

EDUCATION

University College London <i>MSc Data Science & Machine Learning</i>	London, England <i>Sept 2024 – Aug 2025</i>
University of Bristol First Class Honors 75% Average. <i>BSc Computer Science — — Netcraft Award: Top ten in academic performance</i>	Bristol, England <i>2021 – 2024</i>
St. Joseph's RC High School <i>A* A* AA Physics, Mathematics, Chemistry, Welsh Baccalaureate</i>	Newport, Wales <i>2019 – 2021</i>

TECHNICAL SKILLS

Languages: Python, JavaScript, Java, C, Golang, SQL(SQLite)
Technologies: Git, Github Actions, Docker, Google Cloud, MongoDB, VSCode, PyCharm, IntelliJ
Libraries/Frameworks: pandas, NumPy, Matplotlib, Jester, unittest, Next.js, TailwindCSS

EXPERIENCE

DevOps Intern Github Actions, Docker <i>High Performance Computing Group at the University of Bristol</i>	June 2024 – Present <i>Bristol, England</i>
<ul style="list-style-type: none">Designed and implemented CI/CD pipelines using GitHub Actions, successfully migrating from Jenkins, resulting in a more streamlined and efficient deployment process.Automated integration, regression & unit testing, ensuring compatibility across multiple operating Systems (Linux Distros, MacOS) and compilers (Clang, GCC) improving software reliability via Docker & Github Actions.Collaborated with cross-functional teams to understand project requirements and deliver custom solutions.	
Software Engineering Teaching Assistant <i>University of Bristol</i>	Sept 2023 – May 2024 <i>Bristol, England</i>
<ul style="list-style-type: none">Mentored students in software engineering practices, including Docker, GitHub Actions, and Agile methodologies.Coached students on iterative development, continuous feedback, and team collaboration in Agile project management.Facilitated group projects and code reviews, promoting collaboration and high-quality coding standards.	

PROJECTS

Super-scalar RISC Processor Simulator Python, Numpy <ul style="list-style-type: none">Developed a pipelined super-scalar out-of-order CPU simulation from scratch in Python.Implemented an OOP model for major components such as architectural registers, execution units, reservation stations, a register alias table and the six-stage pipeline's fetch, decode, issue, write-back and commit components.Conducted detailed experiments to evaluate CPU performance, focusing on realistic performance characteristics through test kernels targeting mathematical operations and branch prediction/speculation.	Feb 2024 — May 2024
Autonomous Cellular Simulation Golang, AWS <ul style="list-style-type: none">Concurrency & Distributed Networks coursework, experience with multi-threading.Written in Golang and deployed on an EC2 AWS instance utilising fault tolerance to allow the simulation to continue in the event of a worker/network failure.Highly parallelised, using message passing and memory sharing techniques.	Oct 2023 — Dec 2023
Industrial Sand Filter Digital Twin Python, Django, Sqlite, JS, Google Cloud <ul style="list-style-type: none">Developed a web application to display prototype designs and simulations using the Python Django framework.Automated CI/CD with reusable YAML workflows using Github Actions, Docker & Google Cloud.Practiced Agile methodologies and Kanban framework with teammates whilst working on the project.Utilised Jest & unittest libraries to unit test Simulation Display and simulation model components.Engage with clients regarding project specifications, constantly interacting & updating them on our progress.	Sep 2022 -- May 2023
Scotland Yard Graph Based Game Java — Pair programming Project <ul style="list-style-type: none">Created an enemy AI algorithm utilising a Minimax algorithm and alpha-beta pruning to rank the best move choices from a list of possible choices found via Bi-direction breadth-first search.Constructed turn based game logic, updating turns, possible moves, game state, etc.	Feb 2022 — Apr 2022

Hobbies & Interest: Rock Climbing, Calisthenics, Cycling, Piano, GameJams/Hackathons, Digital Art.