Luis Felipe Moraes Nicolau

Senior Full-Stack Engineer · AI Products (TypeScript · Python · LLM/RAG)

Remote from Brazil (UTC−4) · full overlap with US business hours · available full-time · open to contractor engagements
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SUMMARY

Senior full-stack engineer with 12+ years shipping products end to end in TypeScript, React, Node.js and Python, focused lately on LLM/RAG features in production. I recently designed and built a civic-tech platform on my own: 167k+ federal bills, hybrid semantic search on PostgreSQL + pgvector (search latency cut from ~1.85 s to ~8 ms) and a Claude-powered analysis pipeline with cost controls. Comfortable owning ambiguous problems from data model to deploy; previously Tech Lead at Matrix Energia and co-founder/CTO of an edtech product with 100k+ users.

SKILLS

Frontend: TypeScript, React 19, Next.js 15 (Server Components, ISR), Tailwind CSS, Vite

Backend & Data: Node.js/Express, Python/FastAPI, REST, GraphQL (Apollo); PostgreSQL (full-text, pgvector/HNSW, RLS), Redis, MySQL, SQL Server, Neo4j, Firestore

Other languages: C#/.NET 8 (EF Core, Hangfire, SignalR), Java (Spring Boot), Python web (Django, Flask, Jinja templates), Go (basic)

Cloud & Ops: AWS (Lambda, SQS, ECS, EC2, MSK/Kafka), GCP (Cloud Run, Cloud Functions, Pub/Sub), Docker, GitHub Actions, Vercel, Railway, Supabase, Sentry

AI: Anthropic Claude & OpenAI APIs, RAG, embeddings, LangChain, Qdrant, batch inference and LLM cost controls; daily work with Claude Code and Cursor

PRODUCTS I FOUNDED & BUILT

Independent products I built end to end. All are live and need little maintenance, so I am available full-time.

OlhoNaLei (olhonalei.com) — Founder & Sole Engineer 2026 – Present

Nonprofit civic-tech platform tracking Brazil's federal legislation · Python/FastAPI, Next.js, PostgreSQL

- Built the whole platform alone (ingestion pipeline, REST API, AI analysis, frontend, infrastructure), tracking 167,000+ federal bills.
- Wrote a resumable Python pipeline that unifies the Câmara and Senado open-data APIs into one model; a budget-gated backfill recovered 8,300+ missing historical bills.
- Built hybrid search (PostgreSQL full-text + pgvector), then rebuilt the HNSW index with binary quantization and reranking: index from 1.3 GB to 69 MB, latency from ~1,850 ms to ~8 ms on a memory-constrained Postgres.
- Built a Claude analysis pipeline (29,000+ plain-language summaries, fiscal-impact notes, detection of unrelated riders added to bills) using the Message Batches API and monthly budget caps.
- Shipped the public site and admin console in Next.js 15 / React 19 / TypeScript / Tailwind; diagnosed and eliminated a serverless cost blowout of ~39,000 invocations.

SenseComment — Founder & Engineer 2025 – Present

SaaS built on YouTube APIs with Hotmart payments · React, Node.js, GCP/AWS · live, low-maintenance

- Built and ran the product as primary engineer in React, TypeScript and Node.js; grew it to 500+ paying subscribers and $50K+ MRR at peak.
- Ran the backend on GCP (Cloud Run, Cloud Functions, Pub/Sub) and AWS Lambda, with queues and scheduled jobs designed to stay idempotent under retries and concurrent writes.
- Built a RAG support assistant (OpenAI, LangChain, Qdrant) that cut manual support handling by ~60%.
- Worked spec-first with AI coding agents: wrote acceptance criteria, let the agent draft, then reviewed its plan and corrected wrong architecture calls before merging.

EcoDoctor — Founder & Lead Engineer 2023 – 2025

Healthcare payments platform · Manaus, Brazil

- Built the platform in Node.js + TypeScript with payment integrations; it processed R$5M+ in transactions in its first year.
- Designed the MySQL data layer with Redis for caching and queues; ran the services in Docker on AWS (Lambda, SQS, ECS).

EMPLOYMENT

Paneleiro — Founding Engineer 2025 – 2026

Football fan app, live on iOS/Android · first engineer, hands-on · C#/.NET 8, EF Core, Hangfire, SignalR, Redis, MySQL

- Built the .NET 8 Web API behind the mobile app and admin dashboard: Hangfire recurring jobs monitor live matches and push updates to clients over SignalR, with Sportmonks match data, OneSignal push and a highlights pipeline (ScoreBat + FFmpeg + S3).
- Fixed connection exhaustion and duplicate notifications on high-traffic matches by replacing per-user parallel HTTPS calls with batched OneSignal sends, and made the “already sent” flag independent of push failures.
- Added a guard that stops orphaned recurring jobs, data-freshness canaries, and regression tests for production bugs.

The Contract Network — Senior Full-Stack Engineer (AI Applications) 2023 – 2025

Contract via Deel · remote · US company (Georgia)

- Full-stack work on an LLM-based contract-analysis product: Node.js + TypeScript, Apollo GraphQL and Neo4j on AWS.
- Worked with the AI/ML team to wire model outputs into the application and its APIs.
- Built AWS infrastructure as code (Lambda, SQS, MSK/Kafka, ECS) with automated container deploys, and optimized Neo4j read/write paths.

Matrix Energia — Tech Lead / Full-Stack Engineer 2022 – 2024

São Paulo, Brazil

- Led a full-stack team building Node.js services, REST APIs and messaging integrated with AWS and Azure.
- Introduced CI, code review and testing standards that reduced production incidents by ~30%.

Jovens Gênios — Co-founder & CTO 2017 – 2022

Rio de Janeiro, Brazil · edtech

- Co-founded the company and led engineering; the web and mobile apps grew past 100,000 users.
- Chose the stack (Node.js, relational databases, cloud) and the delivery process; the company reached a ~R$100M valuation.

Earlier (2014 – 2018): full-stack and Android developer at Wikki Brasil, Caronaê and Fluxo Consultoria, building web systems, REST APIs and a ride-sharing Android app.

EDUCATION & CERTIFICATIONS

Universidade Federal do Rio de Janeiro (UFRJ), Electronic & Computer Engineering (incomplete), 2012 – 2017. Left to co-found Jovens Gênios.

Harvard CS50 · Udacity Android Nanodegree · Google Project Management

LANGUAGES

Portuguese (native) · English (advanced) · Spanish (intermediate)