

Luis Rodrigo Garcia Garcia

Full Stack Developer · Applied AI · Python · React

LLMs and RAG · Embeddings and semantic search · FastAPI · PostgreSQL · CI/CD · Lima, Peru

(+51) 935 293 701 · rodrigo17312016@gmail.com · [linkedin.com/in/rodrigo-garcia-9621671a1](https://www.linkedin.com/in/rodrigo-garcia-9621671a1) · github.com/rodrigo17312016-jpg

SUMMARY

Full stack developer and Systems Engineer with 5+ years of experience and a focus on applied AI. I build AI solutions that solve real operational problems: automated attendance review with a local LLM and case memory based on embeddings, a tool-calling copilot on the Claude API, voice transcription with Whisper, document reading with OCR, and camera-based vision with multimodal models. I develop Python APIs with FastAPI, React and TypeScript interfaces, and model PostgreSQL and SQL Server databases with complex queries. I am currently the sole technical lead of the digital platform of an agro-export company with two plants: 60+ applications in production used by about 100 accounts.

TECHNICAL SKILLS

Applied AI:	LLMs (Claude and OpenAI APIs), tool-calling and agents, RAG, embeddings (bge-m3, text-embedding-3-small), semantic search with pgvector, prompt engineering with validated JSON output, Ollama (gpt-oss, qwen2.5vl, gemma), Whisper, OCR and vision, open Hugging Face models run locally.
Backend & APIs:	Python (FastAPI, Flask, Django REST, asyncpg, Pydantic, pandas), REST APIs, Node.js (Express, Hono), Deno Edge Functions; C#, .NET Core and Entity Framework Core.
Frontend:	React 19, TypeScript, Next.js 15, Vite, Tailwind CSS 4, shadcn/ui, TanStack Query, Recharts, Angular; offline-capable PWAs.
Databases:	PostgreSQL (data modeling, PL/pgSQL, triggers, row-level security, pgvector; CTEs and window functions), SQL Server (advanced T-SQL), MongoDB, Oracle; versioned migrations and query optimization.
Cloud & DevOps:	GitHub Actions (CI/CD), Azure DevOps, Docker, Kubernetes, advanced Git (branching, rebase, worktrees); Vercel, Cloudflare and Supabase; services and scheduled jobs on on-premise servers.
QA & security:	pytest, Vitest, Playwright; row-level data isolation, JWT and RBAC, secrets in Vault, OWASP Top 10.

PROFESSIONAL EXPERIENCE

Full Stack Developer · Software Architect · IT Lead

Sep 2025 — Present

Frutos Tropicales Perú Export S.A.C. · Huaura (Lima) and Piura, Peru · Fresh and frozen fruit exports

- AI-powered attendance review.** In production since October 2026. Rules that fix clock-in records every minute in an Edge Function with pg_cron; a local LLM (gpt-oss on Ollama) that summarizes and classifies cases every 15 minutes with validated JSON output; case memory based on bge-m3 embeddings that matches each new case to previously solved ones (14 of 14 correctly matched on the first run); a business glossary and precomputed counts to prevent hallucinations; push notifications.
- AI copilot for management.** Agent built on the Claude API with 29 tools that query the database, streaming responses, prompt caching, per-user memory, rate limiting and a semantic search module with OpenAI embeddings and pgvector, deployed on Deno Edge Functions.
- Vision and documents.** Detection of lunch delivery from IP cameras with a local multimodal model (qwen2.5vl) that learns from user feedback and falls back to a cloud model when the local one fails. Pilot for reading PDF shipping guides with text extraction, rules and a vision model, merging results field by field.
- Voice and biometrics.** WhatsApp chatbot in Flask with Twilio that queries stock, temperatures and production, and transcribes voice notes with Whisper. Attendance API in FastAPI with asyncpg, Pydantic, auditing, WebAuthn and 1:N face verification by cosine similarity over 512-dimension ArcFace embeddings, without the image ever reaching the server.
- Platform.** Designed the architecture and took it to production: 60+ applications in React and TypeScript, 14 modules by business area and about 20 services in Python and Node.js, including offline-capable apps on plant phones and tablets.
- Data.** Production database with 11 schemas, 580 tables, 900+ functions and about 700 versioned migrations, with row-level isolation. Optimized a critical query from 8.3 s to 0.25 s and removed 160,000+ sequential scans by fixing function volatility.
- Integration.** Services that sync the SQL Server ERP in real time: staff roster every 5 minutes and valued inventory every 30, reconciled to the cent with the ERP.
- CI/CD, Git and security.** Nine GitHub Actions workflows for deployments, backups and data refreshes; 3,000+ commits; testing with pytest, Vitest and Playwright; security hardening in 11 phases aligned with OWASP Top 10.

Stack: Python · FastAPI · Flask · Claude API · OpenAI · Ollama · Whisper · pgvector · React 19 · TypeScript · Node.js · PostgreSQL · SQL Server · Supabase · GitHub Actions · Playwright · pytest

Data Engineer · ERP Developer

Nov 2024 — Aug 2025

Helpdesk Consulting S.A.C. · Lima · ERP consultancy for mining, engineering, finance and retail clients

- Advanced SQL queries (CTEs, window functions, cross-validations, multi-schema joins) for financial control across multiple corporate databases, relational and MongoDB.
 - Business rules in the Imports, Fixed Assets, Requisitions and Purchasing modules, and automated data-quality checks on bulk loads that reduced rework at month-end close.
 - Tax workflows with SUNAT (electronic invoices and ledgers) and deployment automation with Docker, Kubernetes and Azure DevOps.
- Stack: SQL Server · MongoDB · Docker · Kubernetes · Azure DevOps · Git · XML · SUNAT integration

Backend Developer · Systems Analyst

Oct 2023 — Oct 2024

Métrica · Lima · Commercial and accounting software: e-invoicing and ERP modules

- REST APIs and web services for integrations with ERPs, payment gateways and retail platforms, documented with Swagger; electronic invoicing with SUNAT (XML, digital signature, tax traceability).
 - Optimized SQL Server queries and refactored critical endpoints in Entity Framework Core, removing N+1 patterns.
- Stack: C# · .NET Core · Entity Framework Core · SQL Server · REST APIs · Swagger · Git · SUNAT integration

Data & BI Developer · Internal Systems

Aug 2022 — Aug 2023 · Nov 2024 — Aug 2025

Agro Frost S.A.C. · Huaura · Frozen fruit exporter (two periods)

- Power BI dashboards with operational KPIs and lot-by-lot traceability for BRCGS, HACCP and SENASA audits; advanced SQL Server queries; in the second period, internal web modules and mentoring of junior staff.
- Stack: SQL Server · Power BI · Advanced Excel · BRCGS / HACCP

Full Stack Developer

Jul 2021 — Jul 2022

Materia Gris S.A.C. · Lima · Multi-company management accounting system

- Modules with .NET Core 3.1 + Entity Framework Core and Angular + TypeScript; multi-company financial reports with drill-down; CI/CD on Azure DevOps and schema migration between SQL Server and PostgreSQL.
- Stack: C# · .NET Core 3.1 · Entity Framework Core · SQL Server · PostgreSQL · Angular · TypeScript · Azure DevOps

GITHUB PORTFOLIO

- **fullstack-ai-portfolio**. 20 runnable projects across 8 domains, with synthetic data: APIs with FastAPI and Django REST, a RAG assistant with OpenAI, LLM tool orchestration, local LLMs with Ollama, Hugging Face Transformers, an invoice OCR pipeline, PyTorch, TensorFlow, scikit-learn, MongoDB, PostgreSQL, SQL Server and entity extraction with spaCy.
- **control-pasajes**. PWA that reads Yape and Plin payment screenshots with OCR, totals the day's income and removes duplicates, with no server.

EDUCATION, CERTIFICATIONS AND LANGUAGES

Bachelor of Systems Engineering — Universidad Nacional José Faustino Sánchez Carrión (Huacho, Peru) **Graduated 2021**

Certifications: Data Engineering on Microsoft Azure · Data Engineering on Google Cloud · Databricks Lakehouse · Python for Data Science · PySpark Multicloud.

Languages: Spanish (native) · English (intermediate, B2): fluent technical reading and code review in English.