Marco Vinicio Payan Rayos

Full Stack Developer · DevSecOps & application security

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SUMMARY

I build systems where the data has to be right: e-invoicing at one of Mexico's largest retailers, field-operations platforms for financial companies, and my own multi-tenant SaaS. Now focused on DevSecOps — authorization enforced by the database, hardened deployments and security baked into the pipeline. Open to remote roles with US teams.

EXPERIENCE

Full Stack Developer · Red Kobra

Remote · Oct 2023 – Present

Field-operations platform used by financial companies to manage accounts, collection visits and their field agents.

- Designed and built the Angular admin system clients use to manage accounts, visits, products, permissions, rates and branches, with dynamic modules and custom reporting.
- Built the Android app field agents use every day: real-time visit logging, geolocation, push notifications and offline mode that syncs automatically.
- Added two-factor authentication and hardened the authentication flow.
- Wrote batch processes that sync high-volume data between systems; designed and tuned PostgreSQL and MongoDB schemas.
- Containerized environments with Docker and automated API testing with Postman in GitLab CI/CD.

Stack: Angular · TypeScript · RxJS · Java (Android) · Node.js · Express · PHP · PostgreSQL · MongoDB · Redis · Docker · GitLab CI/CD

Senior Developer · Coppel

Culiacán, Mexico · Mar 2021 – Oct 2023

One of Mexico's largest retailers. Worked on electronic invoicing (CFDI) and customer-account systems.

- Migrated the e-invoicing system from CFDI 3.3 to 4.0 to meet new SAT (Mexican tax authority) requirements, refactoring the PHP modules behind it.
- Built C++ processes for bulk validation and stamping of tax invoices, and C# tools for CFDI reporting and audits.
- Built Angular components to view, edit and validate invoices, and a PHP backend for customer accounts and financing secured with JWT.
- Moved legacy systems from MySQL to PostgreSQL and from monolithic PHP to Node.js services on Docker.

Stack: PHP · Angular · C++ · C# · Node.js · MariaDB · PostgreSQL · SQL Server · XML · Docker · GitLab

SELECTED PROJECTS

Recepcion.net recepcion.net

Multi-tenant booking SaaS — every business gets its own site.

- Subdomain-based tenancy with single sign-on across the business panel, the booking hub and every tenant site.
- Two locks on tenant data: every query is scoped by tenant in code, and Postgres Row Level Security rejects cross-tenant reads. The API's database role cannot bypass RLS.

Stack: TypeScript · Node.js · Express · Prisma · PostgreSQL · Redis · Next.js · Tailwind · Docker · GitHub Actions · Cloudflare

Route Collections

Offline-first cash collection for amusement-machine routes.

- Offline-first: every collection is written to IndexedDB and synced by a retrying queue. IDs are generated on the device, so a re-sync can never duplicate money.
- Authorization lives in Row Level Security, not in the UI: field users read only their own routes and can record collections only while their route is in progress. 54 API tests exercise RLS with real sessions.

Stack: React · TypeScript · Vite · TanStack Query · Dexie (IndexedDB) · Capacitor · Supabase · PostgreSQL · Mapbox · Cloudflare Pages

Zero Trust City

A cyberpunk game that teaches DevSecOps with real code.

- 74 missions and bosses across 8 ranks; 37 written and playable so far.
- Simulates 25+ real tools (Checkov, Trivy, Gitleaks, Semgrep, kube-bench, OPA…) with realistic output and real rule IDs. Nothing touches a real cloud.

Stack: TypeScript · Vite · Canvas 2D · CodeMirror 6 · Web Audio · Tauri 2 · Cloudflare Workers

POS General

Configurable point of sale and back office that keeps working offline.

- One codebase, three ways to run: Postgres in Docker on a shop’s PC with no internet, app and Postgres on a VPS, or embedded PGlite for development.
- Role permissions across 13 areas (view, create, edit, delete, cancel, export) checked on the server in every private API route, not just hidden in the UI.

Stack: Next.js 15 · React 19 · TypeScript · Auth.js · Drizzle ORM · PostgreSQL · PGlite · Dexie (IndexedDB) · Tailwind · Docker

SKILLS

Frontend & Mobile: TypeScript · Angular · RxJS · React · Next.js · Tailwind CSS · Android (Java) · Capacitor

Backend & Data: Node.js · Express · PHP · C# · C++ · Prisma · PostgreSQL · MongoDB · MariaDB / MySQL · Redis · Supabase

Cloud / DevOps: Docker · Compose · Swarm · GitLab CI/CD · GitHub Actions · Nginx · Linux servers · Cloudflare Workers & Pages · AWS & Azure fundamentals

Security: Postgres Row Level Security · Multi-tenant isolation · 2FA & JWT auth flows · Cloudflare Zero Trust & WAF · CSP & security headers · SPF / DKIM / DMARC · OWASP Top 10 · Checkov · Trivy · Gitleaks

EDUCATION

B.Eng. Software Engineering — Universidad Autónoma de Occidente (UAdeO), Guamúchil, Mexico · 2016–2020

COURSES

Platzi, 2024: OWASP Top 10: Application Security Risks · ISO 27001 Certification Prep · Azure Fundamentals (AZ-900 prep) · Introduction to DevOps · Jenkins · Linux Server Administration · Bash Shell Scripting · Git & GitHub · TypeScript (advanced types, OOP & async)

LANGUAGES

Spanish — Native · English — Professional working proficiency