Adedipe Oluwatobi

Senior Full-Stack & AI Engineer

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I build multi-agent systems that actually ship – tool-calling architectures, streaming conversations, and APIs that help AI models understand domain context without hallucinating. My work spans the full stack: React interfaces that make complex AI feel simple, backend systems that keep agents grounded in real data, and the orchestration layers that tie it all together. I'm most energized when I'm turning "the AI could theoretically do this" into "users are doing this right now."

Core Technical Expertise

Frontend Development & UI Engineering

- React/React Native architecture • Component system design • State management (Redux, Context) • Performance optimization • Responsive design • TypeScript • Modern CSS frameworks

Backend & Database Development

- API design and optimization • Database schema design • Microservices architecture • Real-time data processing • System integration patterns • Performance monitoring • Security implementation • Scalable backend solutions.

AI / ML Stack

- LangChain • Flowwise • Google Cloud Platform • AWS • Container orchestration • CI/CD pipelines • Scalable deployment strategies Vector DBs (Pinecone) • Hugging Face • FastAPI

Technologies: React, React Native, Next.js, Python, Node.js, JavaScript/TypeScript, Redux, Tailwind CSS, HTML/CSS, SQL, MongoDB, Docker, PostgreSQL, Redis, Google Cloud Platform, AWS

Professional Experience

Senior Full-stack / AI Engineer – AI Work

September 2025 - Present

- Built a tool-calling dispatch system where the AI chat assistant outputs TOOL->ToolName|prompt strings that get intercepted client-side and routed to specialized sub-agents (Flowise flows) for tasks like invoice creation, journal entries, and SQL queries against accounting data.
- Designed LLM-friendly API endpoints(tools) with self-discovery schemas, semantic context about what the numbers mean (balance sheet = point-in-time vs P&L = period flow), and built-in usage hints – so AI models can query financial indicators without hallucinating what "gross margin" means
- Implemented org/user-level model access gating – middleware that checks subscription tier, org membership, and explicit model assignments before letting requests through to specific AI products (Orion, Luca, Freddie, etc.)
- Implemented comprehensive error handling and structured logging across the multi-agent backend, with monitoring dashboards to track tool call success rates and latency
- Wired up a multi-agent accounting backend where LLM requests can preview ledger entries before execution, resolve accounts by role (trade receivables, COGS, inventory), and handle cash vs invoiced flows with locked accounts that the AI can't accidentally override

Senior AI Product Engineer(Web and Mobile) - Lafarge

Jan 2024 - Present

- Built a multi-agent logistics system using LangGraph where autonomous agents monitor plant operations, rank trucks for dispatch, and answer natural language queries - all streaming their reasoning in real-time so users can see exactly what the AI is thinking
- Designed streaming UI that shows tool calls and reasoning incrementally—tested with users and iterated based on feedback to reduce perceived latency and increase trust in AI outputs

- Collaborated with product and operations teams to translate logistics domain knowledge into 45+ AI-callable tools, iterating on tool schemas based on real-world usage patterns.
- Wrote a custom LangChain adapter for Anthropic models on Vertex AI to make Claude work seamlessly with the LangGraph orchestration layer, with fallback chains to Gemini when needed.
- Built observability into the agent system with PostgreSQL-backed checkpointing, enabling debugging of interrupted conversations and tracking agent decision paths.
- Built the data pipeline in Go that processes truck location events in batches (10 workers, advisory locks, journey stitching), feeding the analytics that the AI agents query - because the agents are only as good as the data they can access.

AI Product Engineer - Caden

Jan 2023 - Dec 2023

- Architected and built a React frontend for a RAG system integrated with Node.js APIs, creating an intuitive interface that turns complex AI template workflows into simple one-click email generation experiences
- Designed and implemented Node.js backend services for template processing and AI integration, building robust APIs that handle complex data workflows while maintaining optimal performance
- Developed user-friendly Next.js components that simplified template uploading processes through streamlined API interactions, reducing user friction and making complex AI capabilities accessible to non-technical users

Full-stack Engineer(Web and Mobile) - Gavel GmbH(YC 2021)

Jul 2021 - Oct 2022

- Developed React and React Native components integrated with Node.js streaming services, building interfaces that handled up to 10,000 users with hundreds to thousands watching live auctions simultaneously
- Architected and maintained Node.js backend services for a real-time video streaming platform, ensuring robust performance and seamless data flow during high-traffic live auction events with complex user interactions
- Built cross-platform mobile and web interfaces using Redux for state management, maintaining consistent performance and real-time updates through optimized Node.js API integrations during peak concurrent user sessions
- Rapidly iterated on full-stack features in a fast-paced Y Combinator startup environment, developing both React components and Node.js services as product requirements evolved week by week
- Implemented complete end-to-end features, including messaging interfaces, search functionality, and Stripe payment flows, creating seamless user experiences across web and mobile platforms powered by scalable Node.js backend architecture

Frontend Developer - Portee

Aug 2020 - July 2021

- Independently developed two complete React Native mobile applications, designing and building over 100 screens with complex navigation patterns and smooth user flows
- Implemented secure authentication interfaces and real-time data sync using Auth0 and Firebase, creating seamless login experiences and instant data updates across devices
- Delivered high-performance mobile applications with offline capabilities, building interfaces that work smoothly even without an internet connection, and providing clear feedback to users about sync status

Education & Certifications

Education

B.Eng. Mechanical Engineering
Bells University of Technology, 2017

Certifications

Udacity React Nanodegree (2020)