberry Pi _____ 2018

From this project I learned the basics of keyboard input as well as graphics drivers for operating systems. I also learned how functions calls are made at the machine code level.

Goblin Gaming Ltd. _____ 2016 – 2019

I worked as a retail and warehouse worker at a board games shop, running gaming events for the local gaming community. From this job I built my teamwork skills as well as interpersonal communication.

Skills

Programming Languages and API’s:

C & C++, Java, Python, LaTeX, Vulkan, OpenGL, OCaml, Prolog, and SQLite.

Development tools:

Git, Linux & Unix, Visual Studio, IntelliJ, Perforce.

Interests

Ultimate Frisbee _____

I was part of the Churchill College Ultimate Frisbee team where we competed in the inter-college league.

Electronics _____

I enjoy hobbyist level electronics, particularly the building of keyboards. I have hand-soldered multiple ergonomic keyboards in the search for one which alleviates potential problems with RSI, since I will likely spend most of my career using a keyboard. This also involves the customisation and flashing of firmware onto ATMEL MEGA32U4 based microcontrollers.

Operating Systems _____

I’ve been a regular user of various Linux distributions on my desktop including Ubuntu, Debian, and Arch. I enjoy trying to minimise the software running on my system and extending the system with simple, command-line utilities to make my workflow more efficient.