SAFWAN R. CHOWDHURY

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EDUCATION

Imperial College London *Sept 2023 - Sept 2024*
Master of Computing (Software Engineering)

University of Leeds *Sept 2020 - June 2023*
Bachelor of Computer Science w/ Artificial Intelligence **First Class Hons (1ˢᵗ)**

WORK EXPERIENCE

Freelance Software Engineer *Aug 2024 - Present*
ProjektRising
• Collaborated directly with client to develop an end-to-end automation system using Puppeteer, Azure authentication, and GCP serverless functions for data extraction, preprocessing, and report generation.

PROJECTS

Gaussian Belief Propagation for Multi-Agent Platooning *Mar 2024 - Sept 2024*
Research, C++, Python, OpenCV, raylib, WebSockets, Git
• Developed the GBPPlanner-Platooning system, integrating it with Euro Truck Simulator 2 to demonstrate real-world multi-agent platooning capabilities and enhance robot navigation through cohesive collaboration, redundancy, and decentralised infrastructure—applicable in supply chain logistics and robotics.

Machine Learning Acute Kidney Infection (AKI) Predictor *Feb 2024 - Mar 2024*
Python, Pandas, Scikit-learn, Docker, Kubernetes, Git
• Developed a machine learning model to predict Acute Kidney Injury (AKI), showcasing expertise in healthcare data analytics and data preprocessing pipelines for high-quality input data.
• Deployed the model using Docker and Kubernetes, achieving an **F-Score of 1.00** and an average processing time of **0.869 ms** per message.

Portfolio Website *Jan 2024 - Jan 2024*
Tailwind, TypeScript, Next.js, React, Vercel, Node, Git
• Created a personal portfolio website implementing responsive design for optimal viewing across devices.
• Optimised performance to reduce loading times by **54%** to **0.34 seconds** using modern web development practices.

VR Online Chess Website *Jan 2023 - June 2023*
JavaScript, React.js, Three.js, WebXR, AWS, Vercel, Git
• Developed a full-stack VR online chess platform (3d-chess.co.uk) providing an engaging user interface.
• Optimised performance to achieve average game loading times of **1.49 seconds**; implemented server-side game logic in Python for real-time gameplay.

Airline API *May 2023 - May 2023*
SQLite3, Django, Python, REST API, Unit Testing
• Implemented database integration and data population scripts to ensure seamless data handling and manipulation.
• Managed and versioned the project through GitHub, showcasing proficiency in version control and collaborative development practices

EXTRACURRICULAR

• **Leadership and Community Building**: Served as Head Prefect at Jack Hunt School and President of Leeds Asian Society, demonstrating strong leadership by organising inclusive events and fostering a supportive community.
• **Research and Communication Skills**: Presented research on EAL (English as an Additional Language) students to teachers at SSAT Events across the UK, showcasing excellent communication and presentation abilities.
• **Volunteer Work**: Organised and managed large-scale charity events for Children in Need, handling cross-functional tasks such as finance, event planning, and marketing, including negotiating venue costs and leading sub-teams.