ALEX ARIZA HERRERA

Software Engineer | Full-Stack + AI | LLMs & RAG

Based in Colombia | Remote-First & Onsite Opportunities | arizah2020@gmail.com

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Professional Summary

AI Product Builder focused on shipping end-to-end features for LLM/RAG products. Builds from zero to MVP: authentication, frontend, backend, data pipelines, embeddings, vector search, and prompt-grounded responses with citations. Highly hands-on, learns fast, and optimizes for real outcomes over theory.

Projects & Experience

AI Internal Knowledge Copilot — RAG Pipeline   Demo | GitHub

Developed an AI copilot that delivers verifiable, citation-grounded answers from internal/legal documents.

- Built an end-to-end MVP (Next.js frontend, Node.js backend, PostgreSQL/Prisma) with authentication and document ingestion.
- Finished the MVP in 3 weeks and optimized retrieval relevance through structured metadata and adaptive chunking.
- Implemented RAG workflow with embeddings & vector search to ground LLM outputs in uploaded content.
- Designed a retrieval pipeline (chunking, normalization, metadata) to boost relevance & reduce hallucinations.
- Managed lifecycle: feature planning, Git workflow (branches, PRs), environment setup, iterative updates.

Stack: TypeScript, Next.js, React, Node.js, Nest.js, PostgreSQL, Prisma, Docker, AWS, LangChain, OpenAI API

Additional Projects

- **AI Caloric Estimator — Computer Vision + Embedded AI Prototype**
  - Built a hardware prototype using an ESP32-S3, weight sensor, and computer vision to estimate calorie count from food images, integrating OpenAI API + C++/FreeRTOS client + Node/Express backend.
  - Reduced caloric estimation error from >100% (manual/common apps) to ~10% in non-complex meals through image + weight data fusion.

- **ChatterBox — Real-Time Team Communication Platform**
  - Slack/Discord-style web app built with React + TypeScript, Node.js/Express, and MongoDB, enabling user authentication (JWT, bcrypt, Argon2), public channels, and real-time messaging.
  - Implemented persistent chat history and message delivery with WebSockets for a live collaboration experience.

Education

Universidad de los Andes, Electronic Engineering Degree	Aug 2019 – Jun 2024
The University of Texas at Austin, Certificate in Full Stack Software Development: Building Scalable Cloud Applications	Nov 2024 – Oct 2025

Skills

Python / Typescript	LangChain / LangGraph
Next.js / React	PostgreSQL / MongoDB
FastAPI / Nest.js	Docker / Git / GitHub Actions
AWS	Prisma / SQLAlchemy