

# Neilor Caldeira

## Software Engineer and Engineering Leader · Realtime, logistics and operations platforms

Belo Horizonte, Brazil (UTC-3) · neilorcaldeira@gmail.com · neilor.dev · github.com/neilor · linkedin.com/in/neilorcaldeira · instagram.com/neilor.dev

### PROFILE

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I turn complex operations into software that stays in production, whatever the industry. For most of the last fifteen years that meant freight: driver hours, telemetry, fuel, maintenance, routing. Twice it meant hospitals, once a crypto exchange, and since 2026 it means reading other companies' codebases with AI agents so their boards can decide what to build and what to stop building.

The pattern in the work: find the point where the operation is blind, put live data in front of the person who has to act, and keep the system in production while it changes. I have founded engineering teams from zero, I direct a 30-person company, and I stay hands-on in the code of the projects I lead.

### WHAT I BRING

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- **Architecture for live systems.** Distributed realtime state (Firebase Realtime Database used well beyond its defaults: presence, indexed queues, optimistic transactions, emulated composite indexes), TypeScript monorepos shared across front and back end, event-driven integrations with ERP, EHR and IoT telemetry.
- **Operations literacy.** Business analyst before engineer. I have written the build-vs-buy proposal, run the vendor RFQ, negotiated the licensing, served as data protection officer, and sat with the driver, the nurse and the maintenance crew who use the screen.
- **Leadership that keeps building.** Hiring, code review, on-site and offshore squads (Brazil and India), board reporting. Since 2024 I have run a company.

### EXPERIENCE

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#### Co-founder · Kazan Group · January 2026 to present

Kazan Group applies AI agents to software delivery and codebase analysis for mid-sized companies. Co-founded with one partner; the company is new, the know-how behind it is not.

- **Code Intelligence.** Designed and operate a system where agents read a client's repositories through a three-level knowledge layer (project, repository, module) with source-hash staleness control and an explicit context budget. First engagement, February to May 2026: seven repositories of one client, findings delivered to its board and advisory council. The first session surfaced three P0 defects, including an unauthenticated public endpoint.
- **Architecture decision.** Authored the single-tenant vs multi-tenant analysis for a fleet platform (seven weighted criteria, 200+ files and 1,500+ references affected). When the team brought a cheaper path (an authentication BFF plus an ABAC authorization engine), I changed position in writing. The adopted path avoided a refactor estimated at several months.
- **StatusCNPJ.** Built a SaaS for bulk company-registry validation against the federal tax authority: queues, serverless functions, credits and payments. Essentially solo, January to June 2026.

#### Director of Operations · FACSS, telematics and fleet management · June 2024 to present

FACSS is a telematics and fleet-management product company. About 30 people, 11+ engineers.

- Run product, delivery, customer relationships and vendor negotiations. Visit customers, support proofs of concept, close contracts.
- Closed and kicked off the Aperam contract (telemetry and gamification for a mining operation), and answered Aperam's supplier and LGPD compliance assessment. Appointed Data Protection Officer in May 2025.
- Hired and manage offshore development squads in India, arranged so that the Indian team worked the Brazilian night for continuous coverage. Led the telemetry vendor RFQ for a fleet of 2,000+ trucks. Negotiated Looker licensing directly with Google. Visited Google and Datadog in New York (December 2024) to see how large-scale engineering organizations work.

#### Senior Staff Engineer (2019 to 2021), then CTO (2021 to 2024) · Lenarge, road freight carrier, 1,400 employees · October 2019 to January 2024

Lenarge is a large Brazilian road carrier (about 950 trucks in 2023). I had worked there as a business analyst in 2013 to 2016 and returned in 2019 to lead technology.

- **Build vs buy.** I came back to Lenarge with a proposal to create a technology directorate, approved in five business days. Then compared four paths for the fleet platform (external vendor, hybrid, in-house team, licensing) and wrote

the case to build. Founded the engineering function from zero and built the platform's foundation in December 2019.

- **The platform.** Designed around live fleet state in Firebase Realtime Database, so every screen is a view and every integration a writer, instead of per-request recomputation. TypeScript end to end (Lerna monorepo, six packages), MongoDB, PostgreSQL, SQL Server and BigQuery each for what it does best, 15+ IoT telematics integrations, 20+ external API consumers, 68 business modules. Responsible for its architecture through five versions in four years.
- **In production.** 20,000 partner drivers and 30,000 trips a month (figures presented publicly in 2023). Automated the monthly driver rewards program (roughly 800 drivers a month in 2022). Integrated the offline time clock, vehicle checklists via RPA, overweight detection, toll tags, and maintenance dashboards on shop-floor TVs that reduced idle time in the workshop.
- **Gerdau.** Led the telematics integration with Gerdau's Oracle Transportation Management, alongside Hitachi Consulting (October 2019 to February 2020). Gerdau and Aperam are clients of the platform today.
- **Leadership.** Reported to the board; hired the team; worked the software side of the merger with T-Mov (2022 to 2023). Spoke at The Developers Conference 2023 on the platform's realtime architecture.

**Senior Developer (contract, in parallel with Lenarge)** · Iron Fit, digital health · April 2020 to December 2021

- **Cassi telehealth, Covid-19 emergency (2020).** The teleconsultation app of Brazil's largest self-managed health plan was failing under pandemic load: patients from remote areas waiting hours in a queue and not being seen, and sessions crossing between users. Several consultancies were engaged. I asked to work in isolation on the code, found where patients connected inside the legacy system (PHP/Laravel and Parse Server), designed a new realtime service on Firebase (device presence with onDisconnect, indexed queues, optimistic transactions for pairing, emulated composite indexes, Twilio Video), wrote it over one weekend, and coordinated an offshore squad for the rest while the system stayed live. The queue, previously a black box, became a live dashboard for doctors, nurses and managers. The platform went on to report 500,000+ consultations by October 2021.
- **Hospital Sírío-Libanês (2021).** For the hospital's primary-care program for its own staff, decided to integrate with the Philips Tasy EHR already in use (.NET Core, Oracle) through the InterSystems HealthShare bus instead of running a parallel record: patient base import, roster management, VPN and SFTP, deployments. Named technical lead in weekly status reports to hospital leadership. Pilot live on 30 July 2021.

**Senior Engineer, then technical lead** · AllCoinWallet, later Trade Software, crypto wallet and exchange

· June 2018 to December 2019

- Hired to build the mobile app; within days invited to rebuild the platform. Led wallet and exchange architecture (order-book write consistency on Firebase transactions, client SDK), daily sprint reports to the board, code review, candidate interviews, web and mobile releases. Platform held about US\$2M in custody.
- Conducted the orderly decommissioning of the exchange in December 2019: order cancellation, withdrawal processing, balance reports. Kept building the successor product, Inkryptus, through 2025.

**Co-founder and technical lead** · MedBit / Aura Health, and Gamefik · 2017 to 2020

- **MedBit (2017 to 2018):** conversational triage before the medical consultation, built on symptom-checker models of the time; evaluated Infermedica and Pried APIs. Wrote the entire backend and the front-end architecture. Selected for the BioStartup Lab of Biominas Brasil and placed second in the Lemonade program. Closed in 2018.
- **Gamefik (2017 to 2020):** gamification for language-school networks with a physical rewards totem (RFID, Raspberry Pi prototypes, Electron). Responsible for product, technical hiring, iOS and Android releases and engineering documentation. Customers included SEED Idiomas and Cultura Inglesa. Exited as a partner in January 2020.

**Co-founder** · Tech2N (99 Frotas, BART, Roteia) · 2016 to 2017 (company incorporated February to June 2017)

- Freight marketplace and public route-and-cost calculator, proposed as fleet management borrowing concepts from aviation systems (the co-founder came from an airline's IT). Built the geospatial foundation: S2 cell indexing, polyline encoding, Open Location Code, routing. The company closed after four months; the geospatial work carried through the next decade of fleet software.

**Business Analyst** · Lenarge · January 2013 to November 2016 (first stint in 2011)

- **Driver Law (2013).** Law 12.619 gave truck drivers the right to a faithful record of their working hours. Built the company's first hours-of-service and time-off control (PHP, jQuery), which drew attention from other carriers.
- **Driver Monitoring department (2013 to 2014).** Proposed and led a new department, independent from operations and reporting to the legal directorate, with a four-person team, defined process and measured output (Google Sheets with Node.js integrations). Promoted my successor by 2015.
- **Fleet OK (2015 to 2021).** Volvo Dynafleet telemetry was stuck in a local machine and used only to audit drivers after the fact. Built an application that read it and fed a monthly fuel-efficiency ranking and rewards program, giving the

data back to the driver. Registered by Volvo as the company's fleet administrator. Extended to a sister company in 2016.

- Also: ERP integrations (Rodopar), fiscal document (CT-e) tooling, hours synthesizer for driver payroll, fiscal compliance blocking of 103 customers, EBITDA and management dashboards with the company's advisor.
- **2011, first stint.** Hired to build the company website; solved a demurrage closing that occupied four to five people with a process, a spreadsheet and a CSV integration with the tracking vendor.

**Founder** · Agência Selo, web agency · 2008 to 2010

- Websites for regional companies, many of them carriers (Flash and ActionScript, then HTML, CSS, JavaScript and WordPress), plus resold hosting as recurring revenue. Four people. Closed in 2010 after an attack wiped every client site; refunded the clients. Version control and backups have been non-negotiable since.

## **SPEAKING, COMMUNITY AND OPEN SOURCE**

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- **The Developers Conference 2023, Node.js track:** "Unlock realtime mode in your apps" (talk in Portuguese). Published on the conference's official channel.
- **Firebase BH (2017 to 2018):** founded eleven days after Google I/O 2017, spoke alone at the first meetup ("Cloud Functions, serverless"), published a starter kit the next day. Grew to 130+ members. Also organized Vue.js BH and coding dojos.
- **Public code:** async-task-runner-js (TypeScript, 2025); cordova-plugin-firebase-native (Java, 2017, used by others); firefunctions, a CLI for Firebase Cloud Functions projects; starter kits and boilerplates for React, Redux, ReactXP, Electron and Ionic (2017 to 2019).
- **Mentoring:** promoted and coached my successor in the driver monitoring department; ran code review and hiring at AllCoinWallet; treated offshore squads as peers with direct customer context, which is why they stayed productive.

## **TECHNOLOGIES**

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**Languages:** TypeScript, JavaScript, Node.js; earlier Ruby, PHP, CoffeeScript, Java (Cordova plugin), C# (.NET Core), Delphi.

**Front end and mobile:** React, Ember (early adopter, 2013), PWA, Cordova/Ionic, React Native, Electron.

**Backend and data:** Firebase (Realtime Database, Cloud Functions, Hosting, Auth), Google Cloud (Cloud Run, BigQuery, Looker), MongoDB, PostgreSQL, SQL Server, Oracle, Parse Server, Twilio Video, Terraform, n8n.

**Domains:** fleet telematics and IoT integration, routing and geospatial (S2, polylines), ERP and fiscal documents (CT-e, MDF-e), EHR integration (Tasy, InterSystems HealthShare), Oracle Transportation Management, order books, AI-assisted code analysis.

## **EDUCATION AND LANGUAGES**

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Information Systems, Universidade Federal de Minas Gerais (UFMG), 2012 to 2015.

Portuguese (native), English (fluent).