

FERNANDO MELLONE

Senior Full-Stack Engineer · Applied AI · 5+ years
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SUMMARY

Senior full-stack engineer with 5+ years across international startups in the US, Argentina, and Paraguay, focused on applied AI and shipping LLMs to production since 2022. Specializes in integrating LLMs into real workflows — from conversational bots and RAG pipelines to autonomous agents — with a founding-engineer track record of owning systems end-to-end and driving adoption inside organizations. Fluent across frontend, backend, data, and cloud; currently combining product strategy with technical execution as Entrepreneur in Residence.

SKILLS

Applied AI	OpenAI APIs, Google Gemini, Anthropic Claude, LangChain, LangGraph, RAG, vector DBs (Pinecone, ChromaDB), agents, fine-tuning (Hugging Face), WebLLM, YOLO, prompt engineering
Automation	n8n, LangGraph agents, WhatsApp/Telegram bots, webhook pipelines, task orchestration
Languages	TypeScript / JavaScript, Python
Frontend	React, Next.js, React Native
Backend & Data	Node.js, Express, Flask / FastAPI, Prisma, PostgreSQL, MongoDB
Cloud & Other	AWS, Firebase, Hexagonal / Clean architecture, Agile / Scrum, Blockchain / Web3

EXPERIENCE

Entrepreneur in Residence / Product & AI Strategy — *InzaiQ* Apr 2026 – Present

Wyoming, US (remote)

- Building and validating AI-native products across client engagements — including a real estate tokenization platform (ERC-3643 / Polygon) and internal AI tooling for operations and reporting.
- Owning end-to-end execution: discovery and scoping, architecture, LLM integration, and delivery to non-technical stakeholders.
- Rapid-prototyping MVPs and iterating based on client feedback; acting as both product and engineering lead.

Founding Engineer — *Autograph (NFX-backed)* Apr 2025 – Mar 2026

San Francisco, US (remote)

- First engineer at a consumer AI startup building Walter, an AI voice interviewer for life-story preservation; owned full-stack product development from day one.
- Integrated ElevenLabs, Twilio, and Deepgram for real-time voice synthesis, telephony, and transcription on a Next.js / Vercel stack — LLMs in production from launch.
- Designed conversational AI flows end-to-end; collaborated closely with founders to translate product vision into shipped features fast.

Software Engineer — *VeXtar* Sep 2024 – Mar 2025

Paraguay (remote)

- Designed and shipped Next.js applications end-to-end for international clients; modeled relational schemas with Prisma / PostgreSQL on AWS.
- Ran requirements gathering and Jira-based delivery directly with stakeholders.

Senior Software Engineer — *Data Voices* Apr 2024 – Sep 2024

Argentina (remote)

- Built and deployed RAG pipelines, generative AI, and computer-vision (YOLO) features on AWS EC2 for an early-stage product.
- Integrated conversational bots for WhatsApp and Telegram, connecting them to internal workflows — direct analogue to the automation scope this role requires.
- Implemented Google Calendar integrations and backend services in Node and Python.

Senior Software Engineer — *Aplicable AI (500 Startups LatAm / Platanus alumni)* Dec 2023 – Sep 2024

US (remote)

- First engineer; shipped OpenAI / GPT agents, LangChain pipelines, and RAG for production users — including client-side LLM inference with WebLLM.
- Built SSR web apps and Chrome extensions with SvelteKit + TailwindCSS + Firebase; delivered AI features with real adoption metrics.

Senior Software Engineer · Team Lead — *Penguin Lab* Aug 2022 – Oct 2023

Paraguay

- Led engineering for German client projects; owned requirements, architecture choices, and Jira delivery for the team.
- Stack across React, SvelteKit, Flutter, Node, Python / Flask, PostgreSQL, MongoDB, Pinecone, OpenAI, and LangChain.

Software Engineer · Bootcamp Instructor — *Penguin Academy* Nov 2021 – Jul 2022

Paraguay

- Taught Python and web fundamentals to ~100 students; coached teams to 1st and 2nd place in multiple hackathons.
- Led a Python workshop at Campus Party (major regional tech event).

Frontend Developer — *GoStats* Jun 2020 – Sep 2021

Mexico (remote)

- Built Vue / Nuxt sports-analytics interfaces serving an international user base.