

Juan Alejandro Urueña Serna

Systems and Telecommunications Engineer · Full-Stack Developer

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PROFILE

Systems and Telecommunications Engineer, graduated in 2026, focused on building and deploying complete web systems: site, database, analytics, and automation, with Next.js, TypeScript, Supabase, and Cloudflare, for clients in the United States and Colombia. AI-agent-assisted development (Claude Code, OpenCode) under engineering principles and verification of every delivery. Academic background in deep learning applied to predictive maintenance.

SKILLS

Languages: TypeScript, JavaScript, Python, SQL, Java, C++

Frontend: Next.js, React, Astro, Tailwind CSS, shadcn/ui, Framer Motion

Backend and data: Supabase, PostgreSQL, Cloudflare Functions, Node.js, FastAPI, MySQL, SQL Server

Cloud and deployment: Cloudflare Pages, Vercel, Coolify, Git/GitHub, Linux

AI and data: TensorFlow, Keras, PyTorch, scikit-learn, Pandas, RNN/LSTM/CNN/TCN, Design of Experiments (DOE)

AI-assisted development: Claude Code, OpenCode, Cursor, Antigravity, context engineering, LLM APIs, GitHub Copilot, Gemini

Automation and analytics: n8n, Google Analytics 4 (GA4), Meta Pixel, Microsoft Clarity

IoT: MQTT, Arduino

EXPERIENCE

Freelance Web Developer · Remote · Jan 2026 – Present

- Built the lead-generation funnel for a client in the medical sector (ecmo-lp.pages.dev): Next.js landing page (static export) with a Cloudflare Pages Function and Supabase for lead capture, and conversion tracking with Meta Pixel, GA4, and Microsoft Clarity. Result: **250+ sign-ups and ~170 people** joined the WhatsApp group where the client sells his training program.
- Developed and deployed minasmassage.com, the bilingual website of an independent therapist specializing in post-surgical recovery and lymphatic drainage in Dallas and Miami (USA). Next.js, Supabase, and a custom domain; full site content in English and Spanish.
- Built the website for a travel agency with Colombia's National Tourism Registry (RNT) (a-viajar-tours.pages.dev): package catalog and direct WhatsApp contact. Next.js, shadcn/ui, and Cloudflare Pages.

Full-Stack Developer and AI Models — Degree Project, Universidad Católica de Pereira · 2025

- Evaluated four deep learning architectures (RNN, LSTM, CNN, TCN) to classify anomalies in industrial machinery vibration signals, applying Design of Experiments (DOE) with TensorFlow/Keras.
- Built the real-time predictive maintenance web application: FastAPI, PostgreSQL, and Chart.js, with user authentication and an alert system.
- Integrated IoT data ingestion with Python scripts and the MQTT protocol.

User and Vendor Acquisition — Prosavis · Dec 2025 – Feb 2026

- Recruited users and service providers in Pereira for the launch of a services-directory mobile app.

Roadside Assistance Agent — Zipfixx LLC · Remote · Jun 2024 – Jul 2025

- Provided remote roadside assistance support to U.S. customers, **100% in English**: service coordination and follow-up through resolution, under quality metrics.

Customer Service Agent — Teleperformance · Mar 2022 – May 2022

- Resolved incidents and guided users on the DoorDash campaign under time and quality metrics.

PERSONAL PROJECTS

- **Affiliate sales funnels (Hotmart)** · habito-nutritivo-recetas-21-dias.pages.dev: built opt-in landing pages and direct-sales pages, drove organic and paid traffic from social media, and integrated pixels for campaign attribution (Meta Pixel, Hotmart pixel) with behavior analytics (GA4, Microsoft Clarity).
- **HandOff Chat** · handoffchat.com (paused): AI agents for WhatsApp with conversational flows in n8n, models via OpenRouter, and integration with the official WhatsApp Business API through Zernio; landing page and authenticated web app (Next.js, Supabase), deployed with Coolify on a Hetzner VPS.

EDUCATION

Systems and Telecommunications Engineering — Universidad Católica de Pereira · April 2026

Degree project: "Evaluation of Deep Learning algorithms for a predictive maintenance system through Design of Experiments," completed as a research residency.

Bilingual Academic High School Diploma — Liceo Taller San Miguel · 2020

LANGUAGES

Spanish, native · English, B2 (Cambridge English), with over a year of experience serving U.S. customers in English.