## Alisson M. A. Silva

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#### Education

## University of Brasilia (UnB), Brazil

2017-21

Bachelor in Physics

## IFT-Unesp, Brazil

2022-24

Master of Science (Physics)

## Grants and Awards

## Scientific Initiation Scholarship Program (PIBIC)

2019-20

University of Brasilia Foundation (FUB)

# Scientific Initiation Scholarship Program (PIBIC)

2020-21

National Council for Scientific and Technological Development (CNPq)

## Data Analysis Projects

## Weather Forecast

- Developed a weather forecasting model using Facebook Prophet.
- Analyzed historical weather data from New York City and São Paulo to predict future weather patterns and trends.

#### **Solar Energy Optimization**

- Conducted data preprocessing, analysis, and visualization to explore the relationship between precipitation and solar power generation.
- Developed a predictive model using Linear Regression with Scikit-learn to forecast solar power generation based on weather data.
- Applied the model to real-world data from INMET weather station to optimize solar power generation under various weather conditions.

## Walmart Sales Forecast

- Employed ARIMA and Facebook Prophet to forecast Walmart's sales.
- Analyzed historical sales data obtained from kaggle using Pandas and Matplotlib to identify future sales trends in order to aid in strategic planning and decision-making.

### Letterboxd Sentiment Analysis

- Conducted sentiment analysis on Letterboxd movie reviews to compare audience responses towards different movie directors.
- Utilized Pandas, NLTK, Matplotlib, and BeautifulSoup for data processing, sentiment analysis, and visualization.

# $\begin{array}{c} \text{Web} \\ \text{Development} \\ \text{Projects} \end{array}$

## Weather Report

- Developed a Vue.js application that provides real-time weather information using WeatherAPI. Users can search for current weather details by entering a city name. Available on this link.
- Deployed the application on Heroku, offering an intuitive and user-friendly interface for accessing weather updates.

#### Solid View

- Created an interactive solid visualizer using three.js for functionality and Blender 2.93 for model creation. The application features interactive models of Platonic, Archimedean, and Catalan solids, accessible through an image map on the main page.
- Deployed the website on Heroku, providing an engaging and educational experience in exploring geometric solids. Available on this link.

### Language Skills

Portuguese: Native

**English:** Fluent (Cambridge CPE certificate)

German: Intermediate (Goethe B2 certificate)

**Hebrew:** Beginner

## Technical Skills

Python Programming

R Programming

Linux Operating System

Full Stack Development

Data Analysis and Visualization

Machine Learning Algorithms

#### Certifications

Python for Data Science, AI and Development (IBM)	2024
Google Data Analytics Professional (Google)	2021
R Programming (John Hopkins University)	2021
Cambridge English: Proficiency (CPE) (Cambridge)	2021
Goethe Zertifikat B2 (Goethe-Institut)	2021

More information available on my LinkedIn profile.

<sup>\*</sup>Online portfolio at: github.com/itsalissonsilva