JORGE ALEJANDRO RUBIO GIRALDO

SOFTWARE & DATA ENGINEER · APPLIED AI & AUTONOMOUS AGENT ARCHITECT

Location: Envigado, Antioquia, Colombia (Global Remote) | **Email:** jorge.rubio@est.iudigital.edu.co | **LinkedIn:** linkedin.com/in/jorge-rubio-io | **GitHub:** github.com/jorgerubio-better | **Web:** vdbcreator.com

EXECUTIVE PROFILE

Detail-oriented **Software & Data Engineering** practitioner and **Applied Artificial Intelligence Specialist** with proven experience delivering production-grade web applications, scalable data pipelines, and autonomous agent-assisted development workflows. Recognized as an **expert power user in modern AI engineering**: orchestrating autonomous coding agents, prompt architecture, tool-use execution, and LLM integrations that accelerate software development velocity up to 10x while maintaining strict architectural cleanliness. Experienced with Java Spring Boot, PostgreSQL, Linux VPS infrastructure, clean native mobile (Swift / Kotlin), interactive 3D media, and data visualization. Bilingual in English (B2) and Spanish (Native).

TECHNICAL ARSENAL & CORE COMPETENCIES

■ Applied AI & Autonomous Agents (Expert / 98%):

- **Autonomous Agent Workflows:** Multi-agent orchestration, tool calling, persistent subagents, self-healing execution loops.
- **Prompt Architecture & Context Engineering:** System prompts, structured JSON schema outputs, few-shot conditioning, context window optimization.
- **AI-Augmented Engineering:** End-to-end fullstack development, automated refactoring, and rapid code generation (Antigravity, Claude Code).
- **RAG & Intelligent Search:** Semantic retrieval, vector embeddings, combining LLM reasoning with relational PostgreSQL backends.

■ Software, Data & Infrastructure:

- **Backend & Systems:** Java (Spring Boot, Spring Security), Python (FastAPI, Flask, ReportLab), RESTful APIs.
- **Databases:** PostgreSQL (Relational modeling, ACID transactions, complex queries), SQL performance.
- **Clean Native Mobile:** Swift (iOS Native), Kotlin (Android Native) — clean architecture, zero hybrid overhead.
- **Cloud & DevOps:** Linux VPS (Ubuntu/Debian), Nginx reverse proxy, SSL/TLS certificates, systemd, UFW security hardening.
- **Languages:** Spanish (Native), English (B2 - Professional Working Proficiency).

SELECTED KEY PROJECTS & PROFESSIONAL TRACK RECORD

Lead Systems & Web Developer — Intermedy Soft & Web Portal

Healthcare Clinical Management Ecosystem & Web Portal · 2024 – Present · intermedy.com.co

- Designed and delivered the comprehensive user interface for a specialized outpatient medical center in Medellín, minimizing clinician cognitive load.
- Connected reactive frontend views with a secure Java Spring Boot backend and PostgreSQL database, enforcing strict role-based access control (RBAC).
- Deployed and maintain the application on an isolated Linux Virtual Private Server (VPS), configuring Nginx reverse proxying, SSL encryption, and security hardening.

Lead Architect & Applied AI Engineer — VDBCreator Statistical Engine

Data Analytics & Automated Inference Platform · 2025 – Present · vdbcreator.com/estadistica/

- Engineered an interactive statistical computing engine featuring bivariate linear regression, Pearson correlation, and real-time activity thermometers.
- Integrated automated reporting with on-the-fly PDF generation and AI-assisted data pattern recognition for research datasets.
- Deployed to production on Linux VPS with zero barrier access, supporting custom data ingestion and instant analytics.

Systems Architect — Private Video Screening Suite

Proprietary Video Screening & Academic Review Suite · 2026 · vdbcreator.com/screening

- Built an ad-free, uncompressed HTML5 video screening suite for university academic defenses and client deliverables.
- Implemented dynamic in-browser dossier personalization with localStorage persistence for professors and evaluators.

Interactive Media Developer — Aegis Protocol Universe

3D Interactive Narrative & Procedural Systems · 2025 – Present · vdbcreator.com

- Conceptualized a science fiction interactive narrative applying 3D human character animation, rigging pipelines, and AI-assisted lore branching.

Audio Engineer & Producer — Honey Sound Lab

Interactive Audio Architecture & Ambient Synthesis · 2024 – Present

- Developed procedural browser-based synthesizers utilizing the Web Audio API and produced atmospheric musical compositions for digital platforms.

E-Commerce Architect — Canadian Pet Nutrition Platform

Headless Affiliate E-Commerce Hub · 2026

- Architecting a headless bilingual (EN/FR) affiliate e-commerce store with Amazon API product feeds and high-conversion mobile checkout funnels.

EDUCATION & ACADEMIC CREDENTIALS

Institución Universitaria Digital de Antioquia

B.S. in Software & Data Engineering (Expected 2028)
Coursework in Algorithms, Data Structures, Relational Databases, Cloud Architecture, and Statistics.

Universidad de Antioquia

Diploma in Fundamental Technologies & AI (Completed)
Intensive curriculum: Python, Java, JavaScript, Database Systems, and Applied Artificial Intelligence.