

HERMANN PAUWELLS RIVERA

Software Engineer | AI/ML · Full-Stack

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PROFILE

Software engineer focused on AI: LLM and agent tooling (Claude Code, Codex, RAG) and machine learning in Python (TensorFlow, FastAPI), plus full-stack TypeScript (React/Next.js, Node.js). Graduating in December 2026 with a Computer Science Engineering degree from Tecnológico de Monterrey; I build AI tools and full-stack apps for real businesses and users.

TECHNICAL SKILLS

Languages: Python, SQL, TypeScript, JavaScript, C++

Machine Learning: TensorFlow, Q-learning, AgentPy

Backend & Data: FastAPI, Flask, PostgreSQL, Supabase, MySQL

Frontend: React, Next.js, Vite

Tools: Git, GitHub, GitHub Actions, Unity

AI & LLM: Claude Code, Codex, LLM APIs (Anthropic, Gemini, Groq, DeepSeek), RAG, Vercel AI SDK

EXPERIENCE

Full-Stack Developer (Freelance) — Juguetería El Arbolito 2026–present

- Building the e-commerce and admin platform for a single-store retailer (catalog, cart, checkout, backend).
- Migrated a 2,395-product catalog from the legacy point-of-sale system (Eleventa) into PostgreSQL/Supabase.
- Integrating Mercado Pago payments and inventory sync between the online store and the in-store POS.

Freelance Web Developer — Client websites 2025–present

- Designed and built a portfolio site for a writer and audiovisual producer (Next.js, React, Tailwind CSS); on Vercel.
- Building a personal landing page for a corporate-compliance lawyer (Astro, React, Tailwind CSS); in progress.

Web Developer (scholarship service) — Ciberistas, Tecnológico de Monterrey 2025

- Fixed bugs and refactored legacy layouts on a youth coding program's web platform (React/TypeScript, Tailwind).

SELECTED PROJECTS

Jarvis — personal AI agent system Personal · TypeScript/Node · Codex SDK · Claude Code 2026

- Local-first control plane for autonomous coding agents: permission policies, secret-redacted audit logs, emergency stop and Codex SDK runs in isolated Git worktrees (30 tests).
- Shared Markdown knowledge graph (Brain) used by Claude Code, Codex and DeepSeek agents across devices; mobile PWA with chat and a 3D memory map.

DreamOS In development · Next.js · TypeScript · IndexedDB · JEV 2026

- Alternate-history web: a retro browser and fictional encyclopedia that generate pages on demand and persist them per player (IndexedDB, Zod-validated commits).
- Optional JEV (TypeSafe) director chooses page types (2.2 s timeout, deterministic fallback); Playwright end-to-end tests.

JesusGPT LLM + RAG · React/Vite · Express · Vercel 2026

- Bible-study chat grounded by retrieval over the Gospels in four languages (EN/ES/LA/GR): only retrieved verses reach the model (Groq Llama 3.3 70B / Gemini, with fallback).

Other projects: Lumina Reservations (WorkHub MTY) · folk-park · HeatShield · Credifiel Challenge (Datathon 2025) · Multi-agent warehouse simulation (RL) · RainLab Northsky · Ojeada (LLM Touch Bar app) · claude-phone & PI3HUB (Claude Code on phone/Pi) · Mildred Pierce (band website) · GateGenius (HackMTY 2025).

EDUCATION

Computer Science Engineering (ITC) — Tecnológico de Monterrey, Monterrey Campus — 2021–2026 · Graduation: December 2026 · Available full-time from January 2027

ACTIVITIES

- SwiftTec Coding Community (2025): hackathons and innovation challenges · Music production (FL Studio).

Spanish — native · English — C1