

# Andres Eduardo Rosas Alpiri

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## SUMMARY

Full-Stack Engineer building production web applications and real-world platforms. Experience across frontend, backend, and databases, with focus on backend architecture, system design, performance, and scalable software.

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## EXPERIENCE

### Full-Stack Engineer

#### Building a Platform Used by 70% of Medical Students

January 2023 - January 2023, Santa Cruz de la Sierra, Bolivia

- Delivered the initial version in **2 weeks** and led multiple **product iterations** based on user feedback.
- Designed a **static-first architecture using Astro with Vue islands** for maximum SEO and minimal JavaScript load, reducing backend queries by **over 80%**.
- Integrated **external storage (Google Drive)** and **Supabase** for real-time functionality while maintaining **low infrastructure costs**.
- Implemented **hierarchical navigation (year → subject → professor → exam → material)** to improve usability and search visibility.
- **Impact:** ~1,000 monthly users, **300+ centralized documents**, **53 indexed pages**, and adoption by **~70% of the student community**; the platform also supported the success of a student campaign.
- Improved resource discoverability through **hierarchical navigation** and **SEO-optimized static pages**.

### Full-Stack & Project Lead

#### Building a Commercial Website for a Regenerative Medicine Clinic

January 2022 - May 2022, Tarija, Bolivia

- Led development of a commercial website for a regenerative medicine clinic.
- Organized 70+ medical services into structured, SEO-optimized pages.
- Implemented a static-first architecture using Astro and deployed on Vercel to ensure fast performance and zero server maintenance.
- Integrated analytics and search indexing tools to support digital marketing campaigns.
- Delivered a professional online presence that reduced repetitive patient inquiries and centralized previously fragmented information.

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## PROJECT

### QRaten — Offline QR Attendance System (Archived)

Independent Project • [me.niuvu.com/projects/qraten-archived](https://me.niuvu.com/projects/qraten-archived) • December 2024 – Present

- Designed and built an offline-first QR attendance system from concept to production prototype.
- Implemented a **TOTP-based QR validation mechanism** allowing attendance registration without internet connectivity.
- Reduced infrastructure requirements by moving QR validation to the client side instead of server-side verification.
- Developed a full ecosystem including a **Vue.js web platform**, **Flutter mobile client**, and an early **React Native prototype**.
- Led system architecture, backend infrastructure, and product decisions while collaborating with UI designers.
- Validated the concept with a limited release (~30 downloads) and archived the project while preparing a simplified **PWA rewrite**.

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## EDUCATION

### Computer Engineer

Minor in Mathematics • UAGRM • Santa Cruz de la Sierra, Bolivia • 2025 • 3.7

- NASA Space Apps Challenge participant
- Camballey Hackathon participant
- Built platforms used by 1,000+ monthly users
- Full-stack projects solving real-world problems
- Self-directed engineering study alongside university
- Focus on system design and backend architecture

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## SKILLS

Frontend: JavaScript, TypeScript, React, Vue, HTML, CSS

Backend: Node.js, Express, REST APIs, Authentication, Roles management, WebSockets

Databases: PostgreSQL, MongoDB, Data Modeling

Architecture: System Design, Static-First Architecture, Performance Optimization

Infrastructure: Vercel, Serverless Deployment, Supabase

Engineering: Clean Code, Debugging, Documentation, Problem Solving

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