

AY Y U B R A J I

Frontend Engineer • Backend Engineer • AI Engineering Trainee

Lagos, Nigeria

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PROFESSIONAL SUMMARY

Full-stack engineer with strong experience building **modern frontend applications, scalable backend systems, and AI-powered features**. Skilled in **Next.js (App Router), TypeScript, TailwindCSS, and FastAPI**, with a growing specialization in **AI engineering**, including LLM integration, vector search, and retrieval-augmented generation (RAG).

Currently advancing into **AI system design**, focusing on prompt engineering, embeddings, retrieval pipelines, and custom AI architectures. Known for fast learning, strong ownership, and delivering clean, end-to-end solutions across frontend, backend, and AI layers.

CORE SKILLS

Frontend Engineering

- Next.js (App Router), React
- TypeScript, JavaScript
- TailwindCSS, ShadCN/UI
- Responsive UI development
- API integration (Axios)
- Component-driven architecture

Backend Engineering

- FastAPI, Python
- MongoDB
- Pydantic models
- CMS-style backend architecture
- REST API design

- Authentication & authorization

AI Engineering & Machine Learning

- LLM integrations (OpenAI, LiteLLM, LangChain)
 - Vector search, embeddings, RAG pipelines
 - Prompt templates, structured output, metadata extraction
 - Custom AI chatbot systems (pure Python)
 - Memory systems, synonym/antonym logic
 - Model loading and inference modules
 - N-Atlas experimentation for reasoning workflows
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RECENT AI ENGINEERING TRAINING

Generative AI Engineering Track (2025)

- Built end-to-end model pipelines using OpenAI APIs and N-Atlas
 - Implemented embedding and retrieval workflows for RAG systems
 - Studied LLM reasoning, context structuring, and prompt frameworks
 - Designed a **pure-Python AI system** featuring:
 - Long-term memory engine
 - Synonym and antonym logic
 - Sentence mood and intent detection
 - Contextual learning mechanisms
 - Deepened understanding of:
 - Tokens, parameters, and scaling limits
 - Quantization and inference optimization
 - Currently working on **safe, structured medical prompt systems**, including:
 - Symptom extraction
 - Nigerian language support
 - Risk and condition classification
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PROJECT EXPERIENCE

Rajtronix CMS — Full Backend Overhaul

Backend Engineer | 2024 – 2025

- Designed and implemented a complete CMS backend using **FastAPI and MongoDB**
- Built scalable APIs for managing projects, products, blogs, and trainees

- Applied clean architecture principles and reusable Pydantic models
 - Focused on maintainability, extensibility, and performance
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FinTrack-Style Dashboard

Frontend Engineer | 2025

- Built a polished, responsive financial dashboard UI
 - Implemented strict design requirements using **Next.js**, **TailwindCSS**, and **TypeScript**
 - Focused on layout precision, component reusability, and UX clarity
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CulturaMed — Intelligent Health Interface (AI-Powered)

AI & Backend Contributor | 2025

- Designed medical prompting logic for symptom interpretation
 - Built structured AI outputs for:
 - Conditions
 - Risks
 - Recommended tests
 - Contributed to multi-language auto-detection design
 - Integrated **N-Atlas** for clinical reasoning experimentation
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WORK EXPERIENCE

Software Engineer (Full-Stack) — Freelance

2022 – Present

- Delivered full-stack solutions including dashboards, CMS systems, and AI-assisted applications
 - Optimized web applications for performance, UX clarity, and scalable architecture
 - Integrated AI pipelines and vector search into production-ready APIs
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EDUCATION

NCE (Completed)

Osun State College of Education, Ila-Orangun, Osun State, Nigeria

B.Sc (In Progress)

Self-directed studies in Computer Science, Software Engineering, and Artificial Intelligence

TECH STACK

- **Frontend:** Next.js, React, TypeScript, TailwindCSS, ShadCN/UI
 - **Backend:** FastAPI, Python, MongoDB, Pydantic
 - **AI:** OpenAI API, N-Atlas, embeddings, prompt engineering, vector DB concepts
 - **Tools:** Git, VS Code, Postman, Thunder Client, Figma
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ACHIEVEMENTS

- Built a working **linear regression algorithm from scratch** using raw mathematical formulas
 - Approved for an **AI competition submission** (Awarri Developer Challenge)
 - Designed a **multi-file AI memory architecture** from scratch
 - Regularly trains others (Zara — coding program)
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AVAILABILITY

Open to **full-time**, **contract**, or **remote** roles in:

- Frontend Engineering
- Backend Engineering
- AI Engineering