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Enzo Laragnoit Fernandes

Computer Science | Machine Learning | Data Science

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Experience

Junior Data Scientist **Jan 2022 — Mar 2024**
Big Data Assessoria Empresarial S/A São Paulo

Started as Intern Data Scientist (Jan/2022 – Oct/2022), I worked on a client-specific recommendation system project as well as the Forecast and Product Operations divisions.

- Contributed to the development of a recommendation system for a market-leading company in the civil construction sector.
- Idealized and implemented a quality assurance framework to automate deliverable validation processes.
- Contributed to codebases with implementation, reviews, maintenance, refactoring and testing.
- Conducted and presented data analyses regarding both client data and the deliverables.
- Developed a price-elasticity modeling approach using Panel Data Regression and Supervised Machine Learning in order to optimize production models.
- Orchestrated ETL and Machine Learning pipelines with Apache Airflow.

Tools: *Python3, Pandas, Scikit-Learn, Numpy, Matplotlib, Git, Apache Airflow, Docker, AWS (S3, EC2), PostgreSQL, Jupyter Notebook*

Researcher in Applied Machine Learning **Sep 2020 — Sep 2021**
São Paulo Research Foundation (FAPESP) Sorocaba

Granted funding for the scientific project proposal (grant #2020/09607-9) in the project "Solar Radiation Forecasting using Machine Learning" for the period of 12 months.

- Conducted and showcased a systematic literature review.
- Elaborated scientific reports regarding the progress of the research, methodology and the results obtained.

Link: `https://bv.fapesp.br/56754`

Projects

Solar Radiation Forecasting using Machine Learning **Sep 2020 — Sep 2021**
Project regarding use of Machine Learning techniques to obtain models capable of forecasting hourly solar radiation from historical meteorological data 60 minutes in the future. The data were collected by the National Institute of Meteorology of Brazil in several data-collecting stations in the State of São Paulo, Southeastern Brazil. The results obtained were compared to a spatial interpolation technique and a solar radiation empirical model in order to assess the effectiveness of the proposed methods.

- Built a complete data pipeline to pre-process all information from automated download routines to site-specific data normalization.
- Implemented data imputation with Inverse Distance Weighting-based interpolation to artificially reconstruct missing training values.
- Implemented automated train/evaluation routines and model selection procedures.
- Configured the laboratory infrastructure to use the Dask distributed processing framework.

Link: `github.com/lfenzo/ml-solar-sao-paulo` **Tools:** *Python3, Pandas, Scikit-Learn, Numpy, Optuna, Matplotlib*

Impostor.jl – A Highly Versatile Synthetic Data Generator **May 2023 — Present**
Impostor is a Julia package ("library") which eases the generation of synthetic tabular data using a flexible yet concise API. Built from scratch upon Julia's *Multiple Dispatch* paradigm with simplicity in mind, Impostor is the concretization of a software engineering project from its data back-end and API design; to its packaging, registration and distribution via the Julia General Registry.

Link: `github.com/lfenzo/Impostor.jl` **Tools:** *Julia, DataFrames.jl, Documenter.jl*

Education

Computer Science Bachelor's, Federal University of São Carlos (UFSCar), GPA: 8.93/10.00 **Mar 2018 — Oct 2022**

Skills

Programming: Python3, Julia, C/C++

Cloud: Amazon Web Services (S3, EC2)

Others: Latex, Markdown, Obsidian

Tools: Matplotlib, Pandas, Numpy, Scikit-Learn, Docker, Apache Airflow, Jupyter, Optuna, Git, Makie

Languages: Portuguese (Native), English (Fluent), French (Basic), German (Basic)

Awards & Honors

2016 Bronze Medal in the 16th Brazilian Olympics of Astronomy and Astronautics.
2015 Test of English for International Communication (TOEIC) score 915/990.