

Gustavo Maia Santos

Software Developer | TypeScript | Node.js | React

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Summary

Full-stack developer experienced in building and maintaining APIs and services in Node.js with TypeScript, Express and NestJS, as well as web and mobile interfaces with React and React Native. Focused on application quality, performance and security, with hands-on experience in REST APIs, SQL and NoSQL database integration (MySQL/Postgres/MongoDB) and building solutions for production environments, including enterprise platforms for large clients.

Experienced in applying architecture best practices, layered design, Git version control, automated testing and continuous code improvement through code reviews.

Experience with asynchronous processing, queues (Bull/Redis), caching and observability, as well as Docker, CI/CD pipelines and cloud storage (AWS S3, Azure Blob Storage) in professional settings. Used to working collaboratively with cross-functional teams following agile methodologies such as Scrum and Kanban.

Familiar with AWS and Azure and with deploying services to the cloud, with a constant focus on scalability, maintainability and the product's technical evolution.

Professional Experience

MID-LEVEL FULL-STACK DEVELOPER | KOEPE DO BRASIL | APRIL 2026 – PRESENT

- Working on a technology innovation project for a Corporate Mobility Platform serving large clients such as Petrobras, doing on-demand full-stack development (Node.js, React, React Native and MongoDB). Key deliverables:
- Built an event-driven export microservice in Node.js, NestJS and TypeScript with RabbitMQ, generating XLSX and PDF reports asynchronously. Streaming from MongoDB to AWS S3, presigned URLs, retries and a DLQ eliminated the memory overload that was bringing the API down. Full-stack integration in React with real-time updates, multi-tenancy and Docker;
- Led the performance and memory-usage investigation of a full-stack application. Optimized REST listing endpoints with on-demand field projection, selective populate in Mongoose and server-side search with result limits via the MongoDB Aggregation Pipeline. As a result, payload size dropped by up to 99.9% (10.8 MB → 11 KB) and latency by up to 96% (24.5 s → 1 s). Kept backward compatibility with the mobile apps and defined API contract conventions for the team;
- Developed a bulk document upload module with asynchronous background processing via queues (Redis), automatic linking of the extracted data to existing database records and file storage in the cloud (Azure Blob Storage), ensuring scalability and eliminating manual matching;
- Built a work schedule module for client companies' employees, letting managers centrally manage operational shifts and record events directly on the schedule screen — medical certificates, absences, days off and other workday events;
- Built a fully customizable working-hours policy module, with rules based on Brazilian labor law (CLT) and real-time validation of settings, showing explicit warnings whenever a configuration conflicts with legal requirements;

SOFTWARE DEVELOPER | ACESSO PONTO TECH | JUNE 2025 – MARCH 2026

- Developed and maintained electronic time-tracking and public procurement analysis solutions, focused on performance, security and scalability, serving EBSEH (Brazil's federal university hospital network) as the main client. Key deliverables:
- Developed an asynchronous queue architecture (Bull + Redis) for background ingestion and processing, ensuring end-to-end reliability, parallel execution with retries and a 99.7% reduction in API response time;
- Implemented Redis-first record deduplication (cache before DB), with generational cache rotation during daily log imports to prevent duplicates and stay consistent with events arriving in parallel;

- Designed and implemented robust integrations with external APIs based on asynchronous, batched event delivery, flushed by volume or time window. The solution handles multiple HTTP response scenarios, exponential retry, differentiated failure handling, isolation of invalid records and automatic alerts on critical failures, ensuring reliability, traceability and consistent processing of the captured data;
- Led the migration from local storage to AWS S3 with presigned URL uploads, cutting costs by 90% and optimizing 108,000 images (20 GB → 2 GB), with a near-zero-downtime production migration and lifecycle policies;
- Critically optimized an ERP with 50,000+ users, reducing response time by 98% (16 s → 200 ms) through caching, query optimization/refactoring and performance improvements;
- Improved reliability and operations: cut CPU usage by 60%+ and enabled an infrastructure downsizing (~50% savings), implemented observability (Grafana/Prometheus/Loki) with alerting (~75% detection), and automated backups with restore in under 10 min and 99.9% availability;

SOFTWARE DEVELOPER – FREELANCE | KASTELLY DESIGN | MAY 2025 – JUNE 2025

- Built a complete platform for managing clients, quotes, contracts, projects and finances for a custom furniture store;
- Backend in Java with Spring Boot, MongoDB Atlas, JWT authentication, Caffeine caching, PDF generation and delivery, tests with JUnit and Mockito;
- Frontend in Electron + React with Tailwind CSS, React Hook Form and Zustand for state management;
- API documentation with Swagger;
- Hosted on AWS EC2;
- Automatic UI updates via GitHub Releases

IT INTERN | COLÉGIO LICEU SALESIANO DO SALVADOR | OCTOBER 2024 – JUNE 2025

- Developed internal systems applying architecture best practices and agile methodologies;
- IT Asset Management System – built with Java + Spring Boot, frontend in React + TypeScript and Tailwind CSS, using MySQL, JUnit and Swagger;
- Service Request Form – built with Node.js + Express + TypeScript, frontend in React + Vite + TypeScript, in containers optimized for development and production. MongoDB Atlas as the database and Jest + React Testing Library

JUNIOR FULL-STACK DEVELOPER | REDGTECH AUTOMAÇÃO | FEBRUARY 2023 – APRIL 2024

- Improved the UX/UI of a React Native mobile app, enhancing navigation and the user experience;
- Refactored state management with the Context API, centralizing functions and reducing code complexity;
- Developed a desktop prototype with Electron, expanding IoT device integration;
- Implemented an asynchronous notification system using process queues to improve performance and responsiveness

Education

TECHNOLOGIST DEGREE IN SYSTEMS ANALYSIS AND DEVELOPMENT | FEBRUARY 2024 – PRESENT | UNIVERSIDADE SALVADOR

Skills

- Node.js, JavaScript, TypeScript
- Express, NestJS, Fastify, Layered Architecture
- React, Next.js, React Native, Tailwind, Zod, Yup, Zustand
- MySQL, Postgres, MongoDB, Redis, Prisma ORM
- AWS (S3, EC2, Lambda, CloudWatch), Azure Blob Storage, Docker, Linux, CI/CD, Git/GitHub
- Grafana/Prometheus/Loki
- Jest, Vitest, Supertest, Cypress
- WebSockets, BullMQ, RabbitMQ, Electron, Swagger, Postman/Insomnia, Keycloak