ADEKUNLE ADELAKUN

adelakunyusuf199@gmail.com | 09063960487 | Lagos, Nigeria
linkedin.com/in/adekunle-adelakun-94b76721a | github.com/Adelakun1999

EDUCATION

- **Federal University of Agriculture, Abeokuta** *Oct 2019 – Oct 2024*
  B.Sc. Computer Science

SKILLS

- **Languages/Tools:** Python, SQL, Docker, FastAPI, MLflow, Pandas, NumPy, Matplotlib

- **Frameworks:** TensorFlow, PyTorch, LangChain

- **Other:** AWS (EC2), Git, CI/CD, Streamlit

WORK EXPERIENCE

- **Data Science Nigeria** *Machine Learning Engineer — May 2025 – Present*

  - Generated training data and improved response quality using advanced prompt engineering techniques.
  - Developed and evaluated audio classification models for speech-based datasets to enhance content accessibility.
  - Automated audio duration extraction and preprocessing pipelines, improving data handling efficiency.

- **SingleEye Technologies** *Machine Learning Engineer — January 2025 – April 2025*

  - Contributed to the development of the AI engine powering SingleEye's products.
  - Built and optimized machine learning pipelines for computer vision and natural language processing tasks.
  - Deployed scalable ML models to production with Docker and FastAPI.

PROJECTS

- **Loan Approval Prediction Deployment** *FastAPI, Docker, AWS, ML*

  - Built ML model to predict loan approval outcomes using applicant financial and demographic data.
  - Created a REST API with FastAPI to serve predictions for seamless integration with external apps.
  - Containerized with Docker and deployed on AWS EC2, ensuring scalability and reliability.
  - Applied preprocessing, feature engineering, and evaluation to boost accuracy and robustness.
  - Reduced manual application review time by ~40% and minimized default risk for lenders.

- **Conversational RAG Chatbot with PDF Support** *LangChain, FastAPI, Docker, ChromaDB*

  - Developed Retrieval-Augmented Generation (RAG) API for intelligent Q&A over PDFs.
  - Implemented document loading, text chunking, and vector storage (ChromaDB) for efficient retrieval.
  - Deployed with FastAPI and Docker for production-ready scalability and reliability.
  - Enabled multi-session queries with context-aware responses, improving usability.
  - Reduced manual PDF review time by ~60%, boosting decision-making efficiency.

- **Facial Emotion Detection System** *Vision Transformer, FastAPI, Streamlit*

  - Developed deep learning system to classify emotions from facial images.
  - Leveraged vision transformer for feature extraction and classification.
  - Fine-tuned model with data augmentation, learning rate scheduling, and dropout.
  - Deployed using FastAPI and Streamlit for a web-based interface.

LEADERSHIP

- **Deep Learning Indaba 2024** *Fundraising Volunteer*

  - Contributed to organizing and fundraising efforts for Africa's premier ML/AI community event.

PROFESSIONAL ACTIVITIES

- Open Source Contributor

- AI Community Engagement