Mateus Silva Aragao

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EXPERIENCE

Junior Laboratory Associate — Feb 2023 – Present
New York University, Counrant Institute — *New York, NY*

- Developing a web interface using JavaScript, Flask, HTML, and CSS for visualizing RNA splicing predictions, enhancing data interaction and user experience.
- Analyzing cell profiling data using CellProfiler and Python, creating comprehensive visual representations with Pandas and Matplotlib to derive actionable insights.
- Mentoring three undergraduate students in biological computing research, providing technical guidance and fostering skills relevant to their academic projects.

Data Engineer Intern — May 2023 – Aug 2023
Amazon Inc. — *Boulder,CO*

- Engineered an observability framework for Spark applications on AWS EMR, handling over 500 spark tasks and processing petabytes of data, optimizing performance and scalability.
- Developed analytics dashboards in AWS Quicksight for real-time monitoring of Spark applications, improving visibility into performance metrics like shuffle and spill.
- Implemented a cloud infrastructure with AWS CDK in TypeScript, integrating with production and beta pipelines, to support data workflows for applications critical to customer data views.

Product Data Analyst Intern — May 2022 – Aug 2022
Moises.ai — *Remote*

- Orchestrated an A/B testing analysis for a novel AI-assisted songwriting editor at Moises.ai, using Python and statistical methods to evaluate model efficacy across 2,000 users over three months.
- Developed and maintained an ETL pipeline using SQL in Google Big Query, facilitating streamlined data preparation for Tableau dashboards that monitored user engagement and demographics.
- Synthesized and presented key product insights to stakeholders through Tableau visualizations, driving strategic decisions for the AI music startup's product development.

Intro To Programming Tutor — Sep 2021 – Dec 2023
New York University — *New York, NY*

- Conducted over 150 tutoring sessions across 2-3 classes per semester at NYU, supporting around 800 students annually with programming concepts, assignments, and exam preparation.
- Provided flexible tutoring services, including in-person and drop-in Zoom meetings for 10+ hours weekly, adapting to diverse learning needs and schedules.
- Enhanced student engagement and understanding in Python programming through personalized instruction and collaboration with faculty to refine course content.

PROJECTS

Spotify Opposite Style Playlist | *JavaScript, Next.js, AWS S3, Spotify API* — Sep 2023 – Present

- Designed an algorithm to curate opposite-taste' playlists via the Spotify API by analyzing musical attributes of user preferences against a dataset of more than 25,000 artists.
- Transitioning the service to a Flask web app for user-friendly access, and enhancing song selection logic with lyrical analysis for richer playlist curation.
- Employing Python, NLP libraries, and music APIs to innovate a feature that challenges listeners with unexpected, contrasting music recommendations.

EDUCATION

New York University — New York, NY
Bachelor of Arts in Computer Science And Data Science — *Dec. 2023*

TECHNICAL SKILLS

Languages: Python, Scala, JavaScript, SQL | **Frameworks**: Flask, MapReduce, Hadoop ApacheSpark
Data Vizualization Tools: Tableau, AWS Quicksight | **Developer Tools**: Git, AWS,Google Big Query
Libraries: pandas, NumPy, Matplotlib,Scipy **Languages**: Portuguese, Spanish