



Marcos Reyes Martínez

PROGRAMMER ANALYST · FULL STACK DEVELOPMENT · SYSTEMS ADMINISTRATION

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Profile

Programmer Analyst with experience in full stack development and systems administration. I design, build and deploy web applications with Laravel and React, and manage the infrastructure they run on: Linux servers, Nginx, databases and AWS services.

I have taken applications from scratch to production, including **multi-tenant SaaS** architectures, generative AI integration with Google Gemini (function calling, real-time voice), real-time features over WebSockets and SSO-based system integrations. I complement development with networking, technical support and team coordination using Scrum and Kanban.

Experience

Rectory SPA – San Bernardo, Chile

June 2026 – present

Full Stack Developer & Systems Administrator

Company building a **multi-tenant SaaS** school management platform for schools and school operators, with 12+ modules (student conduct, academic coordination, student affairs, visitor control, messaging, strategic reporting).

- ◆ **Architecture:** technical lead and main developer (80%+ of commits) of a Laravel 13 / PHP 8.3 monolith with 150+ Eloquent models, a layer of 25+ business services and multi-tenancy with per-school data isolation, documented in an in-house architecture guide.
- ◆ **Security and access:** custom RBAC with 30 roles that users can hold simultaneously and per-module access middleware, mandatory 2FA (TOTP), audit log with JSON diffs, and AWS S3 file storage served through signed URLs.
- ◆ **AI: RectorIA**, a conversational assistant on Google Gemini with function calling, role-based context, guardrails and a real-time voice mode (**Gemini Live API**); engine of 35+ AI-generated PDF reports built with the Strategy pattern, reusable as tools by the assistant.
- ◆ **Integrations:** bidirectional sync with a digital class register (students, courses, teachers) and an IT inventory system through a Bridge pattern with SSO and per-action HMAC signatures; Python/FastAPI microservice acting as a gateway to Gemini; REST API with Sanctum for the mobile app.
- ◆ **Frontend and real time:** messaging module in React 19 over WebSockets (**Laravel Reverb**); rest of the UI with Blade, Livewire, Alpine.js and Tailwind CSS 4 on Vite, with Chart.js dashboards and Leaflet maps.
- ◆ **Automation and quality:** scheduled jobs for data sync every 10 minutes, daily SQL backups with 30-day retention and a weekly strategic PDF report sent by email; PHPUnit tests for integrations and permissions, and code style enforced with Laravel Pint.
- ◆ **Infrastructure:** single-handedly designed and deployed the production environment (VPS with Nginx, Redis, MySQL, systemd services for Reverb and queue workers) and the AWS infrastructure (EC2, S3, SES).

Development of the school's management platform and end-to-end IT support for the institution.

- ◆ Migrated legacy PHP code to Laravel 13 and built the platform from scratch (attendance, grades, assignments and communication), including user, role and permission management.
- ◆ Integrated Google Gemini for academic document analysis, text and image recognition, and generation of teaching support content.
- ◆ Set up internal network services (Samba, restrictive DNS, printers) and AWS S3/SES for file storage and institutional email.
- ◆ Took part in security audits and configuration of the school's platforms (Cloudflare, GitHub, hosting).

- ◆ Technically led a team of 5 developers using Scrum and Kanban to build an inventory and sales platform with React, Laravel and MySQL.
- ◆ Designed the architecture as a decoupled monolith; query optimization cut load times by 30% and a standardized release process cut time to production by 40%.
- ◆ Introduced GitHub Flow with code review and technical mentoring in PHP and Node.js, cutting team onboarding time by 50% and usage incidents by 25%.

Projects

Commercial game server hosting platform (Minecraft) with a custom admin panel.

- ◆ E-commerce built with Laravel, Livewire and TailwindCSS; payments through Webpay and Stripe, plus user, plan and billing management.
- ◆ Automated game server provisioning on VPS with Bash scripts and CI/CD, cutting provisioning times by 60%.
- ◆ Customer technical support via tickets and chat, and continuous security monitoring.

Skills

Languages: PHP, JavaScript, TypeScript, Python, SQL, Bash, HTML, CSS

Backend: Laravel (Eloquent, Verber, Sanctum, queues, scheduler), Livewire, FastAPI, Node.js, REST APIs, Flask, Django

Frontend: React, React Router, Blade, Alpine.js, Vue.js, Tailwind CSS, Vite, Chart.js, Leaflet

Applied AI: Google Gemini API, **Gemini Live API**, function calling, OCR, TTS, prompt engineering

Databases: MySQL, MariaDB, Redis, SQLite, Oracle Database, MongoDB, Cassandra

Infrastructure: Linux (Ubuntu, Debian, RHEL), Nginx, Caddy, Apache, systemd, Docker, VPS, AWS (EC2, S3, SES), Cloudflare, Hostinger

Networking and security: DNS, SSL/TLS, Samba, Fortinet/FortiGate, firewalls, VPN, 2FA/TOTP

DevOps and quality: Git, GitHub, GitHub Actions, CI/CD, PHPUnit, Laravel Pint, Jest, PyTest, code review

Methods and architecture: Scrum, Kanban, GitHub Flow, RBAC, Strategy pattern, multi-tenant architecture

Other: Webpay, Stripe, Arduino

Spoken languages: Spanish (native), English (intermediate, Duoc UC certificate)

Education

- ◆ Capstone project: TurnoMaster, a SaaS shift management system for small businesses. Final grade 7.0/7.0.

Certifications

- ◆ Duoc UC (2025): Software Architecture; Data Model Analysis and Development; Software Programming; Software Quality; IT Requirements Analysis and Planning; Intermediate English.
- ◆ SENCE (2025): JavaScript Programming; Internet of Things Fundamentals.