

HERMANN PAUWELLS RIVERA

Full-Stack Developer | Software Engineer

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PROFILE

Full-stack developer (TypeScript, React/Next.js, Node.js) graduating in December 2026 in Computer Science Engineering from Tecnológico de Monterrey. I build software for real businesses (e-commerce, real-time systems, APIs) and LLM/AI-agent tooling, with experience in C++/JUCE audio and machine learning.

TECHNICAL SKILLS

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

Frontend: React, Next.js, Vite, Tailwind CSS, Three.js

Backend & Data: Node.js, Express, Supabase, PostgreSQL, MySQL, FastAPI, REST, SSE

Tools: Git, GitHub, Docker, Vercel, GitHub Actions, CI, JUCE, TensorFlow, 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

Lumina Reservations (WorkHub MTY)

Academic team project · Node/Express, SSE, React

2026

- Implemented the reservation backend in Node/Express (services, repositories, controllers, migrations) and real-time occupancy updates over SSE.
- Built the floor map and the reservation flow in React/Vite (dashboard, filters, confirmation) with role controls.

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.

RainLab Northsky

Interactive 3D web application · Three.js

2026

- Interactive viewer with animated camera transitions, component views and a Blender/GLB asset pipeline.
- Cut draw calls from 637 to 127 (80%) through mesh batching; rendering pauses when off screen.

folk-park

Personal project

2026

- Wavetable VST3/Standalone synthesizer in C++20 and JUCE with deterministic MIDI generation.
- DSP architecture and automated tests; validated with pluginval strictness 5.

Other projects: HeatShield · Credifiel Challenge (Datathon 2025) · Multi-agent warehouse simulation (RL) · DreamOS · JesusGPT · 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