

Daniel Akinrotimi F.

Forward Deployed Engineer

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👤 PROFILE

Results-oriented Forward Deployed Engineer with 5 years of experience architecting high-performance backend systems, agentic AI workflows, and cloud-native data pipelines. Expert in Python, GenAI, and Data Engineering, with a proven track record of building RAG architectures, orchestrating multi-tool LLM agents (Slack, Google, custom integrations), and deploying production workloads on Kubernetes and GKE. Skilled in bridging client data needs and scalable technical solutions through SQL, ETL workflows, and ML models running on resilient, containerized infrastructure.

🧠 SKILLS

Programming Languages

Python, Go, Rust

Cloud and Infrastructure

Kubernetes, GKE, Google Cloud Platform, Docker, CI/CD (GitHub Actions), Linux, Nginx, Infrastructure Monitoring & Observability

Data Engineering

ETL Pipelines, **Pandas**, NumPy, Data Cleaning & Normalization.

GenAI & Machine Learning:

Agentic AI Systems, LLM Orchestration, Microsoft AutoGen, Retrieval-Augmented Generation (RAG), Tool Use / Function Calling, Vector Databases, Prompt Engineering & Evaluation

Backend Systems

FastAPI, Django, PostgreSQL, Redis, Kafka, RabbitMQ, REST APIs

📁 PROFESSIONAL EXPERIENCE

Gearsparks, Forward Deployed Backend Engineer

October 2025 – Present

- I architected the backend infrastructure for a **multi-agent orchestration platform**, integrating **Microsoft AutoGen** to enable autonomous agents.
- I engineered **real-time API connectors** to securely fetch and structure live context from **Slack and Google**, enabling agents to act on dynamic user data.
- I implemented **RAG (Retrieval-Augmented Generation)** systems using **FastAPI** and Vector Databases to ground LLM responses in user-specific context.
- I also led the backend engineering and deployment strategy for the official MVP launch, ensuring high availability and scalable architecture.

Gearsparks, BookRion Technical Lead

January 2026 – Present

Lead technical development and maintain comprehensive codebase oversight for the BookRion platform, ensuring robust architecture and scalable performance.

- Manage end-to-end technical responsibilities, driving the engineering lifecycle and coordinating various integrations.

Starix, Lead Backend | Data Engineer

September 2025 – February 2026

- Built a **social media data ingestion pipeline** to track creator performance across multiple platforms (Instagram, Youtube, TikTok).
- Implemented a custom **scoring algorithm** to normalize diverse engagement metrics into a unified, fair leaderboard ranking.
- Architected a secure **payout orchestration system**, ensuring accurate financial distribution to winners based on algorithmic results.

Glintplus, Backend Engineer

May 2024 – January 2025

- Architected and implemented scalable RESTful APIs using **Django Rest Framework**, supporting 300+ active users.
- Optimized SQL queries and database indexing, reducing response times for data-heavy research endpoints.
- Led DevOps automation for server provisioning, improving deployment reliability using Linux and Nginx.

Freelance, Software Engineer

2021 – 2023

- Delivered full-stack web solutions for diverse clients, managing the entire lifecycle from requirement gathering to deployment.

RELEVANT EXPERIENCE

Team Lead, Nuesa Tech Community, Funaab.

May 2023 – December 2024

- **Co-founded** the NUESA Tech Community at FUNAAB, fostering a collaborative ecosystem for engineering students.
- **Led planning and execution** of internship and upskilling initiatives, connecting 50+ students to real-world opportunities.
- **Established** an internship forum and curated monthly tech talks, encouraging peer-driven learning and industry collaboration.

Web Backend Development Instructor, NUTEC funaab

May 2023 – December 2024

- **Designed and delivered** an intensive web backend curriculum covering **Python, Bash scripting**, and **Git/version control**.
- **Mentored** 30+ students through project-based learning, guiding them from basic scripting to deploying backend APIs.
- **Simplified complex backend concepts** (e.g., routing, authentication, database models) to support learners of diverse backgrounds.
- **Facilitated hands-on sessions**, enabling students to build and deploy real-world backend services.

CERTIFICATES

Software Engineering 

Alx Africa

PERSONAL PROJECTS

Kyle , Research Agent

Kyle is a research agent which is able to plan and conduct research at the request of a user and generate well formatted documents as its output

FireAutoML

Automated Machine Learning & ETL Library | Python, Pandas, Scikit-learn, Flask

- **Engineered a configurable ETL pipeline** that automates data cleaning, feature normalization, and categorical encoding, explicitly handling class imbalance via SMOTE/ADASYN strategies before model training.
- **Architected a dual-interface system (CLI & REST API)** that exposes the full ML lifecycle—from data ingestion to model serialization—allowing backend systems to trigger training jobs programmatically.
- **Implemented an automated reporting engine** (ModelEvaluator) that generates self-contained HTML reports with embedded ROC curves and confusion matrices, enabling immediate visual assessment of model performance.

Swiftdeploy

Model-to-Web Serving Framework | Python, Flask, Jinja2

- **Built a dynamic HTML generation engine** (MarkupModel) that parses Python dictionaries to algorithmically construct semantic HTML5 forms, effectively abstracting the frontend layer for ML engineers.
- **Developed a generic Flask wrapper** that dynamically routes requests to arbitrary model inference functions, enforcing strict input validation based on the model's defined schema before execution.

Shinzoku

High-Performance Rust Backend Tools: Rust, Solana SDK, Next.js

- Engineered a low-latency game backend using **Rust**, optimizing memory safety and execution speed for a Web3 PvP auto-battler.
- Integrated **Solana** wallet authentication and handled complex state management for dynamic character systems.

SIGNAL

A multi-stage agentic recommendation pipeline built in Go, featuring dense vector retrieval, a quality gate layer, and a cultural voice humanizer.

EDUCATION

Mechatronics Engineering
Federal university of Agriculture Abeokuta

January 2021 – May 2025

Software Engineering, ALX Africa

January 2023 – March 2024