DANIEL CHAVEZ
Full Stack Developer & Petroleum Engineer

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LinkedIn: https://www.linkedin.com/in/daniel-chavez-engineer-developer/
Portfolio: https://portfolio-danielchavezs-projects.vercel.app/

PROFILE

Bilingual (English / Spanish) Full-Stack Developer with a Petroleum Engineering degree, four years of Oil & Gas experience, and a Project Management Diploma. I select technologies to fit each project—using Python and FastAPI for API work or JavaScript/TypeScript frameworks on the back- and front-end—so every solution is both flexible and maintainable.

I've implemented server-side rendering (SSR), client-side rendering (CSR), and streaming data flows across the entire stack. Lately, I've been focused on AI processes: building FastAPI endpoints powered by embedding-based search and RAG pipelines with vector databases, integrating generative AI features, and running fine-tuning experiments on trained models to address domain-specific needs.

Drawing on my engineering background and management training, I adapt quickly to new challenges, communicate clearly with stakeholders, and continually refine solutions to align technical designs with business objectives. English Level: C2.

PROJECTS

Verify Influencers – January to February 2025
A full-stack web app built with Next.js 15, Tailwind CSS, and MongoDB to analyze and rank health influencers using AI-powered credibility assessments. It integrates the Perplexity API for extracting and structuring claims, leverages SSR for SEO and performance, and applies CSR for interactivity—enhanced by React Suspense and Server Actions for optimized data handling. The Mongoose-based backend supports advanced filtering and sorting, while streaming boosts performance. Combining AI, data processing, and modern web techniques, this app showcases strong full-stack development skills.

URL: https://verify-influencers-alpha.vercel.app/

Owen Partners – November 2024
Collaborated with an Australian financial advisory firm to enhance selected website's UI components and optimize its responsive design. Built on WordPress, the project also included integrating Calendly to streamline client meeting scheduling.

URL: https://owenpartners.com.au/

Invoice Dashboard – March 2024
Created as part of the official Next.js course by Vercel, this invoice dashboard includes server components, streaming, API data fetching, static and dynamic rendering, and loading skeletons. It showcases best practices in Next.js, PostgreSQL, and Tailwind CSS.

URL: https://nextjs-dashboard-htg7.vercel.app/dashboard

STACK & SKILLS:

AI & Machine Learning: Agents, Embeddings, Semantic Search, Retreival-Augmented Generation (RAG), Generative AI Integration, Chatbot Development, Fine-Tuning Validation, Vector Databases.

Databases: PostgreSQL, MongoDB, Supabase, Qdrant, Prisma, Mongoose, Sequelize.

Backend: JavaScript, TypeScript, Node.js, Express.js, Python, FastAPI.

Frontend: React, Vite, Next.js, Redux, HTML5, CSS, Tailwind CSS.

Tools & Methodologies: Git, Vercel, Render, Jest, Notion, Trello, RESTful APIs.

ACADEMIC FORMATION:

Project Management Diploma
Politécnico de Colombia
Medellín, 2025

Full-Stack Developer
Henry Bootcamp
Bogotá, 2023

Petroleum Engineer
Universidad de América
Bogotá, 2018

LANGUAGES:

English: C2 – Proficient.
French: A2 – Beginner.
Spanish: Native.

HIGHLIGHTS:

Meritorious Degree Work
Fundación Universidad de América
Bogotá, 2018

SABER PRO – National Tests for Higher Education Graduates:

• Above 98% of the national level.
• Above 97% of the engineering group.
Bogotá, 2017

SABER XI – National State Exams for High School Graduates:
2nd Place (Out of groups of 1000)
Bogotá, 2012.

Stayfy – August to October 2023
Book e-commerce SPA developed in React, featuring combined filters, shopping cart, payment gateway, admin panel, and authentication with Google account integration. I contributed as a backend developer, managing database models with PostgreSQL, implementing controllers for front-end responses, and developing components for product management.

URL: https://stayfy-mu.vercel.app/

Other projects: For additional information on these projects, please visit my portfolio (see header).

- Task Manager (December 2024): https://task-manager-eta-opal.vercel.app/
- Promotional Sweepstake (October 2024): https://sorteo-one.vercel.app/
- Greencall (September 2024): https://greencall.vercel.app/
- Mortgage Calculator (July 2024): https://mortage-calculator-swart.vercel.app/

EXPERIENCE

Junior Full-Stack Developer for AI Projects
Mankind Technologies | March 2025 – Present

- Built Python/FastAPI endpoints leveraging Qdrant embeddings and RAG-powered semantic search to support personalized chatbots.
- Led fine-tuning experiments on trained models, assessing performance on specialized datasets and optimizing deployment workflows.
- Developed frontend modules for an internal ERP using Next.js—implementing SSR and CSR, loading skeletons, Supabase file storage, authentication flows, PDF generation, and responsive design.

Audit Consultant
TF Auditores y Asesores Ltda. BIC | July 2023 - January 2024

- Conducted joint audits for Oleoducto de Colombia S.A.'s Infrastructure Project Management, evaluating compliance with PMBOK V6 in monitoring, control, and closure stages.
- Performed external audits on Pipeline Integrity Management Cycles (ODL and OBC systems), assessing processes based on API 1160 and NTC 5901 standards, risk levels, integrity plans and their implementation.

Junior Support Engineer
Oleoducto Central S.A. Ocensa / NRE SAS / PS International SAS | September 2021 – May 2023

- Created and maintained technical documentation for Maintenance, Integrity, and Onshore/Offshore Operations.
- Enhanced Ocensa's qualified personnel program by reviewing and updating training materials and evaluations. Analyzed RCA reports to identify key events and recommend preventive and corrective measures related to qualified tasks.

Other Professional Experience:

- **Professional I Petroleum Engineer:** Oleoducto Central S.A. Ocensa / NRE SAS | May – September 2019
- **Final Degree Project / Placement:** Ulterra Colombia | May 2017 – July 2018

COURSES AND CERTIFICATES

Frontend Fundamentals
EPAM Campus (ongoing)

Python Essentials 1 & 2
Cisco Networking Academy. March - April 2025

C2 – Proficient English Level.
EF English Standard Test. October 2023.

Energy Principles and Renewable Energy.
University of Queensland. September – December 2020.

Unconventional Reservoir Geomechanics Course.
Stanford University. April - June 2019.

Reservoir Geomechanics Course.
Stanford University. April - June 2019