Lucas Kimber

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I am a driven and proactive software developer, currently improving my skills through my MSc at Imperial. I find performant and scalable systems particularly interesting, and have explored these areas throughout my studies. I have a best-tool-for-the-job mentality, and I'm used to researching and bringing complex theory into software. My work experience has rounded out my knowledge of clean coding principles and best-practices. I have received positive feedback from past line managers, including my previous placement where the system I built is now integral to their main DevOps workflow.

Education

Imperial College London — London, UK
MSc in Advanced Computing — *Sep 2024 – Present*

Royal Holloway, University of London — Surrey, UK
BSc Computer Science w/ Year in Industry, First Class Honours — *Sep 2020 – Jun 2024*

Experience

Teaching Assistant — Sep 2023 – Apr 2024
Royal Holloway University of London — *Egham, UK*

- Assisted in teaching Python and C programming laboratories for undergraduate students.

Software Engineer Intern — Jun 2023 – Sep 2023
Arqit — *London, UK*

- Automated end-to-end integration testing using Cypress, Cucumber, and Gherkin frameworks within a GitLabs CI/CD pipeline.

Software Engineer (Year in Industry) — Jun 2022 – Jun 2023
ABB Ltd — *Cambridgeshire, UK*

- Achieved an EDT Platinum Award for my contributions.
- Developed embedded software in C, and worked on C# applications.
- Proposed and led a DevOps improvement project.

Academic Projects

FractOS Runtime

- My dissertation project building a Python Ray-like runtime for a disaggregated data-centre (FractOS).
- Includes researching and developing for distributed systems, with a focus on scheduling theory, performance optimisation, and networking.

ML Inference System

- Within a team, built an inference engine in Python to predict Acute Kidney Injury based on blood-test results.
- The system was Dockerised and deployed on a Kubernetes cluster using Prometheus for monitoring, and then ran for two weeks under a simulated adversarial environment without incident.

Web-Service QoS Research Project

- Research project optimising end-to-end quality of service of web-service composition designs using meta-heuristics.
- Involved building a web-service workflow framework and using web-scraped data to run experiments in Python.

RSA Encryption Application

- Developed a full RSA encryption application, including from-scratch encryption primitives such as key generation, in Rust.
- Included a TypeScript front-end hooked in with Tauri.

Technical Skills

Languages: Python, Java, Go, Rust, TypeScript/JavaScript, SQL, C#
Tools: Linux/Bash, Git, GitLab Pipelines, Docker, Kubernetes, Criterion, Cypress, Cucumber, Gherkin
Methodologies: Test Driven Development (TDD), DevOps, CI/CD, Agile/Scrum/Lean, End-to-End Integration Testing, OOP, Functional Programming, Microservice Architecture