

# Sergio Fabian Acuña Madrid

---

Tamaulipas | Mexico | sergioac.madrid@hotmail.com | +52 8333903699 | Portfolio: [fabianmadrid.dev](https://fabianmadrid.dev)

Software developer with hands-on experience building modern web applications using the JavaScript ecosystem — React.js, Next.js, Node.js, and TypeScript. Currently working as a QA Intern, where I have developed End-to-End automation workflows using Playwright that are actively running within a production SaaS platform.

## Technical Skills

- **Frontend:** HTML5, CSS3, JavaScript, TypeScript, React, Next.js, Tailwind CSS, Sass/SCSS
- **Backend:** Node.js, Express.js, Python, Java, Spring Boot, PostgreSQL, MariaDB, MySQL, Prisma ORM, RabbitMQ
- **QA & Testing:** Playwright (E2E), Zod, Postman
- **Cloud & Workflow:** Cloudinary, Docker, Vercel, Render, Git/GitHub

## Professional Experience

### **Bitam de México (QA Intern)**

Jan 2026 – June 2026

- Developed End-to-End automation workflows using Playwright and TypeScript to replace repetitive manual QA processes, significantly reducing execution time and improving testing efficiency across critical SaaS operations.
- Monitored asynchronous task processing through RabbitMQ queues to validate request delivery, processing order, and execution timing within the production SaaS environment
- Wrote SQL scripts in MariaDB to validate data persistence, verify user profile updates, perform controlled test data cleanup, and ensure backend cURL requests were correctly processed by RabbitMQ queues

## Selected Projects

### **US Accident Risk Predictor (ML-Powered Traffic Analysis Platform)**

Nov 2025 - Present

- Engineered a Machine Learning pipeline using Python, Pandas, and Scikit-Learn to process and analyze over 7 million historical traffic records, achieving 74.14% predictive accuracy through feature engineering and data preprocessing
- Architected a FastAPI microservice to load and serve a serialized ML model in memory, exposing RESTful endpoints (/predict, /data) for real-time traffic risk inference.
- Designed a multi-service architecture integrating a Python ML engine with a Java + Spring Boot Backend-for-Frontend (BFF), delivering geospatial traffic risk insights to an interactive Leaflet-based map interface.

### **Bug Tracker MVP (Full-Stack Web App)**

Jan 2026 – Present

- Built a role-based ticket management system supporting Admin, Tester, and Developer workflows, with ticket assignment logic and historical change tracking for monitoring issue lifecycles
- Developed analytics dashboards displaying bug trends, unstable modules, reopen rates, ticket distribution by status, critical issue counts, and MTTR metrics to support engineering decision-making
- Implemented CSV export functionality for ticket records, enabling external reporting, data analysis, and workflow auditing

### **Yama Japanese Food MVP (Mobile-First Web Application)**

Jan 2026 – Feb 2026

- Developed a Mobile-First MVP web application for a sushi business, allowing users to filter menu items by preference, view business hours, access store location information, and interact with animated promotional badges
- Achieved 100/100 Google Lighthouse scores across Performance, Accessibility, Best Practices, and SEO on desktop, and 93/100 Performance on mobile through image optimization and responsive design practices.

### **AI Legislative Assistant (Mobile-First AI Chatbot)**

July 2025 – August 2025

- Developed a Mobile-First AI chatbot application for a university student, using prompt engineering techniques to reduce hallucinations and improve response relevance for domain-specific conversations
- Integrated the Google Gemini API into a React.js and Sass/SCSS frontend, while building backend request handling and API communication using Node.js and JavaScript

## Education

### **Instituto Tecnológico de Ciudad Madero**

Bachelor's Degree in Software Engineering (Specialization in Big Data)

Cd. Madero, Tamps

Expected August 2026

## Languages

Spanish (Native) & English (Advanced).