

Fabio Luiz Nery de Miranda

SENIOR SOFTWARE ENGINEER

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SUMMARY

Full-stack software engineer with 20+ years building production web applications, with the deepest specialization in payment and integration APIs. At Donorbox I was the hands-on CTO of an embeddable donation product on thousands of nonprofit sites: I owned the payment stack (Stripe Connect, PayPal Billing Agreements, ACH, SEPA, Google Pay, Apple Pay), the billing redesign that moved fee collection to the transaction moment, the front-end modernization and its component style guide, and the growth of engineering to twelve people. At 7Gen I built both halves of a fleet-electrification platform: the ingestion pipeline behind 30+ heterogeneous charging-station and telematics APIs, and the React and TypeScript dashboards, maps and simulators on top of it. I design partner-facing APIs, have integrated more than thirty heterogeneous third-party systems, and have coordinated globally distributed and offshore engineering teams .

CORE SKILLS

Languages: Ruby, Python, TypeScript, JavaScript, Java, SQL

Back end: Ruby on Rails, FastAPI, Flask, Node.js, NestJS, REST APIs, GraphQL, Webhooks, Sidekiq, BullMQ, Amazon Simple Queue Service (SQS), microservices, API design and versioning

Payments and fintech: Stripe Connect, PayPal Billing Agreements, Adyen, Automated Clearing House (ACH), Single Euro Payments Area (SEPA), Google Pay, Apple Pay, Boletos Bancarios, Cielo, fee splitting, recurring billing, reconciliation, fraud detection, Payment Card Industry (PCI) aware design

Data: PostgreSQL, MongoDB, Redis, data pipelines, Extract Transform Load (ETL), reporting

Infrastructure: Amazon Web Services (AWS), Google Cloud Platform (GCP), Docker, Kubernetes, Terraform, Heroku, Infrastructure as Code (IaC), GitHub Actions, Linux

Quality and operations: Test Driven Development (TDD), Behavior Driven Development (BDD), Minitest, Pytest, Jest, Playwright, Datadog, Sentry, on-call and incident response, code review

Front end when needed: React, Next.js, Hotwire, Stimulus, HTML5, CSS

AI-assisted delivery: Claude Code, Cursor, Model Context Protocol (MCP), agentic development workflows

EXPERIENCE

Software Engineer, Independent

Self-employed · Vancouver, BC (Remote) · January 2026 to Present

- Build and publish open-source agent harnesses and orchestration tooling: worktree isolation, playbook-driven task lifecycles, review gates and stopping conditions for long-running automated loops.
- Explore spec-driven and loop-engineering approaches to agentic development, where the written specification is the durable artifact and the agent loop is the execution mechanism. Built a Stylelint plugin for indented-syntax Sass files, 23 rules under a 340-case test suite.

Senior Software Engineer

7Gen · Full-time · Vancouver, BC (Hybrid) · December 2021 to December 2025

- Designed and built the carbon-credit incentives methodology and processing pipeline for commercial electric-vehicle fleets, integrating 30+ heterogeneous charging-station APIs and telematics feeds into one reporting system. Accepted by external legal verifiers for 30+ customers; generated CAD \$500,000+ in its first year.
- Unified fragmented fleet data from Geotab and multiple charging-station platforms into one dashboard, replacing per-vendor manual reconciliation with real-time management of chargers and vehicles.
- Replaced a manual spreadsheet process with a total-cost-of-ownership simulation service covering financing, charging infrastructure, electricity, maintenance and incentives, and integrated it with the vehicle procurement and pricing database over a GraphQL API so quotes stayed consistent with live inventory.
- Worked directly with finance, operations and external verifiers to turn regulatory requirements (Clean Fuel Regulations, Low Carbon Fuel Standard, Clean Fuels Program) into implementable specifications.

Chief Technology Officer (hands-on)

Donorbox · Contract, full-time · United States (Remote) · April 2017 to September 2021

- Owned the payment stack for an embeddable donation product installed on thousands of nonprofit websites, a drop-in module that had to work inside site environments we did not control. Scaled processing through Stripe Connect and PayPal Billing Agreements to absorb peak year-end giving volume.
- Redesigned billing to split platform fees at the moment of donation rather than invoicing at month end, removing collection risk and pulling revenue recognition forward.
- Expanded payment coverage with ACH, SEPA, Google Pay and Apple Pay, raising donor conversion across international markets.
- Built donor self-service: a portal for managing recurring donations and generating annual tax receipts, which cut repetitive support volume.
- Kept a platform carrying money continuously upgradable: incremental Ruby and PostgreSQL upgrades, security patching and fraud detection, without downtime.
- Cleared technical debt accumulated since 2014 by introducing automated testing and coding standards across a globally distributed team, and sat in the engineering support rotation, documenting and automating resolution of recurring customer issues rather than routing them back.
- Hired and coordinated the first three engineering squads, growing the team to 12 engineers and designers across time zones including offshore contributors.

Senior Software Engineer

Easy Food do Brasil S.A. (Nutrebrm) · Contract, full-time · Brazil (Remote) · September 2014 to April 2017

- Built cashless payment for school cafeterias serving 300+ schools across Brazil, integrating bank slips and credit cards through Adyen.
- Automated financial reconciliation by implementing fee splitting between cafeterias, parents and schools, replacing manual distribution of funds.
- Built bulk student onboarding via CSV import with prepaid card generation at scale, and a business intelligence application giving operators real-time visibility into cafeteria performance.

Freelance Software Engineer

Independent · Brazil · March 2013 to December 2015

- Built Brazilian payment processing for PagPop: Boletos Bancarios, Cielo credit cards and interactive voice response automation.
- Reduced patient no-shows for Avela with an appointment and payment reminder service over SendGrid and Zenvia SMS, delivered one-week MVPs at He:Labs and StartupDev, and contributed to Lumina Datamatics' RightPhoto rights-licensing platform.

Earlier experience

Brazil · March 2004 to February 2013

- **Senior Software Engineer, Innvent - Innovation & Venturing** (April 2012 to February 2013). Built a payroll budgeting application for Vale's Mozambique operation covering relocation, benefits, housing and bonuses, and introduced behavior-driven development to validate requirements with stakeholders before implementation.
- **Senior Software Engineer, Concrete Solutions** (December 2010 to March 2012). Built VC Globo.com, a citizen-journalism platform for Globo.com with an editorial review workflow, and led the Python team delivering Globo Promocoes, a national ticket-giveaway portal.
- **Software Engineer, Airframes Engenharia e Estrategia** (April 2005 to December 2010). Built the meuCTM maintenance backend for a fleet of 26 Boeing 737-300 aircraft: check scheduling, component life tracking, airworthiness-directive compliance, parts stock and logistics.
- **Software Engineer, Boldcron Technologies** (March 2004 to September 2004). XML and web development.

EDUCATION

Bachelor of Computer Engineering, Instituto Tecnológico de Aeronautica (ITA), Sao Jose dos Campos, Brazil

Languages: English (full professional), Portuguese (native), French (basic)