

# Arthur Torres

AI ENGINEER

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## SUMMARY

Production LLM agents and Python automation, turning operational problems into shipped systems. At Banco Inter's Global Operations team, delivered **nine automations saving 1.4 FTE in 7 months**. Also ships end-to-end ML pipelines, from 37M-record telemetry modeling to LLM document intelligence.

## EXPERIENCE

**Banco Inter** Jan 2026 to Present

Data & Automation Intern · Global Operations · Belo Horizonte · On-site

- LLM Agents:** contextual analysis supporting governance and approval workflows for the US operations team
- Onboarding Decision Engine:** evaluates onboarding payloads and returns structured decisions to analysts via API, eliminating manual review (*0.4 FTE saved*)
- Account Alert Automation:** end-to-end email pipeline for accounts requiring financial attention, triggered with zero manual intervention (*0.3 FTE saved*)
- Three more tools: LLM document analysis agent, address validation pipeline (FastAPI + web scraping), transaction integrity validator. Saving 0.3 FTE combined, all deployed as microservices on Kubernetes

Python · SQL · FastAPI · Selenium · Pandas · LLM Agents · Groq API · Docker · Kubernetes · GitLab CI/CD

**Akyou Soluções** Apr to Dec 2025

Backend Engineer · AI & Accessibility · Remote

- Built the Python + OpenAI backend and LLM pipelines restructuring unstructured PDFs into accessible output
- Took the product from scratch to a working prototype, owning it end to end: TypeScript frontend built from the ground up, backend deployed on AWS Elastic Beanstalk behind a load balancer

Python · TypeScript · OpenAI API · LLM Pipelines · AWS Elastic Beanstalk

## PROJECTS

**Financial Intelligence Dashboard** [github.com/tutorres](https://github.com/tutorres) · [Live demo](#)

Python · DuckDB · PyTorch · Groq API · Streamlit · Pandas · Plotly

Medallion pipeline (bronze/silver/gold), LSTM trend classification, Text-to-SQL LLM interface, market chat.

**Vale Desenvolver 2026 · Mining Fleet Telemetry** [github.com/tutorres](https://github.com/tutorres) · [Case study](#)

Python · XGBoost · LightGBM · SHAP · DuckDB · pytest

Predictive pipeline over 37.1M telemetry records from Vale S.A.'s Itabira mine, anticipating critical "Don't Go" failures: F1 0.186 at 4h vs 0.038 for the best heuristic (4.9x). Temporal validation, SHAP, 93 tests (TDD).

## SKILLS

AI / ML LLM Agents · OpenAI / Groq API · PyTorch · LSTM · XGBoost / LightGBM · SHAP

CORE Python (advanced) · SQL (advanced) · FastAPI · Selenium · pytest · Git

DATA DuckDB · Pandas · Plotly · Streamlit · OpenPyXL

INFRA Docker · Kubernetes · GitLab CI/CD · AWS

PRACTICES TDD · Spec-Driven Development · Agentic coding workflows

## EDUCATION

**CEFET-MG · B.Eng. Computer Engineering** 2024 to 2030 (est.) · 5th semester

## CERTIFICATIONS & LANGUAGES

EF SET English Certificate · C1 Advanced 65/100 · C2 Listening May 2026

Lean Six Sigma Yellow Belt Thoth / CSSC 2026

Native Portuguese speaker · English in daily professional use at Banco Inter