Gefferson Souza

Backend Engineer | Node.js, TypeScript, NestJS, PostgreSQL, RabbitMQ, event-driven and offline-first systems
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SUMMARY

Software Engineer since January 2024, building TypeScript backends (Node.js, NestJS, PostgreSQL, RabbitMQ) for multi-tenant retail systems in Brazil. My work includes offline-first operation and Brazilian tax e-invoicing integrations. Daily engineering practice includes automated tests, code review and observability.

WORK EXPERIENCE

Duofy, Goiânia, Brazil (remote) | Software Engineer | Apr 2025 – Present
Full-stack role, mostly backend work on a multi-tenant retail platform (point of sale and ERP), with offline-first operation and Brazilian tax e-invoicing integrations. Stack: NestJS, PostgreSQL, RabbitMQ.

- Restored sales for every affected client on New Year's Day, after a Brazilian tax authority began rejecting tax documents over new fields; I diagnosed and fixed it myself, on the holiday.
- Designed an offline-first contingency layer that queues point-of-sale transactions and reconciles them when connectivity is restored.
- Built a RabbitMQ synchronization engine with scheduled reconciliation that keeps point-of-sale and ERP data consistent through third-party outages.
- Built a request-context layer on Node.js AsyncLocalStorage that carries application type (POS, kiosk, checkout, pre-sale), version and business segment through each request across the monorepo, replacing manual metadata propagation.

Fox Grãos, Goiânia, Brazil | Software Engineer → Tech Lead | Jan 2024 – Apr 2025
Joined as a junior developer (Jan 2024); mid-level (Jul 2024); Tech Lead of a small team (Sep 2024).

- Automated CT-e, NF-e and MDF-e issuance: work that used to take one person full-time all year, and three at harvest, now runs when a grain-truck load ticket is created.
- Led the migration of monolithic services to Kubernetes on EKS.
- Mentored 4 developers.

SKILLS

Languages and frameworks: TypeScript, Node.js, NestJS, REST API design
Data and messaging: SQL (PostgreSQL), message queues (RabbitMQ)
Patterns: event-driven design, offline-first, multi-tenancy, Brazilian tax e-invoicing integrations
Infra and tooling: CI/CD (GitHub Actions), Docker, Kubernetes (AWS EKS)
Engineering practices: automated testing, code review, observability
AI-assisted delivery: Claude Code, agent workflows, MCP (Model Context Protocol) servers, quality gates (hooks)
Also used: NoSQL (MongoDB, Redis), ORM (TypeORM, Prisma), React, Electron, NX, Rust (side projects)

EDUCATION

Technologist Degree in Systems Analysis and Development, 2024 — Universidade Católica de Brasília, Brazil

LANGUAGES

Portuguese, native · English, professional written communication; conversational speaking
Time zone: UTC-3, one to two hours ahead of US Eastern.

PROJECTS

- Tyrus (experimental): TypeScript-to-Rust transpiler with Axum/Tokio code generation. github.com/Gefferson-Souza/Tyrus
- GoiásScript: esoteric programming language with a hand-written lexer and parser, compiled to JavaScript; 40 GitHub stars. github.com/Gefferson-Souza/goiasscript
- Personal setup: Claude Code quality gates (hooks), built after analyzing 3,454 of my own AI-assisted coding sessions (17.6% of my messages were corrections).