

Ayotomide Aina

ayotomideaina@gmail.com | linkedin.com/in/ayotomide-aina | tomide.dev | github.com/tomideo1

Lagos, Nigeria - Remote (UTC+1)

PROFESSIONAL SUMMARY

Senior Software Engineer with 7+ years of experience, specializing in building scalable, AI-powered web platforms across robotics, fintech, and SaaS. Proficient across the full stack with React, Next.js, TypeScript, Node.js, and Python (FastAPI), and experienced in designing production LLM and agent systems, real-time distributed services, and the polished interfaces on top of them. Comfortable owning systems end to end, from data layer to deployment, and known for turning manual workflows into reliable, self-running automation. A detail-oriented and independent engineer who takes ownership of delivery while leading and collaborating across product and engineering teams.

CORE COMPETENCIES

- React & Next.js
- TypeScript & Node.js
- Python & FastAPI
- AI Agents & LLM Systems
- RAG & Vector Search
- Real-Time & Distributed Systems
- Full-Stack Architecture
- Workflow Automation

SKILLS

Languages: Python, TypeScript, JavaScript, SQL, PHP

AI / ML: LLMs (Claude, OpenAI, Gemini), RAG, AI agents (LangGraph, MCP), embeddings & vector search (LanceDB, pgvector), evals (LangSmith), provider-agnostic LLM routing

Frontend: React, Next.js, Vue/Nuxt, TipTap/ProseMirror, Three.js, Tailwind CSS, Material UI, Ant Design, Bootstrap, Figma handoff

Backend: FastAPI, Node.js, NestJS, Django, Laravel, REST & GraphQL, microservices

Databases: PostgreSQL, Supabase, MongoDB, DynamoDB, Redis, Elasticsearch

Automation & Infra: n8n, Celery, event-driven systems (Redis, AWS SQS, webhooks), AWS (Lambda, S3, EC2, AppSync), Docker, CI/CD, Vercel

WORK EXPERIENCE

TNKR

May 2025 - Present | Remote

Founding Engineer

Robotics documentation and developer-experience platform aggregating millions of robot developers worldwide.

- Primary engineer on TNKR's **Next.js 15 / React 19** product dashboard and public documentation experience, now serving **40,000+ users**, on a dual MongoDB + Supabase/Postgres backend with row-level multi-tenancy.
- Designed a crash-resilient, race-safe notification and real-time fanout pipeline (outbox pattern): atomic claim/drain over MongoDB, transient-vs-permanent failure classification with exponential backoff, MongoDB change streams with resume tokens for exactly-once delivery, and Redis-backed WebSocket fan-out.
- Architected a real-time collaborative documentation editor with **35+ custom ProseMirror/TipTap extensions** (nested docs, bill-of-materials tables, wiring diagrams, embedded 3D viewers) and multiplayer editing via Yjs CRDTs, packaged as a reusable TypeScript library.
- Built the flagship 3D assembly-instruction animator that turns CAD models into step-by-step animated build sequences in the browser (Three.js), paired with Claude-driven extraction that auto-generates the steps from uploaded engineering docs.
- Designed the Python/FastAPI core service powering real-time notifications, Celery-based GitHub and Onshape CAD sync, and an in-editor AI build copilot using multi-source retrieval with LLM query routing and resilience patterns (retries, rate limiting, circuit breakers).

Fluna

Mar 2022 - May 2025 | Remote

Senior Software Engineer

Trade-finance startup; a debt and equity investment platform for African businesses.

- Built the core investor platform on AWS (Amplify, AppSync GraphQL, Lambda, DynamoDB, Cognito) - an internal tool serving **~200 investors across a monthly investment cycle** - covering the full investment lifecycle, a multi-currency (USD/NGN) interest and renewal engine, DocuSign signing, and KYC via SmileID/Metamap.
- Built an automated company-research and deal-sourcing pipeline (React intake app + n8n workflows) that **raised throughput from 10-20 to 80-90 companies sourced per day**, replacing a manual due-diligence process.
- Led the re-architecture from DynamoDB/Lambda to Supabase/Postgres (Deno edge functions, row-level security, dual-environment data migration), cutting infrastructure cost and improving scalability, maintainability, and readiness for newer frameworks; built the admin reconciliation dashboard.
- Designed a secure, database-agnostic wallet and payments service integrating third-party providers (Providus, VertoFx) through resilient, idempotent webhooks powering deposits, withdrawals, and FX.

MyPatricia

May 2021 - Mar 2022 | Lagos, NG

Frontend Engineer

Crypto fintech - buy/sell/OTC trading.

- Cut page-load times ~25% via lazy-loading, code-splitting, image optimization, and critical-CSS inlining; implemented accessibility standards.
- Built headless-CMS (Contentful) React frontend architectures that reduced release cycles ~30%.

Hostville

Mar 2019 - Jun 2021 | Lagos, NG

Full-Stack Engineer

- Led and mentored a team of engineers - training them on Laravel - to design and launch a Learning Management System for EDC Nigeria, a third-party client (Vue.js, TypeScript, Laravel, AWS).
- Co-built an open-source data-collection library (React, TypeScript, Laravel) for public-sector data analysis.

PROJECTS

Astrid - Multi-tenant AI agent platform

Architected a budget-aware, multi-provider LLM router with cost-based fallback and capability-triggered escalation - routing across Claude, Kimi K2, and other models via OpenRouter, degrading gracefully under budget or provider failures, and enforcing per-user and per-tenant spend limits. Built durable agent workflows on LangGraph with Postgres checkpointing (state survives crashes and restarts), intent-based single-agent vs. multi-agent routing, permission-enforced skill and tool registries, and RAG retrieval over pgvector.

Python, FastAPI, LangGraph, pgvector

EDUCATION

B.Sc. Computer Science - University of Lagos

2019