

# Gabriel Koerich | Software Engineer

## Summary

A technical, productivity-focused software engineer and entrepreneur with over 17 years of professional experience building scalable systems (2008-Present). I started programming at age 13 out of pure curiosity about how things work, an early passion that evolved into a career building everything from marketing automation platforms to DeFi protocols.

As founder of Bulldesk (acquired 2021), I developed strong product intuition and business skills that complements my technical skills. My background in Business Administration/Finance (BBA) gives me unique insight when building fintech and DeFi solutions.

I combine deep expertise in both traditional backend development and blockchain engineering (Rust/Solana or EVM/Solidity) to create secure, high-performance applications. Passionate about clean code, rigorous testing, and solving real-world problems.



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## Education

- **BBA Finance** Universidade do Sul de Santa Catarina (2008 - 2012)
- **English Language Studies** LSI (London) (2010)

## Languages

- **Portuguese:** Native
- **English:** Fluent (professional working proficiency)

## Core Competencies

### Blockchain Engineering

- Solana Smart Contracts (Rust, Anchor Framework)
- EVM Smart Contracts (Solidity, Hardhat, Foundry)
- DeFi integrations (CPI calls, modularity, composability)
- Security-first design patterns, low level optimizations, onchain/off-chain processing and indexing & testing (unit, fuzz, prop & integration tests)

## **Full-Stack Development**

- Rust
- Python
- Node.js, TypeScript, NPM, Bun
- Laravel
- Vue.js, React

## **Databases & Infrastructure**

- MySQL (replication, optimization, indexing)
- PostgreSQL, Redis, Beanstalkd, Pub/Sub
- DevOps: Docker, CI/CD, GitHub Actions, Terraform, Ansible
- Cloud: AWS, GCP, Digital Ocean, Fly.io
- Monitoring: Cloudflare, New Relic, Datadog, Sentry, Bugsnag

## **Development Practices/Workflows**

- Code review & mentoring
- Agile methodologies
- System design & architecture
- Coding Agents orchestration - Testing Claude, Codex and OpenCode on my daily workflow.

# **Professional Experience**

**Career Timeline:** 12+ years documented (2013–Present) - 17+ years total including pre-2013 freelance work

## **Senior Software Engineer — Lulo**

### **November 2022 - Present**

Focused on smart contract development for the DeFi protocol. Designed and implemented the protocol that grew to +\$100M TVL/AUM, including a security pool that protects users against protocol hacks while generating yields, and a higher-yield pool with standard DeFi risk exposure.

Key achievements:

- Architected the protocol + CPI integrations with major Solana protocols
- Built comprehensive SDKs and CLIs for protocol interaction
- Implemented rigorous unit testing (Rust) and integration testing (Anchor)
- Developed EVM protocol integrations using Solidity, Forge, and Hardhat

**Stack:** Rust, Solana, Anchor, TypeScript, GitHub Actions, GCP

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## **Solana Smart Contract Engineer / Consultant — Freelance**

### **October 2021 - November 2022**

Developed multiple Solana-based projects including:

- NFT marketplace with custom auction mechanisms
- Price prediction game with on-chain oracle integration
- DeFi smart contract utilizing Orca's Whirlpool for liquidity

All projects featured:

- Comprehensive unit and integration testing
- Modular, composable architecture
- Security-first design patterns
- JavaScript SDKs for client integration
- CLI tools with GitHub Actions automation

**Stack:** Rust, Solana, Anchor, TypeScript, GitHub Actions

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## **Senior Software Engineer — Covie**

**April 2021 - December 2021**

Responsible for building integrations with insurance companies, processing high-volume policy data and claims workflows.

**Stack:** Symfony, Node, PostgreSQL, REST APIs

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## **Founder — Bulldesk**

**September 2015 - May 2021**

Founded and scaled a Marketing Automation and CRM platform — the first Brazilian software to combine Automation + CRM in one platform.

Responsibilities:

- Built core architecture and 90% of application features from initial concept
- Managed infrastructure, DevOps, and cloud architecture
- Handled product development, business administration, and finance
- Successfully exited via acquisition in 2021

Technical highlights:

- Scale: 80M+ user requests monthly, 500M+ background jobs processed monthly
- Infrastructure: Multi-server architecture with load balancers, separate worker servers, and real-time processing
- Queue Systems: Optimized Beanstalkd and Redis queues with Laravel Horizon for monitoring and scaling
- Database: MySQL master-slave replication with read replicas, query optimization, and strategic indexing for high-throughput operations
- Workflows: Complex automation engine processing 1M+ leads through campaigns with 5-10 concurrent actions per lead
- Real-time: Live updates and notifications using Laravel Echo, WebSockets, and Redis pub/sub

**Stack:** Laravel, Node, MySQL, Vue.js, Beanstalkd, Redis, Stripe, AWS

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## **Founder / Full Stack Engineer — Algorit**

**June 2013 - September 2016**

Founded a digital agency and software house serving clients with custom web applications and marketing solutions. I was responsible for all the software development & business administration/finance.

**Stack:** Laravel, Node, JavaScript, Python, MySQL, Vue.js

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## **Freelance Web Developer**

**2008 - 2013**

Self-taught web development during university years. Built websites and web applications for small businesses and local clients while completing BBA degree.

**Stack:** PHP, JavaScript, HTML/CSS, MySQL