







FERNANDA ROMAN DE OLIVEIRA

RESEARCHER & DATA SCIENTIST

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LANGUAGES

English Proficient (C2)
Dutch Intermediate (B1)
Portuguese Native

SKILLS

Coding

Python, C++, R, SQL, HTML

Data Science

ETL, EDA, Numpy, Scipy,
Pandas, pySpark, HPC,
Bayesian Statistics

Data Visualisation

Matplotlib, seaborn, ggplot

Machine Learning

Scikit-learn, PCA, GMM,
Regression and Classification

Editors

Jupyterlab, Rstudio, VS Code

Tools

Git, Microsoft Office Package,
LaTeX, Agile, UNIX/shell

EDUCATION

BSc. and MSc. in Physics

Universidade Federal do Rio Grande do Sul
2014-2019

Completed courses in Mathematics, Physics, Statistics and Coding, including Linear Algebra and advanced Calculus.

ABOUT ME

I am finishing my Ph.D. in Astrophysics working with large volumes of structured and unstructured data. I am a curious and persistent scientist who is passionate about data and analytics. Over the years, I acquired a strong background in data-driven problem solving involving mathematical modelling and statistics. I led and delivered many projects that brought insights to the academic community into the evolution of galaxies. Now I am looking forward to bring my expertise down to Earth and help with real world problems.

EXPERIENCE

PhD Researcher in Astrophysics

University of Groningen

2020 - current

Technical skills

- Extracted and cleaned large volumes of data from databases.
- Applied statistical tools, including Bayesian modelling, regression and Monte Carlo to model data.
- Mastered end-to-end data-driven projects by determining a problem, gathering necessary data, analysing and interpreting the results.
- Delivered open-source object-oriented programs in Python that efficiently address complex challenges in astrophysics.
- Led 3 research projects that resulted in 3 peer-reviewed articles in high-impact journals

Leadership and communication

- Effectively communicated complex results and insights to non-specialists through clear visualizations and written reports.
- Mentored 2 BSc.students as co-supervisor on their final projects.
- Organised and chaired collaboration meetings, fostering teamwork.

Research Assistant

Universidade Federal do Rio Grande do Sul

2015-2019

- Conducted exploratory data analysis on a structured dataset (>2000 objects with >60 parameters).
- Used statistical methods such as gaussian mixture model, regression analysis and linear dimensionality reduction.
- Effectively led and completed two projects and initiated a team-work effort among three different institutes on a third project.
- Delivered the outcome of these projects through the publication of two peer-reviewed articles in journals and presented my work to diverse audiences.