Luis Andrade

AI Engineer | LLM Applications, RAG & AI Agents | Python, TypeScript

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SUMMARY

AI Engineer with 9+ years of software engineering experience shipping production systems for U.S. and LATAM companies, focused on LLM-powered products: retrieval-augmented generation (RAG), AI agents with tool use, evaluations, and the data pipelines behind them. Combines Python data engineering with full-stack TypeScript (Node.js, NestJS, Next.js, React) to take generative AI features from prototype to production. Built a multi-agent chat and voice AI system handling 1,200+ interactions per month with 98% accuracy, cutting operational workload by 78%. Has led teams of up to 5 engineers and drives AI-assisted development (Claude Code, GitHub Copilot) across teams.

SKILLS

AI / LLM: Large Language Models (LLMs), Generative AI, RAG, AI Agents, Multi-step Agent Workflows, Tool Use / Function Calling, Multi-LLM Orchestration, Model Context Protocol (MCP), Voice AI, Speech-to-Text (STT), Text-to-Speech (TTS), Prompt Engineering, LLM Evaluation (Evals), Embeddings, Vector Databases, Anthropic Claude API, OpenAI API, LangChain, LangGraph, Claude Code, GitHub Copilot
Languages: Python, TypeScript, JavaScript, SQL
Backend & Data: Node.js, NestJS, Express, Django REST Framework, REST APIs, GraphQL, Microservices, Event Pipelines, Data Modeling, PostgreSQL, MongoDB, FreePBX / VoIP
Frontend: React, Next.js, React Native, Stencil.js, Microfrontends (Module Federation), Design Systems
Cloud & DevOps: AWS (Lambda, ECS/Fargate), Serverless Framework, Docker, CI/CD, GitHub Actions, GitLab CI, Git, Unit & E2E Testing, Code Review

AI PROJECTS

Conversational & Voice AI Agent Platform - Kavrentech
LangChain, Multi-LLM Orchestration, RAG, PostgreSQL vector extension, MCP, Speech-to-Text, Text-to-Speech, FreePBX / VoIP

- Built an agentic AI system with a chat agent and a voice agent that let a medical center's users book and reschedule appointments, ask about products and services, and purchase from the product catalog.
- Handled 1,200+ user interactions per month and booked or rescheduled 400+ appointments in production with a 98% task accuracy rate, reducing operational workload by 78%.
- Designed multi-agent orchestration with LangChain, routing tasks across different LLMs, with retrieval-augmented generation (RAG) over PostgreSQL using a vector extension.
- Developed the voice agent with a speech-to-text / text-to-speech pipeline and Model Context Protocol (MCP) tool integrations, connected to the phone system through a custom-built telephony harness on FreePBX.

PROFESSIONAL EXPERIENCE

Senior Full Stack Engineer - BairesDev
Contract, Remote (U.S. clients) | Jan 2024 - May 2026

- Designed and built the core behavioral analytics service in Python for Spotter, with data modeling pipelines that process and analyze user activity at scale across the platform.
- Architected domain-optimized data models to capture, normalize and query high-volume user interaction events, enabling reliable downstream analytics and machine learning (ML) use cases.
- Defined event schemas with data and product teams to guarantee consistent data capture and production reliability; optimized query performance and pipeline throughput, reducing processing latency for core analytics workflows.
- Built a shared AI-assisted UI component library (Stencil.js, React) for Red Ventures (Spectrum), integrating backend systems with agent-facing and customer-facing interfaces for service transfers and plan sales.

- Applied AI-powered developer tooling (Claude Code, GitHub Copilot) to accelerate component scaffolding, enforce design system consistency and improve team productivity.

Senior Full Stack Engineer - Kualty

Full-time, Remote | Jul 2023 - Dec 2023

- Developed a low-code platform with a drag-and-drop UI builder, CRM backend and CLI; built React components driven by a DSL and performant API endpoints.
- Created Docker images on AWS Fargate to compile customer-defined JavaScript functions across Node.js versions; maintained CI/CD pipelines in GitHub Actions and GitLab.

Senior Full Stack Engineer - Treinta

Full-time, Remote | Dec 2022 - Jun 2023

- Led the design and implementation of a microfrontend architecture (Next.js, Module Federation) and microservices (NestJS, GraphQL) for a B2B e-commerce platform, increasing team autonomy and scalability.
- Improved platform performance and reliability with unit and end-to-end tests; mentored engineers through technical documentation and sessions.

Senior Software Developer - Rootstack

Full-time, Remote (U.S. clients) | Oct 2021 - Dec 2022

- Built a real-time geolocation system for a React Native application; delivered serverless backends with AWS Lambda and the Serverless Framework, plus NestJS and GraphQL APIs.

Software Engineer - IMUKO

Full-time | Jun 2021 - Aug 2022

- Led development of an application that analyzed real-time sensor data with algorithms to detect poor posture and deliver live feedback to users (React Native, NestJS, AWS).

Senior Software Engineer - KIERO Novedades

Full-time, Bogotá | Apr 2020 - Feb 2021

- Led a team of 2 developers building a drag-and-drop web page builder and a parser that translated JSON into JSX components (React, Django REST Framework, PostgreSQL, AWS).

Technical Lead / Full Stack Developer - buenaPeople

Full-time, Bogotá | Feb 2019 - Feb 2020

- Led a team of 5 developers maintaining and evolving a React Native home-services application; built UI components and Express/NestJS APIs; ran code reviews and Scrum ceremonies.

Full Stack Developer - Symplifica; Full Stack Engineer - CreativeNerd Agency; Freelance Software Developer

2017 - 2020

- Built RESTful microservices (Django REST Framework, PostgreSQL) and led a frontend migration from Symfony to React; delivered web and mobile products for multiple clients.

CONTENT & COMMUNITY

Publishes software engineering and AI content on YouTube (youtube.com/@luisandrademe), including Claude Code and Node.js topics.

LANGUAGES

Spanish (Native), English (Professional working proficiency)