SANTIAGO RUBIOL

Full-Stack Software Engineer

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PROFESSIONAL SUMMARY

Full-Stack Software Engineer with hands-on experience designing, building, and operating mission-critical web applications, resilient REST APIs, and self-managed Linux production infrastructure. At Macropharma S.A., progressed from Data Entry Intern to Full-Stack Tech Lead by automating core document workflows (cutting multi-day manual work to ~40 seconds) and architecting **SIGMA**—a centralized enterprise platform now used daily by 100% of the company (60 users) across 85% of daily operations. Strong focus on TypeScript, React, Node.js, relational databases (PostgreSQL, SQL Server), multi-tenant architecture, and pragmatic AI-assisted engineering workflows.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript (ES6+), SQL (T-SQL, PostgreSQL), Python

Frontend: React, Astro, Tailwind CSS, Vite, Custom UI Component Libraries, Client State Management

Backend & APIs: Node.js, Express.js, Prisma ORM, Zod, RESTful APIs, JWT & RBAC, Rate Limiting, File Streaming (Multer)

Databases: PostgreSQL, Microsoft SQL Server (Relational Modeling, Composite Indexes, Views, ACID Transactions)

Infrastructure & Linux: Ubuntu Server (VPS), Nginx (Reverse Proxy, Gzip, Caching), PM2, SSL/Certbot, UFW Firewall & SSH Hardening, Bash Deployment Scripts, Git & GitHub

Data Automation & AI: Python ETL & Scraping (pandas, openpyxl, pdfplumber, Playwright), LLM Prototyping (Claude API, Ollama), AI-Assisted Coding Workflows

Languages (Spoken): Spanish (Native), English (Professional Working Proficiency — B2)

PROFESSIONAL EXPERIENCE

Full-Stack Tech Lead / Software Engineer • **Macropharma S.A.** *(Promoted from Data Entry Intern)* **July 2024 – Present**

- **Core Enterprise Platform (SIGMA):** Architected and built SIGMA from scratch (sole developer through the 6-month MVP), now supporting **85% of company operations** and **60 daily users** (100% of staff) across Sales, Purchasing, Tenders, Logistics, and Collections.
- **Cross-System Data Integration:** Unified 3 separate operational systems (Tango Gestión, Tarot, and SIGMA) by designing master data dictionaries (clients, products, suppliers) and product-family mappings, creating a single source of truth for quoting and reporting.
- **Custom Frontend & User Adoption:** Replaced off-the-shelf UI libraries with a custom **React + TypeScript** component library (Excel-like data grid, direct Excel importers, custom modals, multi-format uploaders) tailored to eliminate friction for spreadsheet-heavy users.
- **Production Stability & Backend Engineering:** Built modular **Node.js / Express** APIs with JWT/RBAC auth and IP rate limiting. Resolved a critical V8/RAM out-of-memory risk by migrating bulk file uploads from memory buffers to **Multer disk streaming** (150 MB hard cap, temp-directory isolation, and partial-batch fault tolerance).
- **Python ETL Automation (Origin Story):** Built batch-processing pipelines in **Python** (pandas, pdfplumber, openpyxl, Playwright) converting up to 30 tender comparative documents at once into ERP-ready formats, reducing manual loading from **2–3 days to ~40 seconds**.
- **Technical Leadership & Hybrid Infrastructure:** Mentored 2 junior developers (Git workflows, PR/code reviews, task breakdown) while acting as final reviewer for all production changes. Deployed a hybrid topology separating the VPS-hosted frontend from an on-premise Linux backend for low-latency ERP database access.

Software Developer • **Independent Software Developer** **2020 – 2022**

- Designed, built, and deployed a 100% production fleet-management system backed by **MySQL** for a family taxi business—managing vehicle inventory, maintenance logs, mileage tracking, drivers, and percentage-based daily revenue calculations—establishing strong OOP and relational modeling foundations.

FEATURED ENGINEERING PROJECTS & INFRASTRUCTURE

Multi-Tenant B2B SaaS Platforms (Auto Repair & Food Service) **Live on Personal VPS**

- **Strict Tenant Isolation:** Engineered logical multi-tenancy on **PostgreSQL** via **Prisma ORM** using a shared schema with `tenantId` discriminators and composite `@@index` / `@@unique` constraints.
- **Security & Data Integrity:** Built dedicated **Express** JWT middleware extracting `tenantId` strictly server-side (preventing client-side tenant spoofing), combined with **Zod** validation and atomic `prisma.$transaction` workflows.

Ritmates.com — Full-Stack Interactive Music Platform **Live in Production**

- Built a collaborative songbook platform with **React, TypeScript, Node.js, Prisma, PostgreSQL, and Google OAuth**.
- Implemented a custom lyric/chord tokenization algorithm and real-time harmonic transposition engine with interactive chord diagram rendering.

Self-Managed Linux VPS Infrastructure **Ubuntu Server 26.04 LTS**

- Provisioned and operate a multi-app production VPS behind **Nginx** (reverse proxy, Gzip, static caching) with automated **Certbot/Let's Encrypt** SSL, **PM2** process orchestration, localhost-isolated **PostgreSQL**, **UFW** default-deny firewall, SSH hardening, and `set -euo pipefail` **Bash** scripts for zero-downtime builds and Prisma migrations.

Natural Language-to-SQL RAG Prototype **Applied AI Proof of Concept**

- Built a read-only **Python** RAG prototype combining **Claude API** (NL → SQL) and **Ollama** (SQL → NL) over SQL Server, enforcing strict query guardrails to block destructive DDL/DML operations (`DROP`, `DELETE`, `UPDATE`, `CREATE`).

EDUCATION

Associate Degree in Programming (Tecnicatura Universitaria en Programación) **Graduated (Degree pending issuance)**
Universidad Tecnológica Nacional (UTN - FRT)

B.S. in Information Systems Engineering (Ingeniería en Sistemas de Información) **3 Years Completed**
Universidad Tecnológica Nacional (UTN - FRT)