

SIDNEY ALVES DE OUTEIRO

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Rio de Janeiro - RJ Brasil

EDUCATION

Engineering and Computing Systems Program - UFRJ, Rio de Janeiro

Master's Degree in Computer Engineering

- June 2023 - Present | Estimated completion date: July 2025

Federal University of Rio de Janeiro, Rio de Janeiro

Bachelor's degree in Computer Science

- August 2018 - December 2023

WORK EXPERIENCE

CEPEL/Eletrabras

March 2024 - Current

Senior IT Analyst

Worked on the development of scalable and robust solutions focused on monitoring and analytics in the Open Energy Management System (SAGE), directly contributing to the creation of dynamic and responsive interfaces using Angular. By implementing fast and secure APIs with FastAPI, I integrated data streams using Kafka to ensure real-time processing of large volumes of information. I utilized Docker to manage development and deployment environments and PostgreSQL to efficiently handle databases, ensuring integrity and performance in operations. Through these technologies, I contributed to the continuous improvement of the system and the development of new features to optimize energy management.

Loggi

July 2022 - February 2023

Data Science Internship

Expertise in preparing exploratory analyses, data modeling using SQL, creating cost reduction proposals and simulating them. Development of monitoring dashboards and preparation of business metrics.

IBM

December 2021 - June 2022

Software Development Internship

Worked on developing a service to assist IBM's financial sector, to take control over the charges that should be made and alerting customers about bills to be paid. Provide support to system users and maintain APIs.

CAM Tecnologia

June 2020 - July 2021

FrontEnd Developer Junior

Expertise in developing, implementing and maintaining the screens of a retail company management application. HTML, CSS, JavaScript, React, ReduxJS, TypeScript and integration tests.

ACADEMIC EXPERIENCE

Two Students: Enabling Uncertainty Quantification in Federated Learning Clients

NeurIPS BDU Workshop 2024 Poster

Paper Link

A Deep Learning Model for Precipitation Nowcasting Using Data Fusion

2024 IEEE International Conference on Multisensor Fusion and Integration for Intelligent Systems

TECNICAL SKILLS

- **Data Collection & Management**
 - **Data Warehousing:** Designing and maintaining databases and data warehouses.
 - **ETL Processes:** Developing ETL (Extract, Transform, Load) processes for data integration using DBT.
 - **Data Cleaning & Preprocessing:** Ensuring data integrity and quality through cleaning and preprocessing techniques.
- **Programming & Software Development:**
 - **Languages:** Python, JavaScript, SQL, NoSQL.
 - **Frameworks & Libraries:** Flask, Django, NodeJS, Express.js, React, ReduxJS, TypeScript, Scikit-Learn, Tensorflow, OpenCV.
 - **CI/CD:** Experience with Docker and CI/CD
- **Data Analysis & Machine Learning:**
 - **Exploratory Data Analysis (EDA):** Identifying trends, patterns, and insights using data analysis techniques.
 - **Predictive Modeling:** Developing and validating predictive models.
 - **Machine Learning Algorithms:** Experience with machine learning algorithms and frameworks, including Scikit-Learn and Tensorflow.
 - **A/B Testing & Causal Inference:** Designing and analyzing experiments.
- **Data Visualization:**
 - **Visualization Tools:** Creating data visualizations using Matplotlib, Pandas, and Looker.
 - **Dashboard Development:** Developing interactive dashboards for presenting data insights.
- **Cloud Computing & Tools:**
 - **Cloud Platforms:** AWS, Google Cloud.
 - **Version Control & Project Management:** Git, Github, Jira.

LANGUAGES

- English: Proficient (B2)
- Portuguese: Fluent

EXTRACURRICULAR

- Active member of the Networks and Multimedia Laboratory (LabNet) of the Electronic Computing Center (NCE) at UFRJ
- Contributing member of the Analytica UFRJ competition team
- Member of the team that represented UFRJ at the Hackathon held by Embrapa in 2019, Vacathon.
- Participated in the Brazilian delegation at the 2022 Internet Governance Forum held in Ethiopia.