

TECHNICAL SKILLS

Languages: Python, VBA, Java, JavaScript (ES6+), Terraform, HTML/CSS, SQL, Bash/Shell

Frameworks: Agile, React, React-Native, Angular, Node.js, Pytorch, SpaCy, Scikit-learn, Flask

Developer Tools: Git, Docker, AWS, Jenkins, Jira, Bitbucket, Linux/Unix (Ubuntu, Amazon Linux), PowerBI

Additional Competencies: PowerBI, Adobe (Photoshop, Illustrator, Indesign), Autodesk (AutoCAD, Revit, 3DS Max), Unreal Engine

Certifications: AWS Cloud Practitioner, Neo4j Certified Professional, The Complete 2023 Web Developer Bootcamp

RELEVANT EXPERIENCE

Software Engineer (Data Systems & Infrastructure)

Manchester, UK

Bosch (ETAS) - Embedded Systems for Automotive Industry

Sep. 2024 – Present

- Managed Linux-based servers (Amazon Linux, Ubuntu) in production and staging environments, automating system setup, backups, and scalable deployments using Python scripts and cron jobs.
- Built CI/CD pipelines with Jenkins and Terraform, integrating diagnostic loggers for reliable automation and troubleshooting.
- Developed a Java logging application to extract and transform system metrics from a proprietary automotive tool into structured HTML reports for **25+ stakeholders**, enabling system health monitoring using automated jobs.
- Redesigned a high-cost analytics system architecture by replacing AWS OpenSearch Serverless and OSIS with a self-managed EC2-based OpenSearch cluster, integrating custom ingester nodes and an updated Python parser. Reduced monthly costs from **~\$5500 to \$675 per month** (88% savings) while maintaining full scalability and functionality.
- Reduced data pipeline latency by over **70%** by replacing legacy architecture with scalable Python-based XML-to-JSON AWS Lambda solution to consume **130M+ records daily**.
- Designed **ML-based diagnostic prediction tools** using sequential pattern mining, improving vehicle next-likely fault prediction accuracy to **60%** and informing predictive maintenance strategies.
- Architected and delivered a production-ready natural language interface for Neo4j, using transformer-based intent classification and fine-tuned LoRA models — enabling non-technical users to query graph data directly with **>90% success**.

Graduate Data Analyst

Wolverhampton, UK

KTC Edibles Ltd — Supplier & Manufacturer for Food & Oil

Jun. 2023 – Oct. 2023

- Led the automation of SQL-based business insights, **eliminating 16 hours** of weekly manual effort and streamlining data delivery. Enabled real-time reporting for **80+ employees**.
- Redesigned Sales Dashboard UI and VBA-driven inputs. Optimised data organisation through data modeling and reduced anomalies. Post-deployment survey showed **93% satisfaction** improvement in usability and reporting efficiency.

EDUCATION

Academic Qualifications

Master of Science, Applied Data Science — University of Buckingham

In Progress.

Master of Science, Computer Science — University of Bath

Graduated with Distinction

Awarded the Global Leaders Scholarship for academic excellence and outstanding leadership.

Honours Bachelor of Science — University of Bath

Graduated with 2:1

Appointed Senior Student Ambassador for supporting student outreach and learning initiatives.

Appointed President of the Afro-Caribbean Society, leading cultural awareness and community inclusivity initiatives.

Professional Qualifications

Level 7 Certificate, Digital and Technology Solutions Specialist

In Progress.

Level 3 Diploma, Networking and Cybersecurity

Awarded by Gateway Qualifications

PROJECTS

Natural Language Processing for Early-stage Carbon Assessments (ECO Tool) | Python (Scikit-learn, NLTK), Flask, Docker, React

- Built and deployed a production-grade ML tool to predict embodied carbon from architectural design descriptions using an NLP ⇒ Histogram-based Gradient Boosting (HGB) pipeline. Backend deployed on Hugging Face Spaces; frontend live via Netlify.
- Achieved a **System Usability Scale (SUS)** score of **84.75** in a user study tested by **43 AEC professionals and students**, with average ratings of **4.89/5** for usability and integration.
- Achieved **100% precision in ranking** carbon impact in structured test cases via transformer-based entity recognition and semantic analysis (spaCy, Hugging Face, NLTK).

Deep RL Models for Increasingly Complex Game Environments: Doom & CartPole | *Python, Pytorch*

- Developed and implemented multiple deep reinforcement learning algorithms (**DDQN, DRQN, PPO, REINFORCE**) to train agents on both simple (CartPole) and complex (VizDoom “Defend the Center”) environments.
- Designed agents capable of learning navigation, resource management, and survival strategies through visual input and environment feedback.
- Evaluated and compared performance across environments, highlighting the effectiveness of advanced models in high-dimensional state/action spaces.

Bloom: Gamified Plant Learning Application | *JavaScript, React, React-Native*

- Led the design and delivery of **Bloom**, a cross-platform mobile app that gamifies plant care education through interactive learning and habit-forming mechanics.
- Deployed to **12+ physical iOS/Android devices** via Expo for real-world testing, enabling iterative UX improvements and device-specific optimisations.
- Improved user experience through weekly feedback loops, resulting in an **80% increase in satisfaction scores** and measurable gains in user engagement.

Simulation of Relational Database Systems using CRUD Operations | *Python (Tkinter, SQLite3), SQL*

- Developed a simulated Airline Database Management System, integrating a Python Tkinter GUI with a relational SQLite3 backend.
- Implemented functionalities to add, edit, and delete records across multiple tables (flights, employees, airports), with real-time updates and validation in database.