

Mmesoma Nwachukwu

+447404517459 mnfinance664@gmail.com mmesomadev.com [GitHub](#) [LinkedIn](#)

PROFILE

AI/ML Engineer graduating May 2026 with a predicted First Class from Coventry University. Built and deployed machine learning systems at National Highways, contracted as an AI Engineer, and competed at Cambridge placing top 5 out of 50 teams. Selected for 5 scholarships and awards across a 400-person cohort, 50,000-applicant pool, and nationwide competitions.

EDUCATION

BSc Computer Science [Coventry University](#) *Expected May 2026*
Predicted First Class Honours Relevant modules: AI, Data Science, Advanced Algorithms, Software Engineering, Theory of Computation

SCHOLARSHIPS AND AWARDS

Year in Industry Student of the Year *National Highways, 2025*
1 of 10 selected from 400 placement students nationwide

AWS Machine Learning Scholarship *Amazon Web Services, 2023*
Top 2% of 50,000+ DeepRacer applicants

Santander Universities Scholarship *Santander Bank, 2023*
1 of 100 recipients selected nationwide

Intern of the Year *Paradigm Finance, 2021*
Best Foundation Student *16 Plus Schools, 2021*
Top student out of 50 in the cohort

PROFESSIONAL EXPERIENCE

AI Engineer (Contractor) [Projekt Rising](#) *Dec 2025 - Mar 2026*

- Analysed client workflows across 3 SMEs to identify automation gaps, then shaped model requirements and delivered working AI integrations into their operational systems.
- Built and monitored production APIs connecting AI models to client data sources, tracking accuracy, latency, and user outcomes across deployments.

Software Engineer Intern [SalesAPE.ai](#) *Dec 2025 - Mar 2026*

- Designed and built MVP AI prototypes as part of a fast-moving hacksquad, testing product feasibility and delivering working demos to leadership for go or no-go decisions.
- Designed evaluation pipelines to measure model reliability and document experiment results, moving prototypes closer to production quality.

Head of Engineering [Responsible AI Governance Initiative](#) *Aug 2025 - Present*

- Lead the engineering function for a nonprofit focused on responsible AI development, managing a cross-functional team across active technical projects.
- Set technical direction and oversee architecture decisions to ensure projects align with ethical AI standards and governance requirements.

Digital Services Year in Industry [National Highways](#) *Jul 2024 - Jul 2025*

- Built a weather classification and removal model using CNNs achieving 98% classification accuracy on a dataset of 10,000 CCTV images, improving the reliability of road monitoring systems.
- Developed a RAG knowledge graph over thousands of interconnected engineering documents, enabling structured insight extraction to support infrastructure asset management.
- Built a computer vision segmentation model on satellite imagery to identify and classify roadside habitats, improving environmental workflows in infrastructure planning.

AI Trainer [Outlier AI](#) *Jul 2024 - May 2025*

- Evaluated and improved AI-generated code across Python, JavaScript, and C++ by designing test cases and providing structured technical feedback to improve model output quality.

Founder [FaceRegg](#)*May 2023 - Aug 2023*

- Founded and built an image verification SaaS using CNNs for facial and image matching, acquiring paying clients and delivering automated identity validation for their security integrations.
- Designed model training and inference pipelines using TensorFlow and OpenCV, optimising accuracy and response latency for real-world inputs.

Research Intern [Imperial College London](#)*Jun 2023 - Jul 2023*

- Collaborated in a cross-functional team prototyping data-driven technologies addressing climate resilience, working with researchers and industry mentors to assess impact and feasibility.

Software Engineering Intern [Paradigm Finance](#)*Sept 2021 - Dec 2021*

- Built internal tools for credit risk analysis, generating client portfolio reports and maintaining web applications while adhering to financial data security standards.

PERSONAL PROJECTS

Sentiel1

- Built a dual-branch ResNet50 system identifying vehicle make, model, and year from images in 46ms, achieving 81.71% hierarchical accuracy using ordinal regression, Kendall uncertainty weighting, and temperature scaling calibration.
- Deployed a Flask REST API with real-time Euro NCAP database lookup via fuzzy matching, producing court-admissible forensic JSON outputs for accident reconstruction pipelines.

Street Fighter Reinforcement Learning Agent

- Built a solo RL agent for the DIAMBRA Arena competition at Cambridge, placing top 5 out of approximately 50 teams using a custom reward-shaping strategy and PPO-based policy trained on Street Fighter environments.
- Independently designed and tuned the observation space, action masking, and training curriculum, competing against teams on a global leaderboard.

ExcelPoint

- Built a full-stack RAG learning platform using Django, React/TypeScript, PostgreSQL, and LangChain with semantic search and context-aware chat over uploaded educational documents using vector embeddings and sentence transformers.
- Architected async processing pipelines with Celery and Redis for document analysis, quiz generation, and adaptive learning workflows, integrated with AWS S3 and JWT-authenticated APIs.

SKILLS

ML / AI: PyTorch, TensorFlow, LangChain, Hugging Face, OpenCV, Scikit-learn, RAG, Knowledge Graphs, Reinforcement Learning

Backend: Python, Django, Flask, Node.js, PostgreSQL, MongoDB, Redis, Celery, REST APIs, SQL

Frontend: React, TypeScript, JavaScript, HTML/CSS

Cloud / Infra: AWS S3, Databricks, Docker, Git, Jupyter, VS Code

Languages: Python, C++, JavaScript, TypeScript, R, SQL