

Williams Odunayo

AI Developer | Machine Learning Engineer

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 Nigeria

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 Portfolio

I'm an **AI/ML Engineer** passionate about building real, usable solutions. I enjoy working with data and turning complex problems into working systems. I care about getting things to work, learning fast, and using tech to make an impact.

Always learning, always building.

WORK EXPERIENCE

ML Engineer (Part-Time)

02/2023 – 03/2025

Adsynthetica - Remote

US

Achievements/Tasks

- Developed and deployed **machine learning models** for advertising automation, content analysis, and campaign optimisation
- Built **predictive models** for marketing analytics, collaborating with product managers and data teams
- Created **data preprocessing pipelines** for structured and unstructured data to optimise model training
- Monitored and maintained deployed models in production, integrating AI solutions into existing platforms

Junior Growth Consultant

01/2025 – 05/2025

FutaMart

Nigeria

Campus-based e-commerce and logistics platform

Achievements/Tasks

- Supported logistics operations and customer service for student-focused e-commerce platform, gaining hands-on experience in e-commerce workflows
- Contributed to platform growth through student engagement initiatives and digital marketing campaigns
- Assisted with order fulfillment processes and customer support automation strategies

EDUCATION

Bachelor of Science (B.Sc)

07/2022 – Present

Federal University of Technology, Akure.

Nigeria

Courses

- Remote Sensing and GIS Applications
- Spatial Analysis and Modeling
- Image Processing and Interpretation

SKILLS

AI/ML Expertise

- Machine Learning
- Deep Learning
- Natural Language Processing (NLP)
- Computer Vision
- Model Training & Optimisation
- Model Deployment

Data Engineering & Processing

- Data Preprocessing
- Feature Engineering
- Structured & Unstructured Data
- Pandas
- NumPy
- Data Pipeline Automation

Additional Expertise

- Remote Sensing & GIS
- Spatial Analysis
- Image Processing
- Geospatial Intelligence

Programming & Frameworks

- Python
- TensorFlow & PyTorch
- Scikit-learn
- OpenCV
- LangChain
- FAISS
- Flask & FastAPI

Deployment & Integration

- Model Deployment
- API Development
- System Integration
- Docker
- Hugging Face Spaces
- TensorFlow Lite
- Cloud Deployment

PERSONAL PROJECTS

Fridge2Dish

10/2025 – 12/2025

Computer Vision & Generative AI System

- Developed end-to-end **computer vision pipeline** combining custom **CNN** (TensorFlow) with **YOLOv8** for robust ingredient detection in real-world images
- Designed **multimodal AI system** generating structured recipes from detected ingredients using **Gemini LLM** with **Qwen** as automatic fallback for fault tolerance
- Engineered **FastAPI** backend with async execution, request cancellation, and OpenCV preprocessing
- Deployed production-ready solution using **Docker** on Hugging Face Spaces

Ask-Your-Doc

09/2025 – 10/2025

RAG-Powered Chatbot

- Built a **RAG chatbot** using Flask, **LangChain**, and Gemini API for intelligent document interaction
- Integrated **FAISS vector stores** and MiniLM embeddings for contextual document retrieval and semantic search
- Designed **API and CLI interfaces** for local and cloud inference with optimised low-memory deployment

EmotiSense

05/2025 – 08/2025

Real-Time Emotion Recognition System

- Developed **CNN-based emotion recognition** system with speech feedback using TensorFlow, OpenCV, and Flask
- Deployed lightweight **TensorFlow Lite models** for edge inference and real-time visual feedback
- Integrated **multimodal AI** experience combining computer vision and voice output
- Implemented web-based inference mode for accessible deployment

BrainScan AI

03/2025 – 05/2025

Medical Diagnostic AI System

- Trained **deep CNN model** achieving **90%+ accuracy** on MRI scan analysis for medical diagnostics
- Deployed via Flask and **TensorFlow Lite** for smooth, accessible model inference in healthcare settings
- Documented fully reproducible **ML pipeline** for real-world diagnostic applications

Weather Prediction System

01/2025 – 03/2025

Predictive Analytics

- Designed data preprocessing and model training pipelines using **RandomForest** and **XGBoost** algorithms
- Implemented automation scripts for data ingestion and validation using Pandas and Scikit-learn
- Built **predictive models** for weather forecasting with high accuracy and performance

CERTIFICATES

Introducing Generative AI with AWS

(07/2025)

Programming Foundations: Beyond the Fundamentals

(06/2024)

KEY COMPETENCIES

- Cross-functional collaboration with engineers, product managers, and data teams
- Machine learning model training, testing, and optimization for production
- Fast learning and adaptation to emerging AI technologies

- End-to-end AI solution development from design to deployment
- API development and system integration for AI applications
- Problem-solving in resource-constrained and high-impact environments