

ISIDRO JORGE ZERTUCHA GONZÁLEZ

Full Stack Developer | Systems Generalist Havana, Cuba | isidro.zertucha@gmail.com | (+53) 55369856 [Portfolio](#) | [LinkedIn](#) | [GitHub](#)

PROFESSIONAL SUMMARY

Versatile Full Stack Developer and Automation Engineer (EQF Level 6) with a strong record of **end-to-end project ownership**, including independently building and deploying production-ready systems. Experienced in delivering solutions for **government and enterprise environments**, modernizing legacy platforms for **3x performance gains**, and contributing to **national-scale infrastructure serving 7M+ users**. Expert at bridging **industrial automation** with modern digital platforms and operating effectively in technical lead roles.

TECHNICAL SKILLS

- ◆ **Backend:** Python (Django, FastAPI), TypeScript (Nest.js), Java (Spring Boot, Jakarta EE).
 - ◆ **Frontend:** React, Next.js, Remix.js, SvelteKit, Flutter, KivyMD, Vite.
 - ◆ **Infrastructure & Ops:** Linux Server Admin, Dokploy, Hetzner VPS, Docker, Cloudflare (DNS/Security), GitLab CI/CD, Heroku.
 - ◆ **Data Engineering:** PostgreSQL (Schema Design & Migrations), ERPNext/Frappe Integration, MySQL, Redis, ORM.
 - ◆ **Architecture & Design:** Clean / Hexagonal Architecture, Container-Presentational Pattern, Figma MCP (Design-to-Code), API (REST, GraphQL) Design & Documentation.
 - ◆ **Specialized:** Node-RED (Expert), n8n (Expert), OpenCV, OPC-UA, MATLAB.
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PROFESSIONAL EXPERIENCE

Avangenio (General Software Inc.)

Full Stack Developer

- ◆ **Cross-functional Collaboration:** Worked closely with multiple teams including frontend, backend, QA, and project management to deliver integrated solutions across various projects.
09/2025 - Present

- ◆ **Salary & Treasury ERP Platform:** Built a production ERP that manages **salary disbursement and multi-currency exchange for company members**, on a **FastAPI (Python 3.14, SQLAlchemy 2.0) + Next.js 16 / React 19** Turborepo monorepo. Led an **impactful refactor to Clean / Hexagonal Architecture**, isolating domain business rules from the HTTP and persistence layers (api / application / domain / infrastructure) to make the platform **testable, scalable, and maintainable**. Delivered **pixel-perfect interfaces directly from Figma designs** by leveraging the **Figma MCP** to translate design files into production-grade **React/Tailwind (shadcn/ui)** components with exact visual fidelity; also implemented **JWT-based RBAC** and an **automatic audit-logging** system.
- ◆ **Linkeum Wallet (Tropipay Subsidiary):** Built a multi-currency digital wallet (USD, EUR, crypto) from scratch as one of only two full-stack engineers, alongside a project manager. Shared backend and frontend responsibilities using **Nest.js, Next.js, and Turborepo**; built **complex multi-step onboarding forms** and **two-factor authentication (2FA)**, and designed and implemented a production-ready notification system using **Next.js Server Actions** with real-time alerts and optimistic UI updates. Delivered the complete platform in under 30 days.
- ◆ **Project Lead (Justice System):** Engineered “Asistente Judicial en Línea,” a mission-critical Flutter application for the governmental justice system to monitor the social reintegration of sanctioned individuals. Architected a high-performance, asynchronous mobile solution with local caching, ensuring 100% data integrity for field workers in connectivity-limited environments, and integrated the mobile client with a Python/ERP-Next (Frappe) backend while leading technical documentation of REST APIs to streamline cross-team development.
- ◆ **Healthcare Systems Development:** Contributed to the “Provider Data Management System” of ALIVI Health, a Miami-based healthcare company specializing in Non-Emergency Medical Transportation (NEMT). Focused on identifying and fixing bugs to ensure production readiness for their document and contract management platform serving vulnerable populations (Medicare/Medicaid).

Ranfo

Lead Full Stack Developer (Contract)

- ◆ **End-to-End Ownership:** Acted as the sole technical lead to digitize a vehicle workshop, serving as architect for the full product lifecycle (Design, Development, and Operations).06/2025 - 08/2025
- ◆ **Cloud Infrastructure:** Provisioned a **Hetzner VPS** environment using **Dokploy** for CI/CD and **Cloudflare** for secure traffic streaming and WAF protection.
- ◆ **Reliability Engineering:** Executed a **non-breaking database migration** to support radical changes in business logic while ensuring zero downtime for the production system.
- ◆ **Business Impact:** Built a custom Django ecosystem enabling the CEO to maintain 100% remote oversight of financial flows and operational data.

Yula

Full Stack Developer (Contract) | France - Remote

- ◆ **AI Support Automation:** Developed the frontend for an AI-driven customer service tool providing automated, context-aware FAQ responses for Shopify stores.06/2024 - 08/2024
- ◆ **Architecture:** Engineered a high-performance **Remix.js (React)** interface; integrated a real-time chat UI with a **FastAPI/LLM** backend utilizing web-scraped store data.
- ◆ **Deployment Ops:** Managed the full deployment cycle and environment configuration on Heroku during the MVP prototyping phase.

Pakkete Group

Frontend Developer

- ◆ **Cross-functional Collaboration:** Worked closely with a multidisciplinary team of backend engineers, UI/UX designers, and marketing specialists to align technical deliverables with brand identity and launch objectives.04/2024 - 05/2024
- ◆ **Production Delivery:** Optimized performance and finalized the “last commit” for production-ready Flutter e-commerce platforms, ensuring system stability for market launch.

Etecsa

Software Engineer

- ◆ **National Scale IT:** Contributed to a high-performance team maintaining and upgrading national-scale applications supporting **7 million users**.09/2023 - Present
- ◆ **Internet Consumption:** Developed a cross-platform Flutter application enabling the entire Cuban population to manage their internet consumption with time-based plans offered by the company.
- ◆ **System Optimization:** Led the migration of internal operational platforms from legacy Javax to **Spring Boot**, achieving a **3x performance boost** for staff managing national telecommunications services.
- ◆ **Agile Delivery:** Collaborated across departments to deliver real-time data visualization modules in Nest.js and Flutter for national internet clients.

L&M Tailoring

Lead Full Stack Developer (Contract)

- ◆ **Digital Transformation:** Architected and deployed a centralized Django/PostgreSQL ecosystem to replace 100% of manual paper-based ordering and record-keeping.08/2023 - 02/2024
- ◆ **On-Premise Infrastructure:** Solo-engineered a Django central server and Flutter mobile clients; configured the local network to ensure real-time data synchronization.
- ◆ **Operational Success:** Replaced the legacy manual system with a zero-data-loss digital solution that synchronized sales across the entire workshop network.

CUJAE

IT Project Lead (Contract)

- ◆ **Security Automation:** Engineered an automated, Linux-based campus security system using **Python and OpenCV** on **Raspberry Pi** nodes for real-time identity verification via QR codes.2022 - 2024

- ◆ **Systems Integration:** Collaborated with the Informatics department to integrate edge hardware with a central **Node-RED backend** via **RESTful APIs**, bridging physical sensors with a software management layer.
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PROJECTS

AI-Driven News Intelligence System

Technical Implementation

- ◆ **Orchestration & AI:** Architected a production-ready system using **n8n** to automate data transformation workflows and AI interactivity. 04/2025
- ◆ **Backend & Cache:** Developed a **FastAPI** REST API to serve scraped news data efficiently from a **Redis** layer.
- ◆ **Full-Stack Deployment:** Built a **SvelteKit** virtual assistant GUI and containerized the entire stack using **Docker Compose** for scalable deployment.

Hospital Hydraulic Automation (Undergraduate Thesis)

Lead Automation Engineer

- ◆ **Systems Architecture:** Engineered a complete automation proposal for a pediatric hospital's hydraulic supply, designed to replace a manual 6-hour pump cycle with an autonomous software-driven solution. 2021 - 2023
 - ◆ **Validation & HMI:** Developed a functional HMI in **Python/KivyMD** and validated the control logic via **OPC-UA** communication with industrial PLCs in a simulated environment.
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PUBLICATIONS & AWARDS

- ◆ **Award:** Scientific Merit & Integrality Award - Top academic honors at CUJAE. (2023)
 - ◆ **Publication:** [Sistema de control de acceso mediante código QR](#) (2023)
 - ◆ **Publication:** [Interfaz hombre-máquina de código abierto para supervisión de sistemas hospitalarios](#) (2023)
 - ◆ **Publication:** [Planificación económica en una empresa de sistemas de seguridad](#) (2023)
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ADDITIONAL EXPERIENCE

Undergraduate Thesis Advisor

12/2024 - 03/2025

CUJAE / ICIMAF (Part-Time)

- ◆ **Technical Leadership:** Mentored senior engineering students in architecting an industrial energy monitoring system using **Node-RED**, **PostgreSQL**, and **Docker**.

- ◆ **Systems Optimization:** Consulted on database schema design and containerization strategies for the Institute of Cybernetics, Mathematics, and Physics (ICIMAF).

Teaching Assistant (Automation & Programming)

CUJAE (Part-Time)

- ◆ **Full-Stack Mentorship:** Guided students in architecting automation projects integrating **Django** backends with **Raspberry Pi** hardware. 02/2019 – 06/2023
- ◆ **Systems Engineering:** Provided hands-on instruction in **Multithreading, PLC Programming**, and virtualization using **VMware** to solve real-world industrial problems.
- ◆ **GUI Development:** Taught the implementation of cross-platform interfaces using **Kivy**, bridging Python logic with user-centric design.

Robotics Instructor

GRM CUJAE (Part-Time)

- ◆ **Embedded Systems:** Led technical workshops on robotics control logic using **C++**, **Arduino**, and **Raspberry Pi** for competitive robotics projects. 2019 – 2023
- ◆ **Mechanical Prototyping:** Engineered 3D models and mechanical designs in **Autodesk Inventor** to support the robotic team's hardware fabrication.

Community Lead & Systems Admin

Joven Club (Part-Time)

- ◆ **Infrastructure Management:** Administered **TeamSpeak** servers, managing low-latency voice infrastructure, user permissions, and security protocols for a large user base. 2019 – 2021
- ◆ **Web Operations:** Created and administered community platforms using **Xenforo**, **WordPress**, and **PHP/MySQL**, handling routine maintenance and database backups.
- ◆ **Crisis Leadership:** Orchestrated virtual social communities during COVID-19 quarantine, designing and moderating interactive quiz shows and digital engagement programs for national users.

EDUCATION & LANGUAGES

- ◆ **Automation Engineering Degree:** CUJAE, Havana, Cuba (2018 – 2023)
- ◆ **Languages:**
 - ◆ **Spanish:** Native.
 - ◆ **English:** Proficient (C2 Reading & Listening / B2 Writing & Speaking).
 - ◆ *EF SET Score: 72/100.* Verify: cert.efset.org/en/cbdEc2