(Aug 2021) Second year Computer Science undergraduate at duCL

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EDUCATION

• BSc Computer Science — University College London — 2019-2022

Notable coursework (able to provide code upon request):

- A journey planner for the →London rail network (tube & others) entirely in C.
 - * Shows paths with least station, least interchange or paths that avoid certain fare zones.
- 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.
- 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 release 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.
- Software Developer Lead Developer CORE Data Systems Ltd Jul 2020-...-present (part-time)
 - Educational game development for GCSE Physics/Chemistry/Biology.
 - Debugged a large (200 kLOC) React project to make sure everything works on all major browsers.
 - Implemented new requirements in the existing PHP (Symfony) based system.
 - * Learned PHP and Symfony concepts on the go.

COMPETITION

- HIRED UK Virtual Coding Challenge 7th Jul 2020
 - Won first place in an algorithm contest of 180 people.
 - Rewarded with £1,000 Tesco (sponsor) 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.

SKILLS

- Languages: (primary) Python, JavaScript/TypeScript, Rust; (fluent) C++, Java
- Web development: React, Svelte, Plain CSS & SCSS.
- Backend: NodeJS (Express), Python FastAPI, PostgreSQL, Redis.
- Linux (scripting, programming, server administration), Git, Docker, Kubernetes
- · Security (web & native) & Basic cryptography.