

# Akeem Asiru

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## PROFESSIONAL SUMMARY

Senior Data Scientist & Generative AI Lead Engineer specializing in Agentic AI systems, LLM-driven automation, and Gen AI pipelines. Skilled in architecting and deploying LLM-based applications using LangChain, AutoGen, LangGraph, and OpenAI Agent Builder integrated with MCP servers for enterprise automation. Experienced in RAG, vector search, fine-tuning (LoRA, QLoRA, PEFT), and cloud-native AI deployment across AWS, Azure, and GCP. Adept at designing scalable Gen AI workflows, ensuring governance, model safety, and cost efficiency through structured LLMOps practices.

## CORE COMPETENCIES

- Generative & Agentic AI: LangGraph, AutoGen, Crew AI, OpenAI Agent Builder, MCP
- LLMs & RAG Systems: Hugging Face Transformers, LangChain, FAISS, Pinecone, Weaviate
- Machine Learning: PyTorch, TensorFlow, Scikit-learn, LoRA, QLoRA, PEFT fine-tuning
- Cloud AI Platforms: AWS Bedrock, Azure OpenAI, GCP Vertex AI
- API & Integration: REST API (FastAPI, Flask), Docker, CI/CD, Jenkins, GitHub Actions
- LLMOps: Prompt versioning, caching, observability, evaluation (RAGAS, DeepEval, FMeval)
- Governance & Safety: Responsible AI, bias mitigation, model interpretability, HIL systems
- Data Analytics & Visualization: Python, Pandas, Power BI, Tableau, Streamlit

## PROFESSIONAL EXPERIENCE

**Graduate Data Science Researcher | Eastern University | Jan 2024 – Aug 2025**

- Co-developed predictive and generative models using Bayesian inference, NLP, and transformers.
- Built data pipelines for model training and visualization in Python + TensorFlow.
- Co-authored research on agentic automation in large-scale datasets and hybrid retrieval systems.

**Data Scientist / Agentic AI Engineer** | Kunledollar LLC, NJ | Feb 2023 – Jun 2025  
(Freelance)

- Led design and deployment of autonomous multi-agent systems using OpenAI Agent Builder and LangGraph for financial analytics.
- Integrated MCP Server to orchestrate data pipelines, automate API-driven reporting, and enable cross-agent communication.
- Built Generative AI systems leveraging RAG + LLMs (GPT-4, Hugging Face) for financial forecasting and report summarization.
- Deployed containerized LLM workflows on AWS with Docker and CI/CD automation.
- Implemented prompt caching, versioning, and model evaluation using RAGAS and DeepEval to ensure governance and reproducibility.

**Data Scientist Intern | CenterPoint Energy – Madison, NY** | Aug 2021 – Aug 2022

- Designed and deployed ML models for forecasting and energy optimization.
- Developed LLM prompt frameworks and few-shot examples for internal data automation.
- Built Power BI and Streamlit dashboards enhancing data-driven decision workflows.

**Data Preparer (Freelance) | Remote | Sept 2018 – May 2021**

- Cleaned, structured, and validated large datasets (financial, healthcare, and customer data) to prepare them for AI model training.
- Developed automated ETL workflows using Python, Pandas, and FastAPI to handle real-time CSV, JSON, and API data sources.
- Ensured data accuracy, schema consistency, and labeling quality for LLM fine-tuning and predictive analytics.
- Collaborated with GenAI engineers to integrate cleaned data into RAG and agentic AI pipelines.
- Streamlined preprocessing pipelines, cutting manual data preparation time by 65% and improving model reliability.

**NLP Research Scientist | African Languages Technology Initiatives – Ibadan, Nigeria**  
| Jan 2016 - May 2018

- Engineered NLP tools including diacritization, speech synthesis, and translation systems for low-resource African languages.
- Developed language models and spellcheckers using Bayesian and N-gram models.

- Software Localization Manager | Alt-I – Ibadan, Nigeria | 2007 – 2015
- Led multi-language software localization (Microsoft Windows, Office)
- Managed linguist teams, QA, and translation pipelines.

**Software Localization Manager | Alt-I – Ibadan, Nigeria | Oct 2007 – Dec 2015**

- Led multi-language localization projects (Microsoft Windows, Office).
- Managed QA, terminology development, and linguist onboarding.
- Tools: SDL Trados, Wordfast, LocStudio, Memsource, Reach.

## SELECTED PROJECTS

- Gen AI Financial Report Orchestrator (2025) – Built end-to-end agentic system for automated financial summaries using OpenAI Agent Builder + MCP Server. Integrated LLM reasoning with LangChain + FAISS vector search to enable real-time report generation and email automation.
- RAG-Powered Chatbot (2024) – Developed a hybrid retrieval chatbot using LangChain, FAISS, and LLM fine-tuning to deliver contextual business insights.
- LoRA Fine-Tuning Pipeline (2024) – Fine-tuned open-source models on proprietary data using LoRA/PEFT, improving domain response accuracy by 38%.
- LLMops Dashboard (2024) – Built a real-time prompt evaluation and tracking dashboard integrating DeepEval, RAGAS, and custom metrics via Streamlit.

## EDUCATION

- M.S. Data Science, Eastern University, PA — Feb 2025
- Postgraduate Diploma – Statistics, University of Ibadan
- B.Sc. – Economics, University of Ibadan
- B.Sc. – Electrical & Electronics Engineering, Obafemi Awolowo University

## TECHNICAL STACK

Python | LangChain | AutoGen | LangGraph | GPT-4 | Hugging Face | FastAPI | Docker | AWS | Azure | GCP | FAISS | Pinecone | Streamlit | Power BI | RAGAS | DeepEval | Fmeval

## Certification

- Applied Data Science Certificate, Massachusetts Institute of Technology (MIT) — 2023