# Henrique Laureano

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Senior Financial Data Scientist | Statistician | MSc in Statistics and Numerical Methods in Engineering

## Experience

***Senior Data Scientist****, Banco Bradesco* – Curitiba-PR, Brazil [Mar, 2025 - Present]

Independent Model Validation and Monitoring team (AVIM, in Portuguese), working with the massified credit risk portfolio.

***Senior Data Scientist****, Volvo Trucks Latin America* – Curitiba-PR, Brazil [Oct, 2022 - Feb, 2025]

BI & Advanced Analytics CoE under Business Control area.

* Short and long-term total market forecast (volume TMF) for Chile and Peru markets:
  + Enhanced accuracy by more than 10%, reducing errors to under 3%.
* Six-digit cost reductions in monthly corrective expenses of service contracts using telemetry data modeling.
* Price optimization of gold service contracts, resulting in a 5% increase in sales and a 10% churn reduction.
* Selling and administrative (S&A) expenses annual forecast for LATAM HQ:
  + Achieved a 9% cost reduction, totaling seven digits.

***Senior Statistician****, Pelé Pequeno Príncipe Research Institute* – Curitiba-PR, Brazil [May, 2021 – Sep, 2022]

The research facility of the Pequeno Príncipe Hospital, the largest exclusively pediatric hospital in LATAM.

* Authored six international scientific publications.
* Led data visualization, sampling design, statistical and predictive modeling for complex, infectious, and oncogenetic diseases, as well as for epidemiological and clinical studies, and bioinformatics.

***Statistical Consultant****, Freelance* [Jan, 2017 – Apr, 2021]

Provided statistical consultancy to researchers across a diverse range of fields including Agronomy, Biology, Economics, Electrical and Chemical Eng., Pharmacy, Education, Psychology, Chemistry, Medicine, and Zootechnics.

***Statistician****, Telehealth Center – Hospital das Clínicas (UFMG)* – Belo Horizonte-MG, Brazil [Jul, 2016 – Dec, 2016]

Research group on echocardiography in tropical diseases, developing predictive and statistical models to identify and quantify risk factors for Chagas and rheumatic diseases. Study design, data analysis and visualization.

* Led the transition of data analysis platforms from SPSS to R, incorporating advanced techniques such as multivariate failure time models.

Transitioned to pursue a Master's in Statistics at UNICAMP, focusing on advanced stats methodologies.

## Education

***Masters in Statistics and Numerical Methods in Engineering****, Universidade Federal do Paraná (UFPR)* [2021]

*Interrupted* ***PhD in Applied Mathematics and Computational Sciences (AMCS)****, King Abdullah University of Science and Technology (KAUST)* [2019]

*Interrupted* ***Masters in Statistics****, Universidade Estadual de Campinas (UNICAMP)* [2017]

***Bachelor in Statistics****, Universidade Federal do Paraná (UFPR)* [2016]

## Programming Languages

* Advanced proficiency in **Python** and **R** for data manipulation, visualization, data analysis, modeling, and web scraping (e.g., using Selenium).
* Advanced proficiency in **SQL** and **Spark** (PySpark), including experience with Hadoop servers for data querying and manipulation.
* Previously proficient in **C++** - models developed during my Master’s and PhD studies were written in C++ for computational efficiency.
* Experienced with SAS, Julia, MATLAB, and SPSS.

## Modeling Frameworks

* In Python, experienced with PyTorch, JAX, TensorFlow, Keras, and MLflow.
* In R, proficient in INLA, Stan, RTorch, TMB, JAGS, and WinBUGS.

## Business Intelligence

* Advanced proficiency in **Power BI** and its underlying languages, DAX and Power Query.
* Proficient in Shiny (R) and Streamlit (Python).

## Cloud (Azure)

* Advanced proficiency in Databricks (including MLflow and Docker) and experience with Data Factory, and OpenAI Studio.

## Reproducibility

* Advanced proficiency in Git and its platforms: GitHub, Bitbucket, and Gitlab.