Fernando Morán Fougerat

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EDUCATION

Tecnológico de Monterrey (ITESM) — Monterrey, México
Bachelor of Science in Computer Science - GPA 4.0 — *Aug. 2022 - May 2026*
- **Academic Talent Scholarship:** Awarded a 50% merit-based scholarship for outstanding academic performance.
- **Relevant coursework:** Advanced Data Structures and Algorithms, Object-Oriented Programming, Software Construction, Machine Learning, Operating Systems, Computer Networks, Cybersecurity

TECHNICAL SKILLS

Coding Languages: C/C++, Python, JavaScript, Go, TypeScript, SQL, Swift, Bash, HTML/CSS, R
Tools: Github, Node.js, Docker, Power Automate, MySQL, MongoDB, PostgreSQL, Redis, React, Next.js, Scikit-learn

EXPERIENCE

MongoDB — Jun. 2025 – Aug. 2025
Industry Solutions Intern — *Austin, Texas*
- Engineered a fleet management software integrating advanced Vector Search, AI agents using LangGraph, and real-time Geospatial analytics to enhance operational insights.
- Designed and implemented a Python-based asynchronous simulation to stream data efficiently, optimizing database performance for batch processing through dynamic bucketing techniques.

Softtek — Nov. 2023 – Mar. 2025
Software Engineer Intern — *Monterrey, Mexico*
- Designed architecture and developed web applications with TypeScript and Node.js for over **11,000** employees as a full-stack developer. Made Power BI dashboards to track user interaction, providing regional and global insights.
- Developed Python and Power Automate automations to process large files and manage advanced workflows, saving multiple clients over **$500 monthly** in work time and resources.
- Streamlined chatbot ticket management by standardizing API endpoints and integrating with external providers.
- Enhanced machine learning model using Scikit-learn for ticket classification, improving accuracy of model to **90%.**
- Implemented secure authentication systems using Microsoft's 2FA to meet company data protection standards.

Bufetec — Aug. 2024 – Oct. 2024
iOS Software Engineer Volunteer — *Monterrey, Mexico*
- Led development as **SCRUM Master** for an iOS application streamlining a nonprofit law firm's operations.
- Developed an **AI-driven** search engine for legal precedents using OpenAI, integrating a Python scraper and MongoDB database to structure legal data from Mexico's Federal Jurisdiction publication.
- Deployed backend services using Docker and integrated Firebase for seamless server management.
- Invited to showcase project at Expo Ingenierías, an event celebrating the **best engineering projects** at ITESM.

PROJECTS

Code Courses | *Javascript, Go, PostgreSQL, React, Redis, Docker, DigitalOcean, Clerk*
- Developed an interactive coding platform with React frontend and Go-based RESTful APIs.
- Built a modular code submission engine with **Redis queues** and **Docker containers**, ensuring reliable tests validation and scalable performance in multiple languages.
- Implemented and stress-tested Go routines to support **100+ concurrent users** with high availability.
- Optimized PostgreSQL schema with triggers, views and stored procedures for dynamic features efficiency.

One Pot | *Javascript, React, Express, MongoDB, Node.js, Vercel, Render*
- Developed a **full banking system API** using MongoDB, managing user accounts and transactions for our app.
- Enabled users to create shared savings accounts with federal bond investments, implementing earnings calculations and visualizing data with Matplotlib. Added live chat for real-time communication within shared accounts.
- Won **1st place** in Capital One's challenge at HACKMTY 2024 and ranked **top 10 overall finalist** for the second consecutive year, competing against 500+ participants in Latin America's largest student hackathon.

ADDITIONAL INFORMATION

Languages: English, Spanish, French.
Soft Skills: Analytical Thinking, Adaptability, Problem solving, Communication, Project Management, Detail-Oriented