

EDUCATION

King's College London | Undergraduate

September 2022 – June 2025 (Predicted)

Bachelors of Science (Hons) in Computer Science – Predicted First Class Honours

Imperial College London | Software Engineering

Distinction

September 2022 – January 2023

King's College London Mathematics School | A-Levels

September 2020 - August

A*, A*, A*, A, A - Mathematics, Further Mathematics, Physics, Computer Science, EPQ

EXPERIENCE

Student Software Engineer – Jaguar Land Rover

September 2023 - Present

- Developing and maintaining internal frontend and backend software, written in React, NodeJS, Python, Java and more to significantly reduce manual engineering tasks, perform data analytics, and improve task management in JIRA.
- Integrating CI/CD pipelines to streamline build, testing, and deployment.
- · Creating and interacting with a RESTful API for remote communication and successfully transfer data between different systems.
- Constructed network communications between Arduinos using C++ to simulate module communication within vehicles and used to identify issues with module communication within a vehicle's network bus.
- · Worked with Google Cloud Platform as well as building SQL and NoSQL databases to store and interact with large vehicle datasets.

Software Engineer Intern – Coveo

June 2023 – September 2023

- Built custom POCs for clients using React and TypeScript to demonstrate generative AI features, mimicking pixel-perfect representations of their respective website designs from scratch.
- Utilised Machine Learning algorithms in product demos to drive relevance searching capabilities, query suggestions, facet management, pagination, and recommendations; each uniquely tailored to client requirements.
- Redesigned and refactored a demo environment increasing build efficiency and runtime performances, while also cutting down development to production transition time.

PROJECTS

X-Clone – React.JS, TypeScript, Prisma, PostgreSQL, GraphQL

- Developed a pixel-perfect, responsive clone of the social media platform X (Twitter) using the MERN stack, capturing core features and user interface elements.
- Integrated JWT-based authentication, enabling secure user logins, message posting, following other users, and personalised home feed browsing.
- · Implemented a full-stack GraphQL API with Apollo Client for efficient and scalable data fetching.

FPS Multiplayer Game Prototype – C#, Unity, Amazon Web Services (AWS EC2)

- · Constructed and documented the development of a prototype first-person shooter using Unity and C#
- Established multiplayer functionality by building a server to manage socket connections, TCP and UDP network protocol communication, lag compensation and more in a client-server architecture, built for a Linux computer hosted in AWS.
- · Implemented popular first-person mechanics including wall-running, mantling and parkour stunting

Local Song Downloader - Python (+ pytube)

- Built an application to extract user playlist data from Spotify and downloads songs locally
- Utilises Spotify API with OAuth2 authentication and YouTube API

King's Certificate: Improving the Online Shopping User Experience (UX) - HTML, Bootstrap, C#

- · Developed an impression online shopping service using .NET in a collaborative environment based on client requirements.
- Implemented frontend development, pagination, and dynamic navigation as well as web scraper program in Python to fetch data.
- · Incorporated concepts on user psychology, customer centricity, and responsive design from prior research on the project

National University of Singapore High-School: Hackathon 2020 (U-Receipts) – HTML, Bootstrap/CSS, C#, SQ

- · Led and developed a receipts-storing web application using .NET framework with database storing in SQL
- Implemented frontend design for landing page, dashboard, and information display pages while also assisted in backend development

SKILLS

<u>Technical Skills</u>: React, Python, TypeScript, PostgreSQL, MongoDB, GraphQL, AWS, GCP, CI/CD, Git, MatLab <u>Relevant Skills</u>: Learner, Communicator, Problem-Solver, Analytical, Versatile, Creative, Innovative