BERNARDO BACHA DE RESENDE
DATA SCIENTIST | AI CONSULTANT

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SUMMARY

Brazilian Mechanical Engineer turned Data Scientist with experience in AI consulting, predictive maintenance, and financial data projects. Committed to leveraging data for strategic decision-making and process improvement.

PROFESSIONAL EXPERIENCE

Falconi Consultoria – Data Scientist; Belo Horizonte (Brazil)   *December 2021 - Today*

- Financial portfolio recommendation and optimization for investment brokerage
  - Developed a model for asset group recommendations and portfolio optimization using real financial data, tailoring client portfolios to economic scenarios, leading to sharpe ratio improvements in 75% of portfolios over three months and a CAGR increase of 2.2%
  - Implemented clustering models to redefine client categorization, enabling more appropriate service for each group
  - Built solution deployment pipelines with Kedro for implementation in the client's infrastructure.
- Predictive maintenance in industrial manufacturing production line for multinational food company
  - Developed a predictive maintenance model capable of forecasting 88% of failures within a 5-minute window of occurrence
  - Implemented explainability in predictive maintenance models, coupled with the design and deployment of a dashboard for operators to monitor real-time the most influential parameters for production line failures
- Maintenance Inventory Optimization for Multinational Construction Material Company
  - Development of data preprocessing pipeline for maintenance inventory optimization model and Streamlit user interface, showing a projected $13.4 million savings
- Store clustering and demand forecasting for multinational retail chains
  - Development of clustering model designed for enhancing demand forecasting accuracy in the retail sector
- Influential factors analysis in profit margin for fuel distributor via explicability model
  - Implementing predictive models and explainability methods to explore and understand the critical determinants influencing profit margins.

One Big Media Group – Data Analysis Intern; Belo Horizonte (Brazil)   *July 2021 – February 2022*
Digital media startup focused on online content distribution

- Automated Data Reporting and Analysis with Python
  - Development of automated reporting routines for YouTube channel data analytics, establishing a data division within the company and generating insights for creators and analysts to optimize production efforts.

Belgo Bekaert – Industrial Engineering Intern; Vespasiano (Brazil)   *November 2020 – June 2021*

- Power Apps Solutions for Enhancing Production Processes
  - Crafting Power Apps solutions to streamline steel cord production, featuring comprehensive dashboards for data insights.

EDUCATION

Universidade Federal de Minas Gerais, UFMG | Bachelor of Science in Mechanical Engineering (BSME)| Belo Horizonte, Brazil   *July 2022*

- Capstone Project: Machine Learning Applied to Predictive Maintenance of Turbofan Aircraft Engines
- 2 years in SAE Aerodesign competition team

SKILLS & INTERESTS

Languages: Fluent English and Native Portuguese
Technical: Python, Machine Learning, SQL, Git and GitHub, MLOps