Pedro A. González

AI & Full-Stack Engineer · Educator · Community Lead · Entrepreneur

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Professional Summary

AI & Full-Stack Engineer and Entrepreneur with 10+ years of experience in software engineering, artificial intelligence, physical computing, and technical education. Proven ability to design, build, deploy and scale full-stack systems using Node.js, Python, Ruby, React, PostgreSQL, MongoDB and cloud platforms. Experienced in GovTech, data analytics, IoT, and community-driven technology initiatives. Track record of leading cross-functional teams, mentoring developers, and collaborating with governments, universities, startups, and international organizations including the United Nations, World Economic Forum, MIT Media Lab, Harvard Business School, Internet Society, and Salzburg Global.

Core Skills

- AI-Powered Full-Stack Systems
- Software Architecture & Systems Design
- GovTech, Smart Cities & Data Visualization
- Physical Computing, IoT & Robotics
- Progressive Web Apps & 3D Web
- Technical Education, Mentorship & Curriculum Design
- Community Building & Ecosystem Development
- Remote & Cross-Cultural Team Leadership

Professional Experience

AI Tech Lead Consultant — GovTech Analytics

Gobierno Digital (Cancún/Remote) · 2025–2026
- **Technical lead for AI-driven analytics team of 8 people** supporting public-sector decision-making.
- Designed and implemented dashboards and AI-chatbot features through team workflows using **git, Node.js, React, JWT, Leaflet, Recharts, OpenAI**.
- Integrated **Power BI and Looker Studio** pipelines for actionable insights in **smart-city initiatives**.

Full-Stack Mentor, Instructor & Technical Interviewer

Lighthouse Labs Inc. (Canada/Remote) · 2021–2025
- **Trained 40+ cohorts across Canada** through intensive **Node.js, React, PostgreSQL, and Ruby on Rails** web development programs.
- Led **5,600+ hours of 1:1 mentoring, code reviews, and technical interviews**.
- Supported early-career engineers transitioning into industry-ready roles.

Full-Stack Instructor & Community Lead

DEVF (Latin America/Remote) · 2018–2021
- Delivered **Node.js, Express, React, MongoDB** stack programs **120+ developers across LATAM**.
- Helped grow one of the region's most active developer communities with **25+ hackathons and tech activities**.
- Created educational content and live learning experiences for social media.

Experience Manager

Tech Garage Innovation Park · 2016–2018
- Led Cancún's first technology park, organizing **150+ events** and reaching **3,000+ participants.**
- Delivered **IoT & AI prototypes with Raspberry Pi, Arduino, and cloud integrations**
- Partner with Google, Uber and Microsoft to **boost the local startups and creators regional ecosystem**.

Community Lead

Microsoft Innovation Center Cancún · 2015–2016
- **Designed and delivered 9 workshops and technology programs** focused on entrepreneurship and digital skills.

Selected Projects

Cloud Database for Future Skills Transfer
- Research project in Osaka, Japan exploring **motion, muscle and brainwave data capture**.
- ESP32 microcontrollers with custom C++ firmware; signal processing, ML classifiers.
- Real-time synchronization via **Node.js, JWT, Socket.IO, OpenAI**, visualized in a **React PWA**.

3D & Interactive Systems
- **Cancún Beach Multiplayer Simulator** - real-time 3D environment (Three.js, Socket.IO, AI).
- **Hand Rush** - gesture-based 3D game using computer vision (ml5.js Hand Pose).
- **Skydive Collector** - motion-controlled 3D game using Device Orientation APIs.

Robotics & Physical Computing
- IoT Mobile Robot showcased at **UN STI Forum 2018**.
- Arduino, Raspberry Pi and LEGO Mindstorms robotics experiments.
- Algorithms, automation and human–machine interaction research.

Product & Platform Development
- **TicketFlyers.com** - travel booking platform (Travelpayouts API).
- **MyDoctorAway** - medical-on-demand hospitality platform.
- **Dozens** of production websites, e-commerce platforms and digital brands.

Education & Fellowships
- **Connecting Technologies Fellowship** - (Salzburg, Austria 2024)
- **Certificate, Emergent Future Technologies** - MIRAI Innovation & Research Institute (Osaka, Japan 2023)
- **Certificate, High-Impact Entrepreneurship** - TecniA Innovation Park (Mérida, México 2016-2017)
- **B.Sc., Mechatronics Engineering Degree** - Tecnológico Nacional de México (Cancún, México 2011-2016)

Global Impact & Recognition
- Connected **30+ rural schools and communities** with no prior internet access through Kaanbal.org (co-founder non-profit).
- Speaker & contributor at **United Nations**, **MIT Media Lab**, **Harvard**, **TU Berlin**.
- Participant, **World Economic Forum GS Annual Summit @ Geneva & Plan México @ CDMX** (2025).
- Grants and recognition from **Internet Society**, **Government of Mexico**, and regional authorities.
- Founder Member & Curator Alumni, **Global Shapers Community, encouraging youth local leaders in global action.**.

Languages
- Spanish - Native
- English - Billingüal (C1, IELTS 7.5)

Tech Stack
- **Frontend:** jQuery, React, Next.js, Bootstrap, TypeScript, Tailwind, Three.js, p5.js
- **Backend:** Node.js, Express, Python, Ruby on Rails, JWT, RESTAPI, GraphQL
- **Databases:** PostgreSQL, MySQL, MongoDB
- **Cloud & DevOps:** DigitalOcean, Docker, Kubernetes, AWS, GCP, Azure, Netlify, Render
- **Testing:** Mocha, Chai, Jest, Cypress, react-testing-library, vitest, Storybook, Playwright
- **AI Tools:** OpenAI, Claude, Replit, Lovable, Replit, n8n, ml5, Tensorflow
- **Payments and APIs:** Stripe, Paypal, Zapier, Travelpayouts, Cloudinary

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