



# Juan Guillermo Hedderich

Software Engineer | Frontend & AI Specialist

🇪🇺 EU Citizen (Italian Passport) | 📍 Relocating to Berlin, Germany (August 2026)  
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🌐 LinkedIn | 🐙 GitHub | 📁 Portfolio

## Professional Summary

Product-minded Software Engineer with 3+ years of experience specializing in high-performance web applications, shared UI architectures, and AI-assisted engineering workflows. Proven track record of transforming complex operational data into intuitive, scalable frontend structures using React and TypeScript. Expert in leveraging generative AI tools to accelerate code quality and integration pipelines. EU Citizen ready to drive technical excellence in agile cross-functional teams.

## Technical Skills

**Frontend Frameworks:** React, TypeScript, Next.js, Astro, Angular, Tailwind CSS, Shared UI Libraries.

**Backend & AI Engineering:** Python, FastAPI, Node.js, Nest.js, Multi-tenant RAG, Cloudflare Vectorize, MongoDB.

**Tools & Infrastructure:** Git, Cursor, GitHub Copilot, Docker, CI/CD pipelines (GitHub Actions), AWS (S3/ECS), Cloudflare Edge.

**Testing & Languages:** Playwright, Vitest, Jest | Spanish (Native), English (C1), German (A2).

## Featured Project: AI Engineering

**Multi-tenant RAG Conversational Agent** | *Graduation Thesis* 2024 – 2025

- Engineered a **Multi-tenant RAG** application using **FastAPI**, **Cloudflare Vectorize**, and **MongoDB**, converting 5,000+ dense technical records into a streamlined, high-performance web interface.
- Architected an agentic **Human-in-the-loop (HITL)** workflow system that handles automated-to-human delegation seamlessly based on real-time data metrics.

## Professional Experience

**Inmobiliaria Terepaima** | *Software Engineer (Freelance)* Sep. 2025 – Present

- Spearheaded the digital transformation of manual real estate operations by designing and building a centralized web admin dashboard from scratch, increasing company operational efficiency by **50%**.
- Translated complex data management requirements into scalable, reusable React and TypeScript components, reducing feature development iteration times by **30%**.

**Agrotendencia / Agroshow** | *Software Engineer (Freelance)* Feb. 2025 – Aug. 2025

- Led the end-to-end frontend refactor of a complex directory platform, optimizing search and client-side filtering algorithms to reduce latency by **80%** on large datasets.
- Reduced hosting infrastructure costs by **90%** through the strategic implementation of Server-Side Rendering (SSR), Incremental Static Regeneration (ISR), and custom edge caching within a Next.js and Astro ecosystem.

**Avilatek** | *Frontend Engineer* Jun. 2023 – Jan. 2025

- Designed and deployed production-ready web applications for large-scale E-commerce platforms and interactive B2B dashboards, boosting overall user engagement by **25%**.
- Introduced strict automated testing methodologies using **Playwright** and **Vitest** across component libraries, resulting in a **40% reduction** in critical production bugs.

## Education

**Universidad Católica Andrés Bello (UCAB)** Graduated 2025

*B.S. in Computer Engineering (Software Development Specialization)* Caracas, Venezuela

**Colegio San Ignacio de Loyola** 2020

*High School Diploma in Sciences* Caracas, Venezuela

## Interests

Swimming, cooking and music playing.