Mateus Pereira da Silva

Senior Software & Data Engineer

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Professional Summary

Software & Data Engineer focused on high-performance backend systems and large-scale data pipelines.

I deliver reliable, measurable, and production-ready solutions for complex operational environments.

Strong in architecture, code quality, and translating business constraints into scalable systems. Pragmatic, fast to execute, and fully outcome-driven.

Professional Experience

Software & Data Engineer — VE3

Aug 2022 – Present | Supply Chain & Data Intelligence

- Designed daily/weekly **DRP/MRP analytics** using Python + Polars, supporting a multi-billion-revenue client.
- Refactored the **Forecasting Engine** (Python + Spark), improving reliability and simplifying workflows for 25+ models.
- Developed the **Sell-Out MPS microservice** (Go + Python + React).
- Re-engineered pricing hierarchy logic, reducing cloud footprint by up to **10%**.
- Integrated **Embedded BI** for in-platform analytics.
- Optimized SQL and ERD structures, achieving **75% faster dashboards** and **50× lower query load**.
- Built monitoring stack with Prometheus, Grafana, and Bash.

Web Developer — Self Employed

Feb 2021 – Aug 2022 | Remote

- Built responsive websites and landing pages (HTML, CSS, JavaScript, PHP).
- Translated business requirements into clean, intuitive interfaces.
- Developed Python automations to streamline client workflows.

Selected Project

Bitcoin Price Forecasting (2025)

Repo: https://github.com/tzpereira/bitcoin-price-forecasting

End-to-end ML pipeline for daily Bitcoin predictions using Polars, XGBoost, SARIMAX, and FastAPI.
Automated ingestion, feature engineering, rolling forecasts, Streamlit dashboard, and Parquet-based persistence.
Containerized with Docker Compose (backend + frontend).

Technical Skills

Languages

Python, Go, JavaScript, TypeScript, Node.js, PHP

Backend & Systems

Microservices, REST APIs, distributed systems, Kafka, event-driven architecture, async processing

Data & Machine Learning

Polars, Spark, Pandas, time series forecasting, scikit-learn, feature engineering

Databases

PostgreSQL, MySQL, Parquet, S3

DevOps & Cloud

Docker, Linux, AWS (EC2, S3), NGINX, CI/CD, Prometheus, Grafana, Bash

Tooling

Git, Postman, Swagger, Webpack, Composer

Methodologies

Agile, Scrum

Education

B.Sc. in Computer Science — Estácio de Sá University

Languages

Portuguese (Native) • English (Fluent) • Spanish (Beginner)