

# GUILHERME CARUSO

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## PROFESSIONAL SUMMARY

Staff Software Engineer with 8+ years of experience building scalable platforms across fintech, edtech, and influencer marketing industries. Strong background in system architecture, backend development, cloud infrastructure, and machine learning applications. Proven track record in founding engineering teams, leading product development from ideation to production, and scaling platforms to millions of users and billions in transactions. Experienced in multi-cloud environments (AWS, GCP, Azure) and advanced tooling for infrastructure, observability, and workflow orchestration.

## SKILLS

**Programming Languages:** Go, Python, Rust, JavaScript, TypeScript, Dart, Elixir, C/C++

**Frameworks & Libraries:** NestJS, Node.js, React, Flutter, TensorFlow, Scikit-learn, XGBoost, Pandas, NumPy

**Cloud Platforms:** AWS, GCP, Azure, IBM Bluemix

**Data & Observability:** Kafka, Elasticsearch, Datadog, Grafana, MLflow

**Blockchain Technologies:** Ethereum, Hyperledger

**Testing & Automation:** Selenium, Appium, Puppeteer, Mocha, JUnit, Jest, Supertest

**Authentication:** Keycloak, OAuth 2.0

**Other Tools:** Temporal.io, Incident.io, CI/CD Pipelines, ETL Pipelines, Microservices Architecture

## EMPLOYMENT

**Pilea Labs, Brazil** – *Founding Team & Staff Software Engineer* • February 2024 – Present

- **Technical Leadership:** First engineer hired; leading the full development, architecture design, and key technical decisions of the platform.
- **Automated Payment System:** Designed and implemented a scalable influencer payout system, transacting over BRL 3 million in the first three months of operation.
- **Authentication Platform:** Built the authentication and authorization layers, supporting over 5,000 influencer accounts securely.

- **AI-Powered Analytics:** Designed and developed AI-driven systems to collect, analyze, and interpret influencer performance data, processing an average of 15–20 posts per influencer per month across Instagram (Meta), TikTok, and YouTube.
- **Scalable Architecture & Cloud Infrastructure:** Established the technical foundations to support rapid platform growth using Python, Go, Kubernetes (K8s), Docker, Terraform, and key ML/Data Science tools such as Scikit-learn, Pandas, NumPy, XGBoost, and TensorFlow.

**Will Bank, Brazil** – *Staff Software Engineer • June 2023 – February 2024*

- **PIX Services Development:** Led the implementation of all PIX-related services (instant payments), including Pix Credit, Pix Installments, Pix Withdrawal, and Pix Change, supporting rapid expansion of PIX operations.
- **Backend Engineering:** Built scalable and reliable microservices using Golang and TypeScript (NestJS), deployed via Kubernetes and Docker on AWS.
- **Workflow Orchestration:** Integrated AWS Temporal.io to manage high-frequency, event-driven payment workflows.
- **Incident Management:** Provided operational support for the PIX ecosystem, utilizing Incident.io to ensure system stability and rapid incident resolution.
- **Developer Experience:** Designed and developed internal automation tools to enhance developer productivity and streamline operational workflows.
- **High-Scale Banking Operations:** Supported the scaling of Will Bank's digital payment infrastructure, servicing over 5 million customers and contributing to the processing of billions of BRL annually across PIX and other payment channels.

**Isaac, Brazil** – *Staff Software Engineer (formerly Sr Software Engineer) • April 2021 – July 2023*

- **Technical Leadership and Team Growth:** Led multiple engineering teams through ideation, planning, prototyping, and building new products into fully operational squads, supporting Isaac's scaling to over 1,000 employees.
- **Core System Architecture:** Designed and developed key systems across Core Services, Banking Integrations, FIDC (Credit Rights Investment Fund) Systems, Ledger Management, Messaging Systems, and Internal Package Management Systems.
- **Technology Stack:** Delivered scalable solutions using Go, AWS, GCP, Kubernetes, Kafka, Rust, JavaScript, and Temporal.io.

- **Mentorship and Hiring:** Mentored engineers through a specialized Go course and conducted technical interviews across multiple levels to strengthen team capabilities.
- **Founding Contributions:** Joined as one of the first engineers, directly contributing to the foundation that enabled Isaac to manage over BRL 5 billion annually across 6,000 partner schools, aiming for 10,000 schools in the near term.

#### **Estratégia Educacional, Brazil** – *Senior Software Engineer • April 2020 – April 2021*

- **Full-Stack Product Development:** Contributed to the development of key platforms across multiple domains, including E-commerce, Streaming, Security, Tooling, and Account Management.
- **Cloud Infrastructure & DevOps:** Built scalable, cloud-native applications using AWS services (EKS, ECS, Lambda, S3, SQS, SNS, API Gateway) and Infrastructure as Code (Terraform).
- **Cross-Platform Engineering:** Developed applications in Go, Node.js, and Dart, and built mobile applications using Flutter.
- **Observability & Monitoring:** Implemented monitoring and alerting solutions with Datadog and Grafana to ensure high system reliability and performance.
- **Legacy System Rebuilding:** Led initiatives to re-architect and modernize legacy systems, enabling multiple teams to scale their products and operations more efficiently.
- **EdTech Platform Scaling:** Supported the expansion of Estratégia Educacional, a leading Brazilian edtech serving over 800,000 students across preparatory courses, including medical school entrance exams.

#### **SWAP, Brazil** – *Founding Team & Senior Software Engineer • May 2019 – April 2020*

- **Core Ledger System Development:** Designed and implemented the MVP model for cash management and ledger systems, laying the technical foundation for SWAP's financial operations.
- **Infrastructure and Cloud Architecture:** Built the initial cloud and physical server infrastructure using AWS (Lambda, EC2, S3, RDS), Terraform, Serverless framework, and Ansible.
- **Issuer Platform Implementation:** Led the technical efforts for SWAP to become an official Mastercard issuer, configuring critical services and server environments from scratch.
- **Data Engineering:** Developed ETL pipelines for document processing, ensuring secure and reliable data ingestion workflows.
- **System Resilience and Tooling:** Implemented resilience mechanisms and created internal tools to support operational stability during rapid company growth.

- **Technology Stack:** Delivered solutions using Elixir and Golang, alongside authentication systems with Keycloak.
- **High-Scale Operations:** Contributed to the early success of SWAP, enabling the platform to process over BRL 100 million in transactions and to build the technical foundation that later supported over BRL 10 billion in annual payment volume.

#### **QuintoAndar, Brazil** – *Software Engineer • November 2018 – May 2019*

- **QuintoAndar Originals Development:** Worked on the QuintoAndar Originals project, contributing to the launch of the renovated property listings platform.
- **Frontend Optimization:** Improved the performance of listing pages by reducing React component re-renders and minimizing app bundle sizes, enhancing load speed and user experience.
- **A/B Testing and Experimentation:** Designed and implemented A/B tests across the home, search, and listing pages to optimize user engagement and conversion rates.
- **Accessibility Improvements:** Enhanced accessibility features on the listing pages, improving compliance with web accessibility standards (WCAG).
- **Technical Mentorship:** Supported junior developers through technical discussions, tech talks, and code reviews, fostering team knowledge sharing and collaboration.
- **Technology Stack:** Delivered features using Java, Node.js, and React in a microservices and modern frontend environment.
- **High-Scale Operations:** Contributed to a platform that, in 2019, scheduled over 2 million property visits and facilitated approximately 4,500 rental contracts per month, reflecting significant user engagement and transaction volume.

#### **Owl Docs, Brazil** – *Founding Team & Software Engineer • July 2017 – December 2018*

- **Data Security and Storage Development:** Built secure systems for data storage and information protection across cloud and blockchain environments.
- **Multi-Cloud Infrastructure Engineering:** Designed and deployed infrastructure across AWS (EC2, S3, Route53, CloudFront, RDS), GCP (Kubernetes, BigQuery), Azure (Windows Server, Chatbot with LUIS), and IBM Bluemix (Elasticsearch, Hyperledger, Watson).
- **Blockchain Applications:** Developed blockchain-based solutions using Ethereum and Hyperledger frameworks to ensure transaction transparency and data immutability.

- **Backend Development:** Delivered APIs and backend services using Node.js, Golang, and C# for high-reliability applications.
- **Founding Contributions:** Joined as part of the founding team, playing a key role in designing the core technical foundation of the company.

**Blu365, Brazil** – *Software Engineer (formerly QA Analyst) • August 2016 – July 2017*

- **Quality Engineering and Automation:** Developed automated test scripts for integration, API, white-box, black-box, and mobile testing scenarios.
- **Continuous Delivery and Testing Pipelines:** Supported continuous integration and delivery (CI/CD) processes by creating robust automated test suites across multiple platforms.
- **Test Case Design and Execution:** Created and executed comprehensive test cases to validate functionality, reliability, and performance of new software developments.
- **Technical Code Validation:** Validated and provided support for backend and frontend codebases in Java, JavaScript, and Python environments.
- **Automation Tools:** Utilized tools including Jest, Puppeteer, Selenium, Supertest, JUnit, Mocha, and Appium for efficient test automation and mobile testing.
- **Technical Requirements Analysis:** Collaborated with engineering teams to analyze technical requirements and define validation strategies for new features.
- **Career Progression:** Promoted from Quality Assurance Analyst to Software Engineer in recognition of technical contributions and expanded responsibilities.