# ABIODUN MUHAMMAD-AHMAD ODUKAYE

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#### ONLINE PRESENCE

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Github https://github.com/Xloanx

## **OBJECTIVE**

Innovative AI Solutions Engineer with 9+ years of expertise in software development, AI-driven automation, and machine learning solutions. Passionate about building scalable AI-powered applications that drive business impact, enhance user experiences, and optimize decision-making. Skilled in Next.js, FastAPI, LangChain, Groq/OpenAI LLMs, MongoDB, and FAISS, with a strong background in web application development, AI product engineering, and intelligent automation. Adept at mentoring teams, fostering innovation, and aligning AI strategies with business objectives to deliver high-impact, data-driven solutions.

#### **SKILLS**

Programming Languages JavaScript, Python, R, MATLAB

Frameworks & Libraries Node.js, React, Next.js, FastAPI, LangChain Databases MySQL, MongoDB & FAISS (Vector Search)

Tools & Platforms
Git, Prisma ORM, AWS, Twilio, OpenAI API, Groq API, Clerk,
Front-End Technologies
HTML, CSS, Tailwind CSS, Radix-UI, Daisy-UI, Framer Motion
Scikit, TensorFlow, Jupyter, FAISS, OpenAI GPT, Groq Llama3

ML & AI Tools Scikit, TensorFlow, Jupyter, FAISS, OpenAI GPT, Groq Llama3

AI & NLP Expertise RAG, Web Scraping, LLMs, NLP, Prompt Engineering, AI-Powered Automation

Soft Skills Communication, Critical Thinking, Problem-Solving, Teamwork & Collaboration

#### PROFESSIONAL EXPERIENCE

## Fullstack/AI Solutions Engineer (FreeLance)

Kernel Greens Integrated Services

Jan 2016 - Till Date Lagos, Nigeria

- Developed a predictive machine learning model to forecast climate-sensitive waterborne disease outbreaks in Tanzania, leveraging climate, sanitation, and water quality datasets. Achieved a highly competitive Mean Absolute Error score and contributed to actionable insights for public health interventions.
- Developed an LLM-powered email generation system that personalizes cold emails based on industry and engagement history.
- Developed a supervised machine learning model to predict rainfall likelihood using meteorological data, achieving 90% accuracy with optimized Random Forest algorithms and leveraging on tools such as Python, Scikit-learn, and Pandas. Translated complex data into actionable insights for weather-dependent industries while showcasing expertise in predictive analytics and data visualization.
- Designed and implemented an end-to-end AI-powered system for real-time stock and financial insights, leveraging
  6-hourly web scraping, AI-driven query processing, and predictive analytics to enhance data-driven decisionmaking.
- Developed an educational testing platform that enabled various educational providers to efficiently deliver tests to students, increasing user adoption by 40%.

Industrial Training Fund

- Led comprehensive training needs analyses and assessed data for client organizations, accurately identifying knowledge and skill gaps. Developed customized models that improved the accuracy of training needs identification by 90%, enhancing the effectiveness of training programs.
- Created high-quality instructional materials and content aligned with learning objectives, employing the ADDIE instructional design model. Resulted in a 20% increase in learner engagement and knowledge retention.
- Ensured optimal resource allocation and streamlined processes for training projects from analysis to evaluation. Implemented data-driven strategies that enhanced ROI by 30%, driving productivity and efficiency.
- Collaborated with other development team in developing the organization's Enterprise Resource Planning (ERP) system, which boosted efficiency and productivity by 25%. Focused on exceeding customer service delivery expectations and achieving regulatory compliance.

#### **EDUCATION**

Applied Data Science II:  Machine Learning Statistical Analysis (with honors), WorldQuant University	2020
Applied Data Science I: Scientific Computing Python (with honors), WorldQuant University	2020
MSc. (Electrical & Electronic Engineering), University of Ibadan, Nigeria	2016
BSc. (Electronic & Computer Engineering), Lagos State University, Nigeria	2010

#### CERTIFICATIONS

- AWS Cloud Practitioner
- Cisco Certified Network Associate (CCNA)

### PROFESSIONAL AFFILIATIONS

- Associate Member, Nigeria Society of Engineers (MNSE)
- Professional Member, Council For the Regulation of Engineering in Nigeria (COREN)

#### **PROJECTS**

#### Gamma Stock Advisor — March 2025

Project Repository

- Objective: Developed a FastAPI backend and Next.js Frontend to manage financial insights and handle AI-driven query responses..
- Key Responsibilities:
  - Designed a web scraping pipeline to extract stock-related news every 6 hours, storing data in MongoDB.
  - Implemented FAISS vector search for real-time retrieval of relevant financial insights.
  - Integrated LangChain and OpenAI/Groq LLMs for AI-powered stock advisory responses.
  - Built a Next. is dashboard with Clerk authentication for a seamless user experience.
- Tools and Technologies: FastAPI, MongoDB, FAISS, Next.js, LangChain, Groq/OpenAI GPT, Beautiful-Soup, Clerk Authentication
- Outcome: A real-time AI-driven financial assistant that empowers traders with instant, data-backed stock insights.

• Skills Demonstrated: Web Scraping & Data Processing, Natural Language Processing (NLP), Retrieval-Augmented Generation (RAG), End-to-End Development, LLM Integration, Embedding & Vector Search, Solution Architecture and Real-Time Data Handling

## AI-Driven Cold Outreach System — March 2025

Project Repository

• **Objective:** Developed an LLM-powered email generation system that personalizes cold emails based on industry and engagement history.

## • Key Responsibilities:

- Designed a FastAPI backend to handle AI-generated messaging and email delivery via SMTP (Gmail).
- Integrated Twilio API for AI-generated cold call scripts and automatic call placement.
- Built a Next.js dashboard for managing campaigns, sending emails, and tracking outreach performance.
- Implemented LangChain + Groq/OpenAI LLMs for dynamic content generation.
- Enabled batch processing for seamless large-scale campaign execution.
- Tools and Technologies: FastAPI, MongoDB, Next.js, LangChain, Groq/OpenAI LLMs, Twilio, SMTP, Framer Motion and Tailwind CSS
- Outcome: A fully automated AI-powered cold outreach system, increasing engagement rates and outreach efficiency.
- Skills Demonstrated: AI-Generated Email Personalization, Email Automation (SMTP, Gmail), Twilio Integration (Cold Calls), End-End Development to Deployment, Database Management (MongoDB), Conversational AI, Marketing & Sales Tech, Process Automation, User Experience (UX) Focus

#### Resolvo — March 2025

Project Repository

- Objective: A ticket tracking App that drives quality assurance in service delivery and customer satisfaction.
- Tools and Technologies: Next.JS, Context API, MySQL, Prisma-IO and Tailwind-CSS dependent libraries.

Testmate Project Repository

- Objective: An Educational testing App that allows random educational providers to deliver tests to evaluate their students' knowledge.
- Tools and Technologies: Next.JS, React Native, Redux Toolkit, MongoDB, and Taiwind CSS-dependent UI libraries.
- Repository: https://www.github.com/Xloanx/testmate.git