

# SAMUEL DAVID HERNÁNDEZ CONTRERAS

SOFTWARE ENGINEER · FULL STACK DEVELOPER · CLOUD

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## PROFESSIONAL SUMMARY

Software Engineer with 4+ years of experience building web applications, backend services, internal platforms, and data-driven tools for enterprise and industrial environments. Proficient in Python, TypeScript, React, Docker, and cloud deployments. Skilled at translating complex business requirements into production-ready systems with clean APIs, maintainable architecture, and clear technical documentation. Currently targeting remote software engineering roles with a focus on FastAPI, AWS, and open-source contribution.

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## TECHNICAL SKILLS

**Languages:** Python, TypeScript, JavaScript, PHP, C#, Dart

**Frontend:** React, Angular, Vue.js, TailwindCSS, RxJS

**Backend:** FastAPI, ASP.NET Core, Django, Laravel, Node.js

**Databases:** PostgreSQL, SQL Server, MySQL

**Cloud & DevOps:** Docker, CI/CD, AWS (fundamentals), Git

**Data & BI:** Power BI, ETL concepts, data modeling

**Practices:** REST APIs, RBAC, Agile/Scrum, Architecture Decision Records, technical documentation

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## PROFESSIONAL EXPERIENCE

### Software Developer · Cables del Golfo MX

Nov 2025 – Present | Villahermosa, Tabasco, MX

- Architected a high-precision Engineering Platform for lifting system configuration, applying structured requirements gathering and technology selection aligned with DNV 2.7-1 and ASME B30.9 industry standards.
- Engineered a domain-specific Calculation Engine in Python that automates load distribution, component optimization, and safety-critical geometry validation, formalizing complex regulatory logic into reproducible, auditable workflows.
- Containerized the full application stack using Docker, implementing reproducible CI/CD environments that accelerated internal validation cycles and ensured deployment consistency across development and production.
- Built a React/TypeScript frontend with real-time capacity, cost, and stock comparison capabilities, applying structured component design patterns optimized for industrial configuration workflows (CPQ software).

### IT Consultant & Software Developer · Heavy-Lift Rigging Services & Consulting Mexico

Dec 2024 – Sep 2025 | Villahermosa, Tabasco, MX

- Led IT strategy engagements from discovery to delivery: conducted requirements workshops, evaluated vendor solutions, defined software architecture blueprints, and produced Architecture Decision Records (ADRs) aligned with enterprise architecture frameworks.
- Evaluated and benchmarked GraphQL vs. REST in ASP.NET Core microservices, producing structured written assessments comparing performance, scalability, and alignment with consulting best practices.
- Architected a hybrid affiliate platform using an event-driven, cloud-ready architecture — mapping business requirements to resilient, scalable system design consistent with cloud migration planning principles.
- Produced stakeholder-ready consulting deliverables, including solution architecture reports and post-implementation review templates, supporting executive decision-making processes.

### Software Developer · Heavy-Lift Rigging Services & Consulting Mexico

May 2023 – Jul 2024 | Villahermosa, Tabasco, MX

- Developed and maintained enterprise web applications in ASP.NET Core (C#), Angular, and SQL Server, ensuring performance, stability, and compliance with internal technical standards.

- Designed Power BI analytics dashboards for finance and operations teams, transforming raw operational data into structured KPI reports that informed executive decision-making.
- Built Angular/TailwindCSS interfaces with RxJS reactive patterns, applying structured component design principles consistent with enterprise UI and ITSM delivery standards.
- Engineered a mobile inspection application (Flutter/BLoC) for field data capture, optimizing data quality and real-time synchronization across multi-site operations.
- Contributed to Agile/Scrum delivery cycles using Jira, managing backlog refinement, sprint estimation, and iterative technical reviews in a structured delivery environment.

## Software Developer · GUMEC Soluciones Tecnológicas

Dec 2022 – Mar 2024 | Villahermosa, Tabasco, MX

- Led full-cycle development of a Document Management System (DMS) for the oil & energy sector using Laravel (PHP), Vue.js, and MySQL, migrating legacy processes to a cloud-hosted platform on IONOS Cloud.
- Engineered secure data processing modules for oil well performance analysis, implementing encryption and granular RBAC controls to protect confidential operational documentation — aligned with ISO 27001 security principles.
- Designed compliance automation tools using VBA macros to enforce NOM-024-STPS-2001 occupational safety standards, translating regulatory compliance requirements into validated technical workflows.
- Managed production deployments on cloud infrastructure, ensuring multi-site high availability, environment monitoring, and consistent service delivery.

## Programmer / Research Developer · Instituto Tecnológico de México Campus Villahermosa

Mar 2022 – Dec 2022 | Villahermosa, Tabasco, MX

- Built a full-stack geospatial web application using PostgreSQL, Django (Python), and React/Remix.js, applying relational data modeling, API integration, and structured backend architecture.
- Developed an augmented reality prototype in Unity/C# with HoloLens support, applying emerging technology evaluation in an academic R&D environment.
- Led the InnovaTec real-time sign language translation project, driving structured analytical problem framing, rapid prototyping, and technical decision documentation.

## RELEVANT PROJECTS

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### Data Engineering Pipeline Evaluation — AI Schema & ETL Validation Harness · *Open Source / Personal*

- Built a TypeScript/Node.js framework to evaluate AI-generated PostgreSQL schemas and ETL pipeline designs against expert-defined reference outputs.
- Implemented validation checks for normalization errors, missing indexes, data transformation issues, and weak DevOps pipeline configurations.
- Containerized the benchmarking environment with Docker to enable reproducible evaluation across multiple AI model outputs and prompt variations, producing structured gap reports.

### FastAPI SaaS Backend — Multi-Tenant Learning Platform · *Personal GitHub Project*

- Designed and implemented a FastAPI backend for a multi-tenant LMS-style SaaS platform with JWT authentication, tenant-aware data models, RBAC, and documented REST API endpoints.
- Modeled PostgreSQL schemas covering users, organizations, courses, lessons, enrollments, and progress tracking; added Docker-based local development, database migrations, and automated testing.
- Prepared the application for AWS deployment using containerized services and environment-based configuration.

## CERTIFICATIONS

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TOEFL ITP — English Proficiency (B1, Score 770462) · *Instituto Tecnológico de México*

## EDUCATION

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### B.Sc. Information & Communication Technologies Engineering

Instituto Tecnológico de México Campus Villahermosa

Aug 2019 – May 2024 | Villahermosa, Tabasco, MX