

Fernando Gomes

São Paulo, Brazil | hi@fernandogomes.dev | [LinkedIn](#)

Principal Full Stack Engineer & Architect with 18+ years of experience **bridging the gap between robust enterprise backends and modern web applications. Expert in modernizing legacy systems (Java/Monoliths) into scalable Cloud-Native architectures using Node.js, React, and AWS. Applying Agentic Workflows to accelerate development cycles. Proven track record of handling high-concurrency environments for global clients like JP Morgan and American Express.**

Technical Skills

- Languages: Node.js (TypeScript), Java (Legacy Modernization), Python, JavaScript.
- Frontend: Next.js, Tailwind CSS.
- Cloud & DevOps: AWS (ECS, Lambda, S3, RDS), Kubernetes, Docker, CI/CD, FinOps.
- Architecture & Data: Microservices, Event-Driven Architecture, System Design, PostgreSQL, Oracle, DynamoDB, Redis, FHIR.
- Emerging Tech: AI Agents, LLMs (OpenAI/LangChain), Agentic Workflows.

Experience

Founding Engineer | Stellula & The Collab | Aug 2024 – Present

- Architected the **IT Strategic Roadmap** for **Caixa Loterias**, designing a future-proof, cloud-native infrastructure capable of supporting **billions of annual transactions** for one of Brazil's largest lottery operations.
- Developing **AI Agentic Workflows** using **Python and LLMs**, automating complex business analysis and due diligence processes, reducing manual effort by **40%**.
- Building full-stack MVPs using **Next.js and Node.js** to rapidly validate investment theses, acting as the primary technical architect for the venture builder's portfolio.
- Established the **Technical Due Diligence framework** for a Private Equity Fund (FIP), assessing the scalability, security, and code quality of target startups in **Fintech and Healthtech**.
- Acted as a strategic technical advisor to executives and investment partners, influencing long-term technology and portfolio decisions.
- **Skills:** Python, GenAI (LLMs), System Design, Enterprise Architecture, Next.js.

Engineering Lead | Hospital Sírio-Libanês | Oct 2021 – Aug 2024

- Engineered a **FHIR-based Health Lake** on AWS, creating a standardized data layer that **reduced partner integration time by 50%** (from weeks to days).
- Architected the **Digital Urgent Care platform**, migrating legacy components to microservices to support **15,000+ monthly consultations** with **99.99% availability**.
- Led organization-wide FinOps initiatives in partnership with engineering and finance leadership, optimizing AWS resource allocation and achieving a **20% reduction in monthly cloud costs** while scaling operations.
- Designed the cloud-native architecture for the **Sírio-Libanês Medical College**, enabling a scalable platform capable of handling **3,000+ concurrent students** during critical exam windows.
- **Skills:** AWS, FHIR, FinOps, Microservices, Kubernetes, Node.js, System Design.

Software Engineer & Tech Lead | Banco BV | 2017 – 2021

- Engineered the **Wholesale Financial Calculation Engine**, a high-performance Java system processing complex indicators (MtM, Accrual) for derivatives and corporate loans, enabling the Treasury to manage the bank's market position in real-time.
- Founded and institutionalized the **Microservices Architecture Practice**, defining the foundational design patterns, security standards, and governance that guided the bank's transition from monolithic to distributed systems.
- Architected the **Core Accounting & Contract Processing Engine**, responsible for managing over **R\$ 10 Billion (approx. \$2B USD)** in assets, ensuring zero-defect compliance for the Central Bank.

- Led a **Distributed Engineering Team of 30+ developers** across Brazil and India, implementing async workflows that ensured 24/7 development cycles.
- **Skills:** Java (High Performance), Microservices Governance, Treasury Systems, Oracle, Distributed Teams.

Senior Backend Engineer | Talent / Deal Technologies | 2015 – 2017

- Developed critical workflow automation systems for financial markets using **Event-Driven Architecture**, increasing operational efficiency by **30%**.
- Implemented integration patterns (Broker) to synchronize data between distributed systems in a high-security banking environment.
- **Skills:** Java EE, IBM BPM, Event-Driven Architecture, SOA.

Senior Java Developer | CI&T | 2012 – 2015

- Built the **Internet Banking platform** for Banco Fibra from scratch, delivering **15 major releases** with **100% deadline adherence** over 1.5 years.
- Developed regulatory compliance modules for Banco Votorantim, translating complex financial rules into robust Java code.
- **Skills:** Java, Spring Framework, Hibernate, Jenkins, JUnit, SQL.

Software Engineer | EverMobile | 2005 – 2012

- Developed secure Internet Banking solutions and mobile payment gateways for top-tier global financial institutions including **JP Morgan, American Express, and Banco Venezolano**.
- Implemented high-security protocols for early mobile financial transactions, establishing a strong foundation in AppSec and data encryption.
- **Skills:** Java ME, J2EE, SSL/TLS, Cryptography, Mobile Architecture.

Education

- **MBA in Technology for Business (AI, Data Science, Big Data)**, PUCRS, Brazil (Expected 2026)
- **Bachelor of Computer Science**, Centro Universitário Nove de Julho, Brazil | 2000–2004