TATIANE SANTOS

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Summary

Experienced Data Scientist with a strong foundation in advanced analytics and complex algorithms, showcasing excellent research, technical, and problem-solving skills. Proficient in leveraging cutting-edge Generative AI/ML methodologies to industry problems and adept at communicating intricate findings to both technical and non-technical audiences.

Education

Ph.D.: Physics 12/2018
Fluminense Federal University | Brazil
- 4.0/4.0 GPA

*Recipient of nearly all available awards in the program

Experience

Data Scientist - Artificial Intelligence 10/2022 - Current
Employer: ADM | Erlanger, KY, USA
- Developed AI Agent using LangChain and OpenAI APIs, enabling users perform advanced SQL queries on large logistics datasets through natural language.
- Developed AI Chatbot that allowed users to quickly find information through several PDFs using natural language.
- Engineered a full-stack Logistics Optimization application, using Python/Flask/Axios/React /Javascript/CSS, and RESTful API endpoints.
- Leverage cloud-based infrastructure (Azure) with Pandas Python, SQL and PowerBI on an everyday basis, for data manipulation, analysis, and model development.
- Perform advanced prompt engineering techniques to streamline code development processes.
- Scaled projects from US to Latin America, working with international and cross-functional teams.
- Developed a customer segmentation model utilizing web-scrapping, natural language processing, geolocation analysis and neural networks.

Data Science/ Machine Learning Consultant 08/2022 - Current
Employer: Purdue University | West Lafayette, IN, USA
- Managed a machine-learning scientific research project. Advised a Data Science PhD student in a healthcare study that classified the glucose response to diets for more 100 participants. Wrote academic paper.

Associate Data Scientist 12/2021 - 10/2022
Employer: Wildlife Studios | Sao Paulo, Brazil
- Built several business cases to increase the revenue up to 20% at zero cost of implementation, using econometrics/advanced statistics, Machine Learning/Artificial Intelligence, and Big Data programming (Spark/SQL/R/Python), for the company's worldwide products and features.
- Performed several data analysis on pricing, user's engagement, new products development, anomaly detection, recommendation algorithms, and A/B testing, with impact up to Millions of dollars to the company.
- Developed an algorithm to solve the peaking in AB tests problem during the company's Hackaton, the solution was based on an academic paper.

Postdoctoral Researcher 01/2019 - 11/2021

Employer: University of Illinois Urbana-Champaign | Champaign, IL, USA

- Performed data analysis on Big Data using Python and Machine Learning, identifying novel quantum scattering mechanisms, leading to publications.
- Performed data analysis of defects in 2D materials, combined with Machine Learning model, leading to publication
- Lectured Materials Properties to undergraduate students of UIUC engineering program.
- Wrote grants, papers, and scientific reports, and presented work in local and international conferences
- Advised student in Computer Science program in Computational Physics project.

Research Assistant 12/2014 - 12/2018

Institution: Fluminense Federal University | Rio De Janeiro, Brazil

- Developed the most precise model of the Quantum Hall Effect in realistic-size samples (100K nanometers squared) for the time, using Python and Fortran.
- Benchmarked sparse matrix algorithms using advanced linear algebra concepts, leading to publication in Computational Physics journal.
- Graduated with the highest GPA of the department, with a 99.9% score.

Visiting Scientific Researcher 06/2017 - 12/2017

Institution: Atomic Energy Commission | Grenoble, France

- Collaborated with team of developers of a Python package for quantum dynamics (+100K downloads).
- Developed high-performance computing scripts using Python parallel programming to simulate particle dynamics in large size samples of semiconductors, leading to publication.

Skills

- Python / R / SQL
- TensorFlow / Pytorch
- Generative AI
- LLMs
- Prompt Engineering
- Microsoft Azure
- PySpark
- Databricks
- Apache Airflow
- Machine Learning / Deep Learning / Neural Networks
- Artificial Intelligence (AI)
- Parallel Programming
- Project Management
- Advanced Statistical Analysis
- Business Forecasting
- Advanced Mathematical Modeling
- AB Testing

Certifications

- Career Essentials in Software Development - Microsoft - 2024
- Career Essentials in Generative AI - Microsoft - 2023
- Introduction to Large Language Models - Google - 2023
- Generative AI Fundamentals - Google - 2023
- Transformer Models and BERT Model - Google - 2023
- Build a natural language processing solution with Azure AI Language - Microsoft - 2023
- Azure AI Document Intelligence - Microsoft - 2023
- Build an Azure AI Vision solution - Microsoft - 2023
- Microsoft Certified: Azure Fundamentals - Microsoft - 2023
- Implement security through a pipeline using Azure DevOps - Microsoft - 2023
- Deploying Machine Learning Models - Data + AI Summit 2022 - Databricks
- Performance Tuning on Apache Spark - Data + AI Summit 2022 - Databricks

Honors Awards

- 2015 Outstanding presentation award - PhD Qualification Exam
- 2017 1st place - Brazilian International Exchange Program
- 2017 FAPERJ "Grade 10" - Best student of the Physics Program - Rio de Janeiro State
- 2018 Best poster award - Physics - Fluminense Federal University

Languages

English:

Native/ Bilingual

Portuguese:

Native/ Bilingual

Spanish:

Native/ Bilingual

French:

Professional

References

References available upon request.