

DAVID LUCAS BAUTISTA

Senior Software Engineer | Node.js, NestJS, TypeScript, Angular, React | 6 years of experience

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SUMMARY

Senior Software Engineer with 6 years of experience building scalable web platforms, with a stronger focus on back-end development with Node.js, NestJS, TypeScript, and MongoDB. Designs secure REST and WebSocket APIs, multi-tenant architectures, and payment integrations, and delivers the Angular, React, and Next.js front ends that consume them. Drives code review standards, testing practices, and mentoring within global delivery teams serving banking and enterprise clients. Advanced English.

EDUCATION

Instituto Tecnológico Superior de Zongolica

Zongolica, Veracruz, Mexico

Bachelor's Degree in Computer Systems Engineering

2021

EXPERIENCE

NTT DATA

Remote, Mexico

Senior Software Engineer

2023 – 2026

Delivered enterprise applications for banking and food & beverage clients within global delivery teams, covering front-end architecture and close collaboration with back-end teams on API contracts, integration, and release quality.

- Worked side by side with back-end teams to define, consume, and validate REST API contracts across enterprise applications for banking and food & beverage clients.
- Built enterprise front-end applications with Angular, React, and TypeScript, owning architecture decisions with component-based design and performance optimization, including an Angular back-office admin panel for a food & beverage client.
- Built and maintained CI/CD pipelines with automated testing (Playwright, WebDriverIO, Appium) to ensure release quality and catch integration regressions early.
- Established code review standards and testing practices, and conducted code reviews to keep quality consistent across the team.
- Led technical interviews for developer candidates and mentored junior developers.
- Took part in client-facing technical discussions in English, translating business needs into technical decisions.

Nexora Technologies

Veracruz, Mexico

Software Engineer

2021 – 2023

Built SAGIM end to end (back end, web front ends, and mobile app), a multi-tenant GovTech SaaS platform that digitizes municipal services (treasury, appointments, property tax, public works, transparency, civil protection, and emergency security) for small Mexican municipalities.

- Architected and built the SAGIM back end with NestJS, TypeScript, and MongoDB (Mongoose) with compound and TTL indexes: a modular REST and WebSocket API documented with Swagger/OpenAPI that serves the admin dashboard, citizen portal, and mobile app.
- Designed multi-tenancy with a tenant ID on every entity, custom guards and interceptors that block cross-municipality access with 403 responses, and role-based access control across three roles.
- Implemented authentication with Passport.js and JWT (15-minute access tokens and rotating refresh tokens stored hashed), bcrypt password hashing, and a separate citizen login for the mobile app with OTP and per-device sessions.
- Hardened the API against the OWASP Top 10: Helmet security headers (CSP, HSTS), CORS allow-list, strict DTO validation (whitelist and forbidNonWhitelisted), per-endpoint rate limiting with @nestjs/throttler, and Swagger disabled in production.
- Built a real-time layer with Socket.IO (JWT-authenticated, tenant and department rooms, live token refresh) that powers treasury KPI dashboards, appointment and report updates, and emergency alerts.
- Shipped an emergency SOS module end to end: real-time GPS tracking, alert lifecycle management, masking of sensitive alerts in separate rooms, TTL-based retention of location data, and audited access to sensitive records.
- Integrated Stripe (Checkout and signature-verified webhooks), Cloudinary, Resend, private document storage with expiring signed URLs, and PDF receipts with RSA-SHA256 digital seals; added an idempotency middleware so payments, appointments, and SOS alerts execute exactly once on retries.

- Built an Adapter Factory for property-tax integration with legacy municipal systems (REST and SOAP) using a circuit breaker, exponential-backoff retries, and configurable caching.
- Added observability with Winston (daily log rotation), an immutable audit module (before/after changes), and Prometheus metrics (request counters, latency histograms, WebSocket gauges).
- Established quality and delivery practices: 440+ unit tests and 200+ integration tests (Jest) against a dedicated MongoDB Atlas environment, three isolated environments (dev, test, prod) with separate databases and storage, and Docker-based CI/CD to production for two municipalities.
- Built the front ends that consume the API: an Angular admin dashboard, a Next.js citizen portal, and a React Native (Expo) mobile app, with responsive interfaces for treasury, citizen services, and public works.
- Implemented real-time UI features over WebSockets and integrated Stripe, Mapbox, and PostHog on the client side.

Consultora Ohkasis

Mexico

Software Engineer

Sep 2020 – Jul 2021

- Designed and developed RESTful APIs with Node.js and NestJS that supported client-facing web applications.
- Developed front-end interfaces with Angular and React for those client-facing applications.
- Containerized and deployed applications with Docker, keeping development and production environments consistent.
- Worked directly with clients to translate business requirements into API endpoints, data flows, and user interfaces.

TECHNICAL SKILLS

Back-End: Node.js, NestJS, TypeScript, REST APIs, WebSockets (Socket.IO), Passport.js, JWT, role-based access control, multi-tenant architecture, Swagger/OpenAPI, Mongoose

Databases: MongoDB (Atlas, Mongoose, schema design, indexing), PostgreSQL (querying and data management)

Security: OWASP Top 10, Helmet, CORS, rate limiting, input validation, bcrypt, audit logging

Integrations: Stripe, Cloudinary, Resend, Mapbox, PostHog

DevOps & Observability: Docker, CI/CD pipelines, Git, Prometheus, Winston

Testing: Jest, integration testing, Playwright, WebDriverIO, Appium

Front-End: Angular, React, Next.js, React Native (Expo), JavaScript (ES6+), HTML5, CSS3

Languages: Spanish (native), English (advanced)

PROFESSIONAL DEVELOPMENT

- Agentic Design Patterns in TypeScript: tool use, planning, reflection, ReAct, multi-agent systems, and guardrails.