

Miguel Angel Jiménez Ochoa

Senior Full-Stack Engineer · TypeScript, Node.js, Python/FastAPI, React/Next.js · Event-Driven Microservices on AWS · LLM Integration and RAG

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PROFESSIONAL SUMMARY

Full-Stack Engineer with 8 years of experience shipping production software for retail, B2B e-commerce, HR tech, and SaaS platforms. I currently lead a team of 2 to 4 developers, own architecture decisions (Clean Architecture, microservices, event-driven services), and have integrated AI models (Claude, Gemini, OpenAI) into 4+ production applications. My backend production work is TypeScript-first, with Python in production from 2018 to 2022 at H3S and again from 2024: a FastAPI multi-provider LLM service, a retrieval-augmented generation (RAG) module I wrote in order to teach it, and a document-extraction engine. I also design analytical data models in SQL and dbt (data build tool) on PostgreSQL. Founder of 2 SaaS products built end-to-end. Core stack: TypeScript, Node.js, Python, React/Next.js, PostgreSQL, and AWS.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, SQL, HTML/CSS

Backend: Node.js, NestJS, Express, Koa, Prisma, Knex, Python (FastAPI, Pydantic, httpx, uvicorn), REST API design, microservices, event-driven services and async job queues (BullMQ, Redis, RabbitMQ)

AI: Anthropic Claude (SDK, Bedrock, Agent SDK), Google Gemini, OpenAI, multi-provider LLM abstraction, RAG (hybrid retrieval with dense HNSW over pgvector plus lexical GIN search, RRF rank fusion, cross-encoder reranking, context budgeting, citation parsing, RAGAS evaluation), embeddings and vector search, parallel LLM request pipelines

Frontend: React, Next.js (App Router), React Native, Redux, Zustand, Tailwind CSS, Astro, Vue 3

Databases: PostgreSQL, MySQL, MongoDB, Redis, pgvector

Cloud & Infrastructure: AWS (EC2, S3, Lambda, RDS, SES, Bedrock), GCP, Docker, Terraform, CI/CD, Ubuntu Server, n8n

Data & Analytics: dbt (data build tool), analytical data modeling, multi-CTE SQL, PostgreSQL FDW, OLTP-to-analytics pipelines, query optimization and indexing

Payments: Stripe, QuickBooks Online (OAuth2), MercadoPago

Architecture: Clean/Onion Architecture, microservices, event-driven architecture, monorepos (Nx, npm workspaces), micro-frontends

PROFESSIONAL EXPERIENCE

Senior Full-Stack Engineer & Tech Lead
Molt Solutions (formerly Algoritmo)

June 2023 - Present · Remote

- Lead a team of 2 to 4 frontend and backend developers: define technical tasks, set architecture standards, and support delivery across 5+ client projects in production.
- Optimized database queries and parallel request handling against AI APIs for a talent assessment platform with 1,600+ active users and 10,000+ people assessed, reducing report response times.
- Designed the backend of an AI video generation platform using Clean Architecture: an event-driven job pipeline with BullMQ and Redis for long-running generation workflows, Stripe billing, Clerk authentication, and 2 AI providers (Anthropic Claude and Bedrock).
- Built a multi-tenant payment microservice in Express and TypeScript with 2 financial integrations (Stripe and QuickBooks Online via OAuth2), a dual-database design (MongoDB and PostgreSQL), and infrastructure as code with Terraform on AWS.
- Integrated AI models (Claude, Gemini, OpenAI) into 4+ production apps: PDF reports, image tooling, and agent bridge services.

Analytics Engineer, dbt and PostgreSQL
ClickPalm · Agricultural field-operations platform

August 2024 - September 2024 · Freelance

- Set up the dbt (data build tool) and PostgreSQL analytics stack in Docker (dbt-core 1.8, docker-compose, cron) on AWS EC2 inside the production VPC, with a PostgreSQL Foreign Data Wrapper (FDW) exposing 5 OLTP tables to the analytics database.
- Authored the labor-efficiency data model: multi-CTE SQL over 4 dbt sources aggregating field visits into daily and interval productivity metrics per operator and zone. Owned data quality and delivery (schema tests, btree-indexed materialization, execution tags, pull-request review) as majority contributor over a five-week engagement.

Frontend Developer

February 2022 - February 2023 · Remote

Chiper

- Built and maintained React and TypeScript frontend applications for 12 months on a B2B e-commerce platform serving neighborhood stores in 3 Latin American countries, integrating internal APIs and standardizing clean architecture across the new modules.

Full-Stack Software Developer

October 2018 - February 2022 · Bogotá

H3S SAS

- Built and maintained 2 core production systems in PHP, Python, and Node.js over 3+ years, with Python part of the production stack for the whole period.
- Delivered full-stack solutions for 40 months to clients across 3 sectors (retail, IoT, and telecommunications), assessing technical feasibility before implementation and adapting software designed for foreign markets to the Colombian environment through code-level customizations on third-party platforms.

SIDE PROJECTS (SAAS IN PRODUCTION)

Parqando · Parking management SaaS built end-to-end solo: 4 apps (Node.js/Koa API with Prisma and PostgreSQL, Next.js dashboard with NextAuth, Astro landing, React Native app with thermal ticket printing and Twilio SMS), AWS S3 storage.

Secasan · Wedding management SaaS for the Colombian market: automated RSVPs and cash gift collection via MercadoPago, operating across 2 segments (B2B and B2C).

Python Services · FastAPI service with a multi-provider LLM abstraction over Claude, Gemini, DeepSeek and Kimi (Pydantic models, httpx, uvicorn, 13 test modules), plus a Colombian income-tax return engine of roughly 8,300 lines with a document-extraction pipeline (pdfplumber, PyMuPDF, OCR, openpyxl) and JSON-schema validation.

Personal Infrastructure · Ubuntu server with Docker: 30+ containers with CI/CD serving my products, plus local AI models and n8n automation.

TEACHING

Software Development Instructor · a programming academy (Uruguay) · Since 2024. Teaching 2 courses: full-stack JavaScript fundamentals and AI-assisted software development.

- Wrote and teach the production RAG module in Python 3.12 (~93 modules, 19 test files, pytest coverage gate failing under 90%): hybrid retrieval with dense HNSW over pgvector plus lexical GIN search, RRF rank fusion, cross-encoder reranking, context budgeting, citation parsing, a RAGAS evaluation harness, and Docker Compose.

EDUCATION & CERTIFICATIONS

- **SENA**: Software Programming Technician
- **freeCodeCamp & Platzi**: JavaScript Algorithms and Data Structures; Frontend Developer, Software Engineering, Git/GitHub, and code best-practices tracks
- **EF SET**: English Certificate, B2 (August 2026)

LANGUAGES

- **Spanish**: native
- **English**: B2, professional working proficiency, certified on the EF SET in August 2026 (cert.efset.org/9QEwRt). I hold hour-long client meetings in English.