Jorge Romero

Software engineer and tech lead

Open to remote roles and contract work, full time, starting now · Mexico City · UTC−6 · full overlap with US hours

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Experience

West Palm Test Prep **Remote**

Whiz.Study, a test-prep app with about 100,000 students when I left

Software engineer, then tech lead *Early 2025 – September 2026*

- Led **three junior engineers** and mentored **two more junior developers** through the redesign and rebuild of an inherited **300,000+ line** codebase in **about 4 to 6 months**, migrating all users, data and infrastructure.
- Chose a **hexagonal design** (Next.js, TypeScript, Drizzle, Zod, Supabase): a zero-dependency domain, services behind adapters. Indexes cut database usage from **about 99% to 1%**; Lighthouse went from **about 60–70 to 90+**.
- Designed an **exam engine**: one generic runtime, each exam a level defined as data, new exams as DLCs (APs, MCAT and more). Designed its **AI tutor** plugin, built with one other engineer: the **top subscription driver**.
- Designed the contentinator, an **LLM pipeline** checked by an **adversarial LLM** against exam-writing rubrics, with vector search to catch repeats. It produced **75,000+ questions in two months**, saving nearly **$296,000**.
- Built the payments entirely on my own: **Stripe subscriptions, one-time payments and free-trial entitlements**. Subscription revenue went from **zero to about $5k MRR** by the time I left.

Dimensione3 **Remote**

Main engineer *2023–2026*

- Main engineer on **Twinteraction**, a platform that turns **3D scans of real places** into tours people walk through in the browser.
- Re-architected its **tour engine**, which runs tours defined in JSON, into an **engine core with feature plugins**. Old and new ran side by side while features moved over one at a time.
- Built new features on it: a **chatbot** that answers from a knowledge base kept per tour, quizzes, and a bridge to learning platforms over **LTI**. Integrated our tours with **Moodle** courses.
- Did most of the **maintenance, optimisation and debugging**, and ran the **Kubernetes** setup. Set up unit tests with **Vitest in CI**, then integration and end-to-end tests.

Projects

The Lone Wander | *Solo developer, in progress; Godot 4.7, GDScript, Jolt Physics, Blender* **2026–now**

- A small **3D Zelda-like in Godot**, heading for a **public demo**. So far: the host (scenes, UI stack, pause, saves, timers), movement, a camera rig with lock-on, menus, the map, and a **shader** written from an empty file.

Plain Engine | *Solo, learning project; C++20, Clang, raylib, POSIX, Bash* **2025–now**

- A game engine written **by hand in C++** on macOS, following **Handmade Hero**. The game is a shared library that **reloads into the running engine** and keeps its state, in memory the platform owns.

Lumen (working name) | *Solo, own project; Kotlin, Ktor, Gradle, SQLite, TypeScript, React, Vite, Tailwind CSS, Cytoscape.js, Kotest, MCP, Anthropic and OpenAI-compatible models* **2026–now**

- A tutor that models a subject as concepts in a prerequisite order and the learner as evidence, and computes **what to learn next and why**. A working prototype, not yet used by learners.
- A Kotlin **modular monolith**: a zero-dependency domain, use cases as the only entry points (web, command line, MCP) and **486 property-based laws**. I design and approve each brief; AI coding agents write most of the code.

Technical Skills

Programming languages: TypeScript, JavaScript, C++20, GDScript, Bash

Architecture: Hexagonal (ports and adapters), domain-driven design, plugin architectures, data-driven runtimes

LLMs: Generation pipelines with LLM verification, tool calls, embeddings and vector search, OpenRouter

Web: React, Next.js, MobX, Node.js, PostgreSQL, Supabase, Drizzle, Zod, Stripe, Socket.IO, Vitest

3D and games: three.js, Matterport Showcase SDK, Godot 4, raylib

Infrastructure: Kubernetes

Languages: Spanish, native. English, professional: I worked in it every day, written and spoken, with a US company and with an Italian one.