JORGE LEAL

Software Engineering Student
& Data Analysis Enthusiast

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PROFILE

Fullstack Developer specialized in web platforms, high-performance backend systems, and data-driven dashboards. Hands-on experience building multi-tenant SaaS products, hybrid architectures (SSG/SSR), headless CMS, and performance-oriented services with advanced caching and optimization strategies. Strong focus on integrating interactive frontends with scalable, low-latency backends, automated cloud deployments, and applied AI and statistical models for analytics, forecasting, and enhanced user experiences.

LANGUAGES

- Spanish: Native
- English: Intermediate

EDUCATION

Universidad Autónoma Metropolitana, Unidad Xochimilco
Bachelor's in Social Communication
Graduated: October 2015

Universidad Abierta y a Distancia de México
Bachelor's in Software Engineering
Started: January 2025 | Currently studying

STACK

- **Frontend:** Next.js 14, React 18, SvelteKit, Tailwind CSS, NiceGUI, Astro, Three.js
- **Backend:** Rust (Axum), Go (Fiber), KeystoneJS, Node.js, Python
- **Databases:** PostgreSQL (Neon), SQLite, Redis
- **DevOps / Deploy:** Docker, Fly.io, Cloudflare, GitHub Codespaces
- **Media / Assets:** Cloudinary, Custom Image CDN (PixMinder)
- **Payments:** Stripe
- **IA / Data / Visualization:** Plotly, MusicGen, Gemini, Groq AI
- **Other tools**: GraphQL (URQL), Axios

PROJECTS

PixMinder | Rust (Axum) + PostgreSQL + Redis
Intelligent image optimization service designed as a high-performance CDN alternative to replace Cloudinary native transformations.
- Backend built in Rust with Axum following Clean / Hexagonal Architecture and strict layer separation.
- Context-aware image optimization with automatic format selection (AVIF, WebP, JPEG, PNG), adaptive quality, DPR-aware resizing, and SVG pass-through.
- Multi-layer caching system (in-memory, PostgreSQL, Redis) achieving sub-10ms cache latency and 15–30% better compression than Cloudinary native.
- Currently serving production traffic for Qubly CRM and LaZalza with +7–13 Lighthouse Performance points and 300–600ms LCP reduction.

Stack: Rust, Axum, Tokio, PostgreSQL (Neon), Redis (Upstash), SQLx, Moka, MozJPEG, WebP, AVIF (ravif), Cloudinary, Chart.js, Docker, Fly.io.

Qubly CRM | SvelteKit + Go (Fiber) + PostgreSQL (Neon)
Multi-tenant SaaS platform for small businesses in Mexico to launch an online store in minutes with direct WhatsApp ordering and zero sales commissions
- Hybrid architecture with SvelteKit (SSG + SSR + PWA) frontend and Go backend following Clean Architecture principles.
- Full e-commerce system with recurring subscriptions, Stripe Connect, webhooks, and a built-in referral system.
- AI-powered chatbot using Groq (Llama) optimized for low cost via intent detection, efficient context construction, and response caching.

Stack: TypeScript, SvelteKit, Go, Fiber, PostgreSQL (Neon), Stripe, Groq AI, Tailwind CSS, Docker, Fly.io.

Kidyboard | SvelteKit + FastAPI + PostgreSQL (Neon)
Multi-role management system for children's entertainment centers with administrative dashboard, sales, inventory, services, and real-time reporting.
- SvelteKit frontend with hybrid rendering and monorepo architecture; FastAPI backend following Clean Architecture with serverless PostgreSQL.
- Operational dashboard with real-time metrics (sales, ATV, inventory, active timers), comparative reports, and statistical forecasting for sales and capacity planning.
- Advanced features include real-time timers via WebSockets, Excel/PDF report exports, digital menu generation (PDF & video), and granular role-based access control.

Stack: TypeScript, SvelteKit, FastAPI, PostgreSQL (Neon), Chart.js, Tailwind CSS, Docker, Fly.io.

LaZalza | Next.js + KeystoneJS + PostgreSQL
News and editorial website about music, cinema, and popular culture.
- Frontend with Next.js 14 App Router and ISR (5 min).
- Headless CMS with KeystoneJS + PostgreSQL.
- Cloudinary integration and interactive 3D logo.
- Stack: TypeScript, React, Tailwind CSS, GraphQL, Docker, Cloudinary

Raccoonin Records | Next.js + KeystoneJS + PostgreSQL
Platform for an independent music label with hybrid architecture.
- Migrated from CSR to ISR and posts with infinite pagination.
- Multimedia embeds, streaming metalinks, and dynamic sitemap.

Stack: TypeScript, Next.js 14, React, Tailwind CSS, GraphQL, KeystoneJS, Cloudinary, Three.js, Docker

Beat Catalogue | SvelteKit + FastAPI + PostgreSQL
Music catalog with hybrid SSR and Spotify-style modal overlay.
- Backend with FastAPI + PostgreSQL and custom admin panel.
- Audio player with shuffle, play counter, and persistent theme switcher.

Stack: TypeScript, SvelteKit, Tailwind CSS, FastAPI, SQLAlchemy, Cloudinary, Three.js

Databoard | FastAPI + NiceGUI + Plotly + PostgreSQL (Neon)
Multi-tenant analytics dashboard for real-time monitoring of web metrics across multiple sites and projects.
- Async architecture with tenant-level data isolation, optimized caching, and resilient error handling.
- Advanced Plotly visualizations: time-series charts, hourly heatmaps, geolocation maps, and Spotify-style KPIs.
- Key features include multi-site selection, audience breakdown, time zone adjustment, CSV export, and statistical metric forecasting (EWMA, trend analysis).

Stack: Python, FastAPI, NiceGUI, Plotly, PostgreSQL (Neon), Tailwind CSS, Docker, Fly.io.

BSTCGenerator | FastAPI + MusicGen + Gemini
Audio generation platform for producers with cost-efficient architecture.
- Decoupled FastAPI backend with AI worker running on Google Colab (GPU) using MusicGen.
- Embedding and recommendation system based on feedback and pattern analysis.

Stack: Python, FastAPI, SQLite, Librosa, MusicGen, Gemini, Vanilla JS, GitHub Codespaces, Google Colab.