ATHOS MEKANNA MORAES

As a Data Scientist with a background in Physics, I've been applying data analysis and machine learning across various sectors including retail, supply chain, and healthcare. My professional journey includes consultancy and self-employment, leveraging diverse Data Science skills from Deep Learning to Data Engineering, and implementing APIs and user interfaces. Currently as a Master's student in Bioinformatics, I'm gaining practical experience in computer vision, honing my understanding of data science's practical applications in healthcare.

CONTACT

athos.m.moraes@gmail.com
+351 928060194
Porto - Portugal
Athos Moraes

TECHNICAL SKILLS

Data Science

Python
PySpark
SQL
Data Processing
(Pandas, Numpy, Spark DF...)
Machine Learning
(Spark ML, SkLearn, ...)
Deep Learning
(TensorFlow, Keras, PyTorch)
Statistics
(Numpy, Scipy, ...)

Operating System/Data Storage

Linux
AWS
(EC2, S3, Athena, SageMaker)
GIT
(GitHub, Bitbucket, ...)

User Experience

Python
(Dash, Streamlit, Plotly, Matplotlib, ...)
Front-End
(Django, Angular, React, Javascript, ...)
Back-End
(Flask, FastAPI, Django)

Languages

Portuguese
English (C1)

EDUCATION

2021 - 2024
University of Porto - UP
Master's degree, Bioinformatics

2013 - 2017
University of São Paulo - USP
Bachelor's degree, Physics

WORK EXPERIENCE

12/2020 - 01/2024
Yhub, São Paulo
Data Scientist
In my current role as a Data Science Consultant and Developer, I specialize in creating data-driven solutions using Python and PySpark for a diverse range of challenges within the retail industry. My work encompasses Natural Language Processing, classification algorithms, product similarity determination through vectorization and clustering, data normalization, and demand forecasting. I also focus on implementing big data handling solutions, deep learning techniques for product attribute recognition, and automating report generation. Throughout this position, I have gained extensive experience working with large-scale datasets and using AWS tools to optimize data processing and analysis.

03/2019 - 11/2020
CTI Global, São Paulo
Data Scientist
As a Data Science Consultant, I collaborated with prominent clients to address complex challenges within the Supply Chain domain. During this role, I was responsible for creating demand prediction algorithms, determining optimal safety stock levels, and applying discrete event simulation alongside machine learning techniques to create comprehensive supply chain models. This experience not only allowed me to enhance my data science expertise but also develop skills in data engineering, good coding practices, deployment pipeline, and maintenance of solutions.

10/2018 - 01/2019
WeMind, São Paulo
Front-end developer
As a Web Developer with a primary focus on front-end development, I contributed to the creation of secure and robust web environments for diverse clients. My work centered around integrating data science solutions into these web applications, often in the form of interactive dashboards, allowing clients to better understand and utilize the data-driven insights.

01/2018 - 08/2018
E/OU MRM, São Paulo
Data Scientist
As a Data Scientist and Business Intelligence Analyst, I focused on key business objectives such as reducing customer churn and optimizing customer segmentation. By implementing classification models for churn prediction and utilizing clustering algorithms for segmentation, I provided actionable insights to drive retention campaigns. Additionally, I maintained and improved data visualization dashboards to effectively communicate results, supporting collaboration and data-driven decision-making among internal teams.

ACADEMIC EXPERIENCE

Oct 2022 - Present (8 months)
Universidade do Porto

Master's Student

Engaged in an in-depth exploration of computer vision methodologies as applied to the analysis of human tissue images across various organs. The goal of this research is to identify and understand the potential relationships between different organ images and their corresponding phenotypes. As a part of a larger project, this research complements findings from various omics data sources and aids in a comparative evaluation of each data source's efficacy.

Throughout this project, I am gaining a nuanced understanding of computer vision, including but not limited to deep learning techniques, image processing, augmentation methodologies, and texture analysis. Practical skills in GPU resource management and overcoming memory-related challenges are also being honed, enabling more efficient execution of computer vision tasks.

2015 - 2017
University of São Paulo

CNPq researcher

During my bachelor's as a CNPq researcher at the Institute of Physics of the University of São Paulo (IF-USP), I worked on a research project focusing on the atomic-level magnetic structures in nanomaterials. My work revolved around employing the Density Functional Theory (DFT) to understand these structures better. Central to this project was the application of Local Spin Density Approximation (LSDA) programmed in Fortran to solve Schrödinger's equation for nanosystems. All computations were handled within a Linux environment to ensure the overall efficiency of the simulations. The subsequent analysis of the results was conducted using Python, which allowed for a understanding of the magnetic properties of the studied nanomaterials.

2012 - 2013
University of São Paulo

CNPq researcher

As a CNPq researcher at the Institute of Astronomy, Geophysics and Atmospheric Sciences of the University of São Paulo (IAG-USP), I played a role in a project focusing on understanding the monthly mean radiation balance on the surface of the Antarctic region around the Brazilian base *Comandante Ferraz*. The project necessitated processing and analyzing a vast volume of data collected from a radiation intensity sensor installed at the base. Leveraging descriptive statistical methods for analysis, we aimed to shed light on the net radiation characteristics in the Antarctic region. This experience not only improved my data analysis skills but also offered a practical perspective on applying these techniques in a real-world research setting.

COURSES AND CERTIFICATIONS

- **Data Science Professional Certificate**
  IBM on Coursera
  Certificate link
- **Applied Data Science with Python**
  Michigan University on Coursera
  Certificate link
- **Deep Learning in Astronomy**
  IAG - USP
  Credential ID: 6VNB-53Y3-7U7Q-BIE5
  Certificate link
- **Practical Time Series Analysis**
  SUNY on Coursera
  Certificate link