


EDUCATION

- **BSc Computer Science** – University College London – 2019-2022
Second-year grade average: 82.3%
 - Built a Tetris bot in Python which can reliably keep itself alive long enough to reach a 1000 blocks limit, and scored 3rd place in the 140 person class.
 - Designed and wrote a system specification for a hypothetical good delivery service for vulnerable people during COVID, matching requests with volunteers with an efficient algorithm. Received a top submission award.
 - Led a 3-person team on implementing a bash-like shell in Java, with piping, substitution, glob expansion, and 97% test coverage. Built an [online sandbox](#) for the shell with Docker, Rust and Xterm.js (not part of the coursework).
 - Worked with Unity and the Alexa voice API as part of an industry project.
- **A-Level** – (Shenzhen, China) Nanshan Chinese International College – 2017-2019
Math, Further Math, Physics and Economics – A*A*A*A*





WORK EXPERIENCE

- **Technology Intern** – Marshall Wace LLP – Jul-Aug 2021
 - Designed and built a dashboard for developers to search for and check the build and deploy status of their projects.
 - Used React (front-end), Python/fastapi (backend) and [Redisgraph](#) (a graph database based on Redis which supports [Cypher](#)). Used APIs to read information from different services including Kubernetes. Used [Prometheus](#) to export metrics which helped debug performance issues.
 - Worked in a team with 2 other interns. Delivered a project presentation and demo to the whole of the Technology division, and incorporated developer feedback. Wrote documentation for extending the system to add other service integrations.
- (since June 2021) **Lead Developer** – CORE Data Systems Ltd – Jul 2020-...-present (part-time)
 - Educational game development for GCSE Physics/Chemistry/Biology.
 - Familiarized with and worked on various aspect of an existing PHP + React project of moderate size, ensuring cross-browser compatibility and implementing additional features.
 - Created a payment form which integrates with PayPal to replace the existing manual invoicing.
 - Helped onboard new developers and reviewed their code. Promoted officially to Lead Developer.

COMPETITION

- Showcode + ARM (sponsor) – VarsityCode 2021/22 – 4th Nov 2021
 - Won second place in an algorithm contest of 300+ people, rewarded with £200 Amazon gift card.
- HIRED + Tesco (sponsor) – UK Virtual Coding Challenge – 7th Jul 2020
 - Won first place in an algorithm contest of 180 people, rewarded with £1,000 Tesco gift card.
- Facebook – Hack-a-project – 29th Feb 2020
 - Team of 4 people won second-place (against 8 other teams)
 - Designed a basic React & Nodejs App () for bringing people who want to watch the same movie together.

PERSONAL PROJECTS

- **Bellclone** (): A re-make of the old Winterbells game built with Rust (wasm) and OpenGL – Sept 2021
- **Leafvote** (): A real-time live voting solution built with React and NodeJS for my high school – Aug 2018
 - Uses MongoDB, WebSocket for lower latency, and LaTeX for voting ticket generation.
 - Successfully handled 300+ voters at once.
- **go-ecbpass** (): A stateless, deterministic password manager built in Go – Oct 2018
- **paper.sc** (): A past paper search engine built with React, NodeJS and Elasticsearch – 2016-2019
 - Average of ~9000 daily searches over 365 days (2019-2020); recommended by a number of teachers.
 - Custom PDF viewer with automatic cross-reference to solution sheets built with PDF.js.
- **Technical blog**: Some posts on security.