

Thiago Figueiredo Costa

STAFF SOFTWARE ENGINEER · TECH LEAD

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Summary

I build backend systems and I care about how fast they run. I have been programming for 17 years, from LEGO Mindstorms robots to Google Search. Staff Software Engineer and Tech Lead of the Accounts squad at ng.cash, a Brazilian digital bank: authentication, onboarding/KYC, devices and PIN across 8 services. Before that, Python data analysis drove C++ performance work in Google Search, and at bwtech I went from intern to tech lead in 13 months on a Kafka platform processing over 4 TB a day. Outside work I run nanotech, a small software studio. Published researcher in machine learning and security (9 papers, Honorable Mention at BRACIS 2022), with a double degree from CEFET-MG and Université Grenoble Alpes.

Experience

ng.cash

Belo Horizonte (Remote), Brazil

STAFF SOFTWARE ENGINEER - TECH LEAD

Apr. 2026 - Current

- Technical direction for the Accounts squad: authentication, onboarding/KYC, devices and PIN (8 services)
- Led the squad's turnaround in delivery and quality, from one of the weakest teams in engineering to the strongest
- Set the squad's code review and quality standards, enforced through an AI-assisted review workflow
- Designed and led end-to-end tracing of login and signup across the app, API gateway and 5 services. Owned the squad's observability strategy
- Incident response and on-call: triage, post-mortems and a runbook-backed base of past incidents
- Built the squad's deploy tooling: dependency-ordered promotions across 12 repositories
- TypeScript, NestJS, Python (tooling), AWS (ECS, Lambda, SQS, SNS, EventBridge, DynamoDB, CDK), Datadog and PostHog

nanotech software

Belo Horizonte, Brazil

FOUNDER & SOFTWARE ENGINEER

Jun. 2024 - Current

- Run a small software studio on one shared Python platform, nt-stack, reused across 30+ Python projects
- Built nt mail, nt wall and nt wallet; nt-webship build gate; 20,000+ automated tests

bwtech

Belo Horizonte, Brazil

STAFF CONSULTING ENGINEER

Sep. 2025 - Dec. 2025

- Deployed and managed an on-premise Kubernetes cluster with a stack for a Data Lakehouse handling massive sensitive data ingestion and ETL
- Deployed and tuned Apache Spark, Apache Iceberg, MinIO, Rancher, Prometheus, Grafana, IOMETE and DNS/NTP servers

Cadoma

Belo Horizonte (Remote), Brazil

CTO

Oct. 2024 - Sep. 2025

- Led a new system to replace the company's legacy code, keeping the legacy system supported during the move
- Embedded systems in C++
- Python and PostgreSQL backend, JavaScript and Tailwind frontend
- Software and technology consulting

Nexos

Belo Horizonte, Brazil

SR. DEVELOPER PARTNER

May 2024 - Sep. 2024

- Java Development and consultancy for the development of a Twitter-like social network for the Inter Bank

Google

Belo Horizonte, Brazil

SOFTWARE ENGINEER

Mar. 2022 - May 2024

- Optimizing the search engine C++ code based on data analysis done with Python
- Management, unification and development of search engine log processing pipelines
- Research and analysis of LLM performance optimizations in search engines

Syngenta Digital Brasil

Belo Horizonte (Remote), Brazil

FULL STACK ENGINEER

Nov. 2021 - Mar. 2022

- Python Development of an API to provide NDVI satellite images
- Serverless Framework to deploy Python code on AWS, and monitoring with Datadog
- Working with AWS Cloud Services such as Lambda, DynamoDB, X-Ray, Parameter Store, EC2, SQS and SNS
- Working with an international team located in the USA

bwtech

Belo Horizonte (Remote), Brazil

DEVELOPMENT INTERN TO TECH LEAD

May 2020 - Nov. 2021

- Promoted four times in 13 months, from intern to tech lead
- Built distributed Java/Kafka/MinIO processing for 4+ TB/day and ran IT operations for its 80-node on-prem cluster; Python/Bash scheduling on Airflow

Academic

Universidade Federal de Minas Gerais (UFMG)

Belo Horizonte, Brazil

MASTER'S DEGREE IN COMPUTER SCIENCE - FOCUSED IN COMPUTATIONAL NEUROSCIENCE

Aug. 2022 - Paused

- Prediction of epileptic seizures through the use of AI techniques to electroencephalogram (EEG) signals

Institut Universitaire de Technologie (IUT1) - Université Grenoble Alpes

Saint-Martin-D'Hères, France

BACHELOR'S+3 IN COMPUTER NETWORKS AND TELECOMMUNICATIONS WITH HONORS

Sep. 2019 - Aug. 2020

- Best of the class in all scientific and technological subjects, second place on final project and internship

Centro Federal de Educação Tecnológica de Minas Gerais (CEFET-MG)

Belo Horizonte, Brazil

BACHELOR'S+5 IN COMPUTER ENGINEERING

Mar. 2016 - May 2021

- Awarded for excellence with a full scholarship to study at Université Grenoble Alpes
- Co-founder and President of Commit Jr, the Computer Engineering junior enterprise of CEFET-MG
- One of two students in the class to graduate without failing a subject, and the only one to skip ahead a semester
- Final Project: Using Genetically Tuned Smart Neural Network to Prioritize Software Vulnerabilities Patching

Skills

Programming languages - Advanced	Python, C++, TypeScript, Java, Shell Script
Programming languages - Intermediate	Kotlin, C, C#, Scala, JavaScript, Swift
Backend	NestJS, Node.js, FastAPI, Flask, SQLAlchemy, Spring Boot
AWS	ECS, SQS, SNS, EventBridge, API Gateway, DynamoDB, CDK
Data & Distributed Systems	Kafka, Spark, Iceberg, Kubernetes, Docker Swarm, MinIO, Airflow
Observability	Datadog, Prometheus, Grafana, PostHog
Databases	PostgreSQL, DynamoDB, MySQL, MongoDB, Redis, Greenplum
Languages	English (IELTS Academic 7.5; TOEFL ITP 587; EF SET C2, efset.org/cert/iCLpYq), Português nativo, Français débutant, Español principiante

Papers

- **Challenges on Prioritizing Software Patching**
IEEE SIN 2022 · first author · DOI [10.1109/SIN56466.2022.9970537](https://doi.org/10.1109/SIN56466.2022.9970537)
 - **Exploitability Assessment with Genetically Tuned Interconnected Neural Networks**
BRACIS 2022 · first author · Honorable Mention, Best Papers · DOI [10.1007/978-3-031-21686-2_41](https://doi.org/10.1007/978-3-031-21686-2_41)
 - **A Methodology for Definition and Refinement of a LSTM Stock Predictor Architecture using iRace and NSGA-II**
BWAIF 2022 (CSBC) · first author · DOI [10.5753/bwaif.2022.222869](https://doi.org/10.5753/bwaif.2022.222869)
- Six more papers (SBGames, OL2A, Encoinfo); 22 citations, h-index 3 (Google Scholar, Sep. 2026).