

Gil Lopes Bueno · Principal Software Engineer · Sao Paulo, Brazil (UTC-3)

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I am a Principal Software Engineer, focused on shipping AI-driven backends that hold up in production, with 19+ years of experience and over 50 delivered projects. Most of my career has gone into backend systems that hold up under real scale. I architected a logistics platform that processed 50M+ invoices for 60,000 couriers, and a wallet that moved more than \$1 billion in volume.

Lately I've focused on putting AI to work inside real products. I've integrated LLM-powered agents into development and auditing workflows, and built tooling that turns natural language into working software. What I care about is shipping systems that stay reliable in production, not demos.

I've also spent 8 years in Web3 and 12 years leading teams of up to 30 as a Tech Lead. Today I enjoy building AI-driven backends the most. I'm strong in solution architecture and distributed systems, and comfortable talking to the people who depend on what I ship.

Notable Achievements

- Neon Wallet – US\$1B+ in traded volume
- iTrack – 50M invoices; 60k couriers; 2k companies
- Sharity – R\$2M in donations; 100k users
- Multilaser Runin – Embedded in 20M+ devices
- Apptite – US\$1.6M GMV; 100k orders; 50k users
- Desabafa – 700k posts

Skills

BACKEND: Node.js (2012-2025), Java (2008-2024), Kotlin (2016-2024), MySQL (2013-2024), PostgreSQL (2013-2025), NoSQL (2018-now), Prisma (2021-2025), GraphQL (2021-2024), REST (2012-now), WebSockets (2016-2025), Microservices (2019-now), Distributed Systems (2019-now), Solution Architecture (2016-2025), Redis (2015-2024), Docker (2016-now), AWS (2013-2025), ECS (2016-2025), S3 (2015-2025), SNS (2015-2025), SQS (2015-2025), Terraform (2019-2025), CI/CD (2018-now), GitHub Actions (2020-now), C# (2018-2024), Python (2018-2024), Express (2012-now), TypeGraphQL (2021-2024), Apollo (2021-2024), Jersey (2020-2023), PayPal (2016-2020), Elasticsearch (2019-2025)

AI ENGINEERING: AI Process Automation (2025-now), Agent Development (2025-now), MCP (2025-now), Claude Skills (2025-now), Harness Engineering (2026-now), Spec-Driven Development (2025-now), Claude (2025-now), Anthropic API (2025-now), OpenAI API (2023-now), Claude Code (2025-now), Cursor (2024-now), Context Engineering (2025-now), Agentic Workflows (2025-now), Evals (2025-now), RAG (2024-now)

WEB FRONTEND: JavaScript (2008-now), TypeScript (2016-now), React.js (2016-now), Next.js (2021-now), Tailwind (2020-2025), SvelteKit (2023-2024), Chakra UI (2020-2023), React Query (2021-2025), Redux Toolkit (2021-2024), ECharts (2019-2025), Valtio (2023-2025), Vite (2022-2025), Jest (2018-2025), Playwright (2023-2024), Storybook (2020-2024), React Hook Form (2020-2023)

BLOCKCHAIN: Ethereum (2020-now), Solidity (2020-now), Hardhat (2020-now), Foundry (2025-now), Protocol Architecture (2023-now), Fuzzing (2023-now), Gas Optimization (2023-now), Wagmi (2023-now), Viem (2024-now), The Graph (2023-2025), Solana (2021-2025), Flow (2022-2023), Neo N3 (2021-2024), VM Compiler Development (2018-2024), Wallet Development (2021-2025), NFT (2018-2023), Crypto Currency (2018-2024), DEX (2021-now), AMM (2023-now), Ethers (2021-2025), Audit Prep (2023-now), Slither (2023-now)

LANGUAGES: English (C2), Portuguese (Native)

Work Experience

33Labs • Software Engineer | Main Smart Contract Developer • Sep 2025 - current

At 33Labs (formerly 33Audits), I've worked on the design and development of advanced DeFi protocols, focusing on composability, capital efficiency, and developer experience.

The company began as a smart contract auditing firm, which has given me hands-on, daily experience identifying and preventing vulnerabilities. I've developed protocols end to end — architecture, implementation, and testing — with security and gas optimization as constant priorities. That led me to a key conviction: the auditing process should start at the architecture stage, before any code is written. To support it, I've integrated specialized tooling and AI agents into the development and auditing workflow.

Tech: Solidity, Foundry, Ethereum, EVM, Uniswap V3, Uniswap V4, System Architecture, AI Tooling, REST · <https://www.33labs.ai/>

Simpli • Co-founder | Software Engineer | CTO • Oct 2013 - May 2025

I co-founded Simpli as a two-person startup focused on building a B2C mobile product, which quickly evolved into a fast-growing software house serving a wide range of clients. In its first year, the company pivoted to delivering custom distributed applications and scaled organically through consistent delivery and client satisfaction. Over 11 years, we delivered 50+ successful digital products for both startups and enterprise clients, while also launching and maintaining our own proprietary platforms.

From the beginning, Simpli was an early adopter of emerging technologies like mobile development and blockchain. I played a key role in shaping both the technical direction and business strategy of the company, leading system architecture, technical roadmaps, and documentation, and building an engineering org of 30 including 5 team leads. My work ranged from hands-on technical leadership to driving innovation through research, process design, and technology adoption — helping turn product ideas into real businesses by aligning technical execution with market opportunities.

Provisioning AWS infrastructure was a recurring part of that work. With 50+ projects, we needed a standard: a checklist for spinning up a new account, a baseline set of IAM roles, and a reusable Terraform starter kit so no project's infra started from a blank page — the same template became a paved road that sped up every project's first deploy. Cost optimization started reactively, after a client flagged a high AWS bill, but past a certain point we set up anomaly-alert triggers instead of waiting for the next complaint.

Tech: Java, Kotlin, C#, TypeScript, Node.js, React.js, React Native, Next.js, Angular, SvelteKit, Android, iOS, Xamarin, Electron.js, JQuery, Backbone, Python, R, MySQL, PostgreSQL, Redis, GraphQL, Jersey, AWS, ECS, S3, SNS, SQS, Web3, Blockchain, Smart Contracts, Cryptography, Cadence, Flow, Prisma, WebSockets, PayPal, Elasticsearch, REST, JavaScript, Tailwind, React Query, Redux Toolkit, ECharts, Valtio

Simpli • Enclave Wallet • Software Engineer | Product Owner | UI/UX Designer • Jun 2024 - Feb 2025

Enclave is a Wallet built to embrace non-blockchain users. It combines cutting edge technologies like Abstract Accounts, WebAuthn and Gasless transactions to make onboarding as smooth as a traditional web application — paired with a full on-chain activity explorer. Working with a small team, I was responsible for the product vision, usability, and development of the whole wallet frontend, contributed to the Smart Contracts, and led the system design of the indexer and API behind the explorer. One example of that indexing work: handling chain reorgs. Every block was stored keyed by its own hash and its parent's, so detecting a reorg meant walking back parent hashes until the indexer found one it already had — the fork point. From there, the orphaned blocks and the balances derived from them were invalidated, and the canonical chain was replayed forward through idempotent handlers, so reprocessing never double-counted a transaction.

Tech: TypeScript, React.js, Next.js, Node.js, PostgreSQL, AWS, ECS, S3, SNS, SQS, Smart Contracts, Cryptography, Prisma, WebSockets, Elasticsearch, REST, Tailwind, React Query, ECharts, Valtio · <https://enclavewallet.com>

Simpli • Neon Wallet • Software Engineer | TechLead • July 2021 - July 2024

Neon is the leading wallet in the Neo ecosystem, with over \$1 billion in traded volume. I was responsible for architecting its mobile version and later contributed to the desktop app. During my time on the project, I tackled key challenges such as supporting multiple blockchain networks, managing multiple accounts simultaneously, implementing WalletConnect integration, and developing the protocol for network interaction, along with several other critical integrations.

Tech: TypeScript, React.js, React Native, Blockchain, Electron.js, REST, React Query, Redux Toolkit · <https://coz.io/neon-wallet/>

Simpli • Sharity • Software Engineer | TechLead • Mar 2021 - Aug 2024

Sharity was a crowdfunding platform for charitable causes that I built from creation through scaling, growing it past 100 thousand users. It was eventually sold to Abacashi, a bigger competitor, and I was invited to lead the engineering side of that merger in recognition of the quality of Sharity's system — refactoring Abacashi's legacy C#/Angular codebase over to Node.js and React with the platform staying live the whole time, using a Strangler Fig strategy to migrate it piece by piece instead of a big-bang rewrite. One example of the work on Sharity itself: an event-driven achievements system, with badges and real-time progress bars for challenges that could chain off one another. Business events flowed through SQS, and idempotency was enforced by inserting each event's ID into a dedupe table in the same MySQL transaction as the counter increment, so a duplicate delivery just aborted instead of double-counting; chained challenges unlocked themselves by publishing a follow-up event back onto the queue, with no need for global ordering. It held up at 100k+ users, and was later reused as-is inside Abacashi after the merger.

Tech: TypeScript, React.js, Kotlin, Java, Node.js, Next.js, GraphQL, MySQL, AWS, SQS, C#, Angular, Prisma, Elasticsearch, REST, S3, ECS, Tailwind, Redux Toolkit, ECharts · <https://sharity.com.br> · NeoFeed: Abacashi acquires Sharity

Simpli • LDC's She Digital • Software Engineer | TechLead • Oct 2019 - Nov 2020

Louis Dreyfus Company, one of the largest commodity traders in the world, commissioned a 'Safety, Health, and Environment' management platform for use across all its global units — each with its own local regulations, forms, and reporting requirements. I owned it end to end: architecture, development, and integration with Azure Active Directory for authentication and user management. The core challenge was translating that sprawl of per-unit requirements into one flexible application instead of one branch per country, so I modeled forms, fields, and workflows as configurable data instead of hardcoded screens — letting a

compliance team in a new unit stand up its own SHE process by configuring the platform, not by requesting a code change and a deploy.

Tech: TypeScript, React.js, Kotlin, Java, MySQL, REST, AWS, ECS, ECharts

Simpli · Jamef Customers Dashboard • Software Engineer • Jun 2019 - May 2022

Jamef, the largest shipping company in Brazil, needed a new dashboard for customers to track delivery data, but the existing one suffered from severe performance problems. My scope started as frontend-only, but tracing the slowness back to its source pulled me into the data layer. I introduced a caching layer and a server-side pagination policy for the result set, taking a query that took 8 seconds down to a few milliseconds. I delivered a complex dashboard with several customized graphs and contributed to restructuring the underlying central system.

Tech: TypeScript, React.js, Java, Redis, REST, AWS, ECS, ECharts

Simpli · iTrack • Software Engineer | TechLead • Nov 2016 - 2024

I was the lead engineer who built iTrack Brasil from the ground up, owning its system design through its first two years and scaling it into a B2B delivery platform integrating multiple systems, with nearly 60,000 couriers and over 50 million invoices processed across 2,000 registered companies — growth that led to its acquisition by MadeiraMadeira in 2021. Simpli carried it through that acquisition and ran it three more years before handing it over in 2024, with me on it as CTO, coming back alongside the team when the work needed the depth. One of those returns: a billing alarm caught Postgres costing disproportionately more at fiscal month-end, and Performance Insights traced it to clients posting invoices one per request instead of in batch — a transaction, and a WAL flush, per invoice, which no instance class fixes. Ingestion moved behind an SNS/SQS fan-out with workers committing in batches, and that fix exposed a second write load underneath: courier position pings, which moved to Redis for last-known position with compressed CSV history on S3.

Tech: TypeScript, React.js, Kotlin, Java, AWS, S3, SNS, SQS, Redis, PostgreSQL, ECS, REST · <https://itrackbrasil.com.br>

Simpli · Apptite • Software Engineer | TechLead • Sep 2015 - July 2017

Apptite was a food delivery app for iOS, Android and the web. It gained recognition with acceleration by '500 Startups' and media coverage that established it as an important platform in the artisanal food market. I was the main engineer responsible for the platform from its initial planning and structuring through scaling it as it grew. One example of that scaling work: the dish recommendation engine. The map was discretized into cells, each holding the list of stores that served it, updated in batch whenever delivery areas changed — so the geographic lookup itself was just a cached read. Personalization ran on top of that already-filtered set, combining complementary signals in parallel (repurchase history, regional popularity, among others), with the heavier estimates — including a store-by-cell matrix — precomputed offline.

Tech: Android, Java, MySQL, Redis, S3, SNS, SQS, ECS, ElasticSearch, REST, AWS, JavaScript

Simpli · Multilaser Runin • Software Engineer • Aug 2014 - Oct 2014

Multilaser, one of Brazil's largest cell phone and tablet manufacturers, faced high demand for quality control testing that had been done by hand on the assembly line. I led development of the Android app that automated it instead — running CPU, RAM, GPS, screen brightness, and touch checks — and it has since tested over 20 million devices. One example of that work: each check had its own pass/fail criteria and its own margin for hardware variance, so the real problem wasn't running the tests, it was collapsing five independent, noisy hardware signals into one deterministic pass/fail a line worker could act on in a couple of seconds, fast enough to keep up with a production line moving tens of thousands of units.

Tech: Android, Java, REST

SIMET - NIC.br • Software Engineer • 2010 - 2013

At NIC.br, I worked on SIMET, Brazil's official internet quality measurement tool used by regulators and ISPs alike. The flagship SIMET application still ran as a Java Applet at a time when browsers were starting to lock those out for security reasons, so I proposed and led its migration to plain JavaScript before that became an emergency. Beyond the core tool, I built SimetMapas, visualizing internet quality heat maps across Brazil, and dashboards consumed directly by internet operators and regulatory agencies. I also contributed to SimetBox, a Wi-Fi router built to run these tests automatically, and to an Android testing app with its own custom graphics library for rendering results on constrained hardware.

Tech: JQuery, Backbone, Java, Android, REST, JavaScript · <https://simet.nic.br>

FingerPrint, Escala, NetStartup • Software Engineer • 2007 - 2010

My first three engineering jobs — web applications in PHP and Java, JavaScript front-ends and MySQL.

A selection of projects — the complete history, including those under Notable Achievements, is at <https://gil.solutions>

Education

Pontifícia Universidade Católica de São Paulo (PUC-SP) • Bachelor, Computer Science • 2008 - 2011