

Mmesoma Nwachukwu

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[Git hub profile](#), [LinkedIn](#)

EDUCATION

Coventry University

Expected Graduation May 2026

BSc Computer Science – *Predicted First Class Honors*

Courses: Programming and Algorithms, Computer Systems, Mathematics for Computer Science, Artificial Intelligence, Theory of Computation, Advanced Algorithms, Data Science, Software Engineering

SCHOLARSHIPS AND AWARDS

- **Year in Industry Student of the Year** – National Highways (*1 of 10 selected from 400 participants*)
- **Santander Universities Scholarship** – Santander Bank (*1 of 100 nationwide*)
- **AWS Machine Learning Scholarship** – Top 2% of 50,000+ DeepRacer applicants
- **Best Canadian Foundation Student** – 16 Plus Schools
- **Intern of the Year** – Paradigm Finance

PROFESSIONAL EXPERIENCE

AI Engineer (Contractor)

Projekt Rising

Dec 2025-March 2026

- Building AI solutions for small and medium businesses by analysing their workflows, identifying automation gaps, and shaping model requirements that fit real operational needs.
- Integrating models into client systems by creating APIs, connecting data sources, and setting up monitoring routines that track accuracy, latency, and user outcomes.
- Delivering contract projects by running model experiments, improving performance, and preparing deployments that clients can use in day-to-day work.

Software Engineer Intern

SalesAPE.ai

Dec 2025-March 2026

- Designed and implemented MVP AI prototypes to validate product feasibility as a member of the “hacksquads” by testing ideas, validating technical feasibility, and providing working demos for leadership.
- Improved model reliability through experiment design and evaluation pipelines by documenting experiments, improving model reliability, and preparing prototypes that move closer to production use.

Digital Services Year in Industry

National Highways

July 2024-July 2025

- Developed a knowledge graph with **Retrieval-Augmented Generation (RAG)** to extract insights from a large corpus of interconnected documents.
- Built and validated a Retrieval Augmented Generation knowledge graph to extract insights from large engineering document sets supporting infrastructure asset management.
- Developed a geospatial segmentation model using satellite and asset data to identify roadside habitats, improving infrastructure planning and environmental asset management workflows.

AI Trainer

Outlier AI

July 2024-May 2025

- Trained generative AI models for code generation through problem-solving and output evaluation.
- Created functional test cases and provided technical feedback to improve AI-generated code
- Applied software engineering across Python, JavaScript, and C++ to develop next-gen coding tools.

Founder

FaceRegg

May-August 2023

- Founded and built an image verification SaaS using convolutional neural networks for facial and image matching, delivering automated identity validation for client security integrations.
- Designed model training and inference pipelines using **TensorFlow** and **OpenCV**, optimizing accuracy and response latency for real world image inputs.
- Developed deployment ready APIs and integrated the system into client workflows, enabling automated verification and reducing manual review overhead.

Research Intern

Imperial College London

June-July 2023

- Collaborated in a cross-functional team to design sustainable solutions in energy and infrastructure.
- Prototyped data-driven technologies addressing climate resilience and scalability.
- Worked with researchers and industry mentors to assess impact and feasibility of innovations.

Software Engineering Intern

Paradigm Finance

Sept-December 2021

- Implementing and adhering to security best practices to safeguard sensitive financial data.
- Assisted with credit risk analysis by building tools to assess client portfolios and generate reports.
- Developed and maintained internal web applications.

PROJECTS

ExcelPoint WebApp

- Designed and implemented a full stack RAG learning platform using **Django, React, PostgreSQL, and LangChain**, enabling semantic search and context aware chat over uploaded educational documents using vector embeddings and sentence transformers.
- Built scalable AI processing pipelines with **Celery** and **Redis** for asynchronous document analysis, quiz generation, and adaptive learning workflows, integrated with **AWS S3** storage and JWT authenticated APIs.

Payment Authorisation System

- Built a payment authorization simulator modeling card network flow, issuer behavior, retry logic, and fraud feedback using Python and PostgreSQL.
- Developed issuer aware decision logic that adapts retry and authentication strategies based on historical approval patterns to improve authorization outcomes.
- Created an evaluation framework comparing baseline rules against adaptive strategies, measuring financial impact and transaction performance.

LEADERSHIP EXPERIENCE

Head of Engineering

Responsible AI Governance Initiative

Aug 2025-Present

- Leading the engineering efforts for a nonprofit focused on responsible AI development and governance.
- Managing a cross-functional technology team to build projects aligned with ethical AI standards.
- Overseeing architecture and development of technical projects

SKILLS

- **Languages:** Python, C++, JavaScript, HTML/CSS, R, Typescript, SQL,
- **Tools:** TensorFlow, PyTorch, NumPy, Pandas, Databricks, PostgreSQL, MongoDB, Git, VS Code, Jupyter, AWS, Knowledge Graphs, React,

CERTIFICATIONS

- CISCO Networking Academy: Introduction to Networks
- Coursera – Convolutional Neuro Networks

VOLUNTEERING

- **Coventry University Sports Society** – Football captain
- **Big Bang Fair Volunteer 2025**