

## TECHNICAL SKILLS

**Languages:** Python, SQL, JavaScript (ES6+), Java, VBA

**Data & ML:** scikit-learn, PyTorch, spaCy, NLTK, Hugging Face, Neo4j, PowerBI

**Cloud & DevOps:** AWS, Terraform, Docker, Jenkins, GitHub Actions, Linux (Ubuntu, Amazon Linux)

**Web Frameworks:** React, React-Native, Angular, Node.js, Flask, HTML/CSS

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

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

## RESEARCH & PUBLICATIONS

**Oshidero, D. F. O. & Coley, D. A. (2026). Talking Carbon: A Lexical Approach to Predictive Carbon Analysis via Machine Learning.** *International Journal of Architectural Engineering and Design Management*, pp. 1–34. doi: 10.1080/17452007.2026.2613773

- Introduced a novel ML methodology combining NLP and Histogram-based Gradient Boosting for predicting embodied carbon from conversational design language, validated through real-world case studies and user evaluation.

## RELEVANT EXPERIENCE

### Software Engineer (Data Systems & Infrastructure)

(Remote) Manchester, UK

**Robert Bosch GmbH & ETAS Ltd.** — Embedded Systems for Automotive Industry

Sep. 2024 – Present

- Cut analytics platform cost by ~88% (**from \$5.5k to \$675/month**) by replacing managed AWS OpenSearch/OSIS with a self-managed EC2 OpenSearch cluster using Python-based ingesters and parsers, maintaining scalability and functionality.
- Designed pattern mining algorithms for sequence-based machine learning models to analyse temporal diagnostic logs and predict next-likely vehicle faults, with approximately **60% accuracy**.
- Architected a production-ready NLP interface for Neo4j using transformer intent models and LoRA fine-tuning, enabling non-technical users to query graph database with **above 90% success**.
- Automated a Java-based logging pipeline to extract system metrics from internal automotive tool and generate HTML diagnostics reports for **25+ stakeholders**, enabling continuous system health monitoring.
- Managed Linux-based servers (Amazon Linux, Ubuntu) via Jenkins/Terraform workflows and Python/cron-based automation for provisioning, backups, and system maintenance across production and staging environments.
- Re-architected legacy ingestion into a scalable Python XML-to-JSON AWS Lambda pipeline processing **130M+ records/day**, reducing data pipeline latency by 70%.

### Data Engineer & Analyst (BI Infrastructure)

Wolverhampton, UK

**KTC Edibles Ltd.** — Supplier & Manufacturer for Food & Oil

Jun. 2023 – Sep. 2023

- Engineered an automated SQL-based data infrastructure by replacing manual CSV workflows with ETL pipelines, CRM ingestion scripts, SQL Agent scheduling, and data validation processes — eliminating **16+ hours** of weekly manual work and enabling **real-time reporting for 80+ employees**.
- Enhanced BI capabilities by implementing RLS-secured dashboards, VBA-based data entry tools with audit trails, and improved data models — driving a **93% improvement** in user satisfaction 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

### 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.