Fernando Haro Calvo

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Education

Universidad Autónoma de Baja California — Ensenada, BC
B.S. in Software and Emerging Technologies Engineering | GPA: 9.6/10.0 — *Aug 2022 – Jun 2026*

Experience

EPAM Systems — Remote
Automated Testing Engineer Intern | Java, Selenium — *Oct 2025 – Present*

- Developing automated test frameworks using **Java** and **Selenium** to ensure software quality and reliability across enterprise applications.

Tech4Good Research Lab — Ensenada, BC
Fullstack Developer Intern | React Native, Supabase, Node.js — *Mar 2025 – Oct 2025*

- Developed a **React Native** mobile application serving caregivers and adults with Autism Spectrum Disorder (ASD), providing access to screening questionnaires and local professional networks.
- Architected and implemented the backend infrastructure using **Supabase**, including database schema design, secure authentication flows, and row-level security policies.

Projects

NASA Explorer | *React, NestJS, MongoDB, GCP, Vertex AI* — Oct 2025

- **Won 1st place** among 17 teams at NASA Space Apps Challenge for building an AI-powered research assistant enabling scientists to explore NASA's space biology publications through natural language queries.
- Architected a **RAG (Retrieval-Augmented Generation)** system using **Google Cloud Vertex AI**, ensuring 100% factual accuracy by grounding responses exclusively in verified NASA documents.
- Built interactive knowledge graphs with **D3.js** visualizing relationships between 600+ research articles, helping researchers identify knowledge gaps and research trends in space biology.

Awita | *React, NestJS, MySQL, AWS, Lambda, Arduino* — Jan 2025 – May 2025

- Designed and developed a fullstack IoT platform enabling households in water-scarce regions to monitor and optimize water usage in real time, potentially reducing consumption by 30%.
- Built a responsive dashboard using **React** and **TypeScript** with live data visualizations, historical trends, and LSTM-based predictive analytics for water consumption forecasting.
- Engineered a scalable backend with **NestJS** and **AWS Lambda**, processing 1000+ daily sensor readings with 100ms average latency and 99.9% uptime.

Leadership & Awards

- **Elegis-Tech 3 Hackathon — Honorable Mention (Mar 2025):** Developed LegisConnect, a civic engagement platform using Next.js and Python web scraping to connect citizens with legislators.
- **Competitive Programming Club Co-Leader (Oct 2024 – Present):** Leading weekly programming workshops for 80+ students, focusing on algorithmic problem-solving and data structures. Managing educational content and community engagement through @ctrl.coders.

Technical Skills

Programming Languages: JavaScript, TypeScript, Python, Java, C#, C++

Frontend: React, Next.js, React Native, TailwindCSS

Backend: NestJS, Django REST, FastAPI, Express

Database: PostgreSQL, MySQL, MongoDB, Supabase

Cloud/Infrastructure: AWS, Azure, GCP, Docker, GitHub Actions

Spoken Languages: Spanish (Native), English (Advanced - B2 Certified)