

Gabriel Bromonschenkel

gabriel.mota.b.lima@gmail.com | +55 27 99600-1277 | linkedin.com/in/gabriel-mota-b-lima | github.com/gabrielmotablma

Professional Experience

• Banco do Brasil (via Stefanini)

Data Scientist

Brasília, Brazil

Apr 2023 – Present

- Developed a people analytics clustering model for talent discovery; identified 300+ high-potential employees for IT roles, enabling the department to double its available positions.
- Engineered an end-to-end OCR pipeline for fraud detection using Tesseract and NLP similarity scoring, increasing audit coverage by 15% and preventing millions in potential fines.
- Architected a recommendation system for the investment news platform, using Spark ML (ALS); migrated from SVD-based models to handle large-scale enterprise data volume.
- Applied causal inference and multi-armed bandits for debt renegotiation experiments, optimizing discount levels to increase final capital recovery.

• Tok&Stok

Data Scientist

São Paulo, Brazil

Jun 2022 – Mar 2023

- Improved a Slack bot for anomaly detection and Power BI automation, reducing business complaints by 30% and lowering software costs by centralizing premium license usage.
- Integrated CI/CD for BI via GitHub Actions, enabling versioning and automated rollbacks for 75% of company reports.
- Managed data marts in Azure Analysis Services, ensuring >90% data integrity during a complex business transition through custom DBT and SQL adaptations.

Research Experience

• Imaging, Vision and AI Laboratory (LIVIA)

Visiting Researcher

Montreal, Canada

Sep 2025 – Oct 2025

- Researched Vision-Language Models (VLMs) for image captioning at the École de Technologie Supérieure (ÉTS), Université du Québec; conducted comparative evaluations of Transformer-based models; investigated the efficacy of unimodal and multimodal metrics.
- Optimized 7B+ parameter models for GPU memory using LoRA, QLoRA, and 4-bit Quantization.

• Computational Intelligence Laboratory (LAICSI)

AI Research Assistant

Serra, Brazil

Sep 2023 – Dec 2025

- Conducted research on multimodal Transformers for image captioning in Portuguese at the Federal Institute of Espírito Santo (IFES), Campus Serra.
- Lead researcher on multimodal models for Brazilian Portuguese; pioneered studies on translation effects over Vision Encoder-Decoder (VED) models and Large VLMs like Llama and Phi-3 for Vision.

• University of Sao Paulo (USP)

AI Research Assistant

São Paulo, Brazil

Jul 2020 – Dec 2021

- Researched hybrid methods applying Machine Learning and Ontologies for psychiatric clinical analysis, using Scikit-Learn and Unified Foundation Ontology (UFO).

• Federal University of Espírito Santo (UFES)

AI Research Assistant

São Mateus, Brazil

Aug 2019 – Aug 2021

- Applied convolutional autoencoders for smart grid load identification using Tensorflow, MongoDB, and Databricks.
- Investigated the junction of convolutional neural networks and extreme learning machines for face recognition using Keras.

Education

• Federal Institute of Espírito Santo (IFES)

M.Sc. in Computer Science (Applied Computing)

Serra, Brazil

2023 – 2025

• Federal University of Espírito Santo (UFES)

B.Sc. in Computer Engineering

São Mateus, Brazil

2017 – 2022

Technical Skills

ML & AI: VLM, LLM, NLP, CV, Transformers (ViT, Swin, BERT, GPT).

Big Data: PySpark, Hadoop, Hive, Hue, Spark MLlib, Databricks, Snowflake, DBT.

Tools: AWS, Azure, Python, SQL, Terraform, Docker, Kubernetes, GitHub Actions.