Gabriel Ng'ang'a

AI/ML Engineer & AI Automation Specialist

Nairobi, Kenya

Phone: 254 740529919

Email: gabrielnga23@gmail.com

LinkedIn Profile Link: https://www.linkedin.com/in/gabriel-ng-ang-a-0a5894363/

Professional Summary

Full Stack AI/ML Engineer and Automation Specialist with expertise at the intersection of Software Engineering and Artificial Intelligence. Proven ability to architect complete, end-to-end applications, bridging the gap between complex backend AI models and user-facing frontend interfaces. Skilled in building RAG architectures, autonomous agents, and predictive engines using Python, C++, and the OpenAI API. Passionate about solving real-world business problems through scalable AI solutions.

Technical Skills

- **Languages:** Python, C++, SQL, JavaScript, HTML, CSS.
- **AI/ML Frameworks:** PyTorch, Scikit-Learn, LangChain, Hugging Face Transformers, OpenAI API, Gensim.
- **Web Development:** FastAPI, Flask, React.js, Next.js.
- **Infrastructure & Tools:** Docker, Git/GitHub, Linux/Bash, Vector Databases (Pinecone/ChromaDB).
- **Core Concepts:** NLP (LDA, Topic Modeling), RAG Architecture, Object-Oriented Programming (OOP), Data Structures & Algorithms.

Key Projects

Nairobi Rainfall Predictive Classifier | *Python, Scikit-Learn, Pandas*

- Engineered a machine learning model to predict rainfall in Nairobi based on weather data collected from March 2024 to March 2025.
- Utilized **Linear Regression** with a custom 0.5 threshold to convert continuous output into a binary classifier (Rain/No Rain).
- Processed features including temperature, precipitation probability, wind speed, and humidity.
- **Result:** Achieved **90% accuracy** on the test dataset.

NLP Topic Modeling Engine | *Python, Gensim, LDA*

- Developed a Natural Language Processing pipeline to analyze unstructured text data and categorize 100 news articles automatically.

- Implemented **Latent Dirichlet Allocation (LDA)** to identify core underlying themes, successfully distinguishing between "Political/US News" and "General News" topics.
- Built a full preprocessing pipeline including tokenization and stemming to prepare the corpus for analysis.
- **Result:** Created a scalable solution capable of extracting insights from large text corpora like customer reviews or internal documents.

Education & Certifications

Certificate in AI Engineering & LLM Development *365 Data Science | Sep 2025 – Dec 2025*

- **Focus:** Architecting and deploying Large Language Model (LLM) applications.
- **Key Skills:** Built Retrieval Augmented Generation (RAG) pipelines using LangChain and Vector DBs. Designed autonomous agents for multi-step workflow automation.
- **Deployment:** Mastered the lifecycle of shipping AI apps using Streamlit and FastAPI.

Diploma of Education, Computer Science *Riara University | Jan 2024 – Aug 2025*

- **Focus:** Software Engineering fundamentals, System Architecture, and Database Management.
- **Core Competencies:** Strong foundation in Object-Oriented Programming (C++ & Java) and Data Structures & Algorithms.
- **Capstone:** Completed a comprehensive software engineering project demonstrating full-stack development skills.