Mariana Meireles

Systems engineer and coordination researcher

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SELECTED PROFESSIONAL EXPERIENCE

ANACONDA Remote, Berlin, GE

Software Engineer III

May 2022 - May 2023

- Engineered and improved various aspects of PyScript's API, including the output system, core Python code re-architecture, WASM integration and Python multithreading in the browser, implemented the initial testing infrastructure and several aspects of the CI system
- Led early efforts in community building for PyScript. Built bridges with external projects like JetBrains, Jupyter, Pyodide and other contributors
- Organized an international, cross-project group with 8 organizations and 20+ contributors to establish a centralized set of protocols for Python web development

NASA Remote

Subject Matter Expert

Jun 2022 - Aug 2023

- Presented the state of the art of the open science research ecosystem to the group of researchers
- <u>Collaborated</u> in building the chapter on the "Ethos of Open Science" for NASA's upcoming EdX Open Science 101 course

QUANTSTACK Remote, Berlin, GE

Scientific Software Engineer

Feb 2020 - Apr 2022

- <u>Integrated the Cytoscape interactive graph</u> library into the Jupyter ecosystem as a widget. Developed <u>Jupyter kernels to support major SQL languages</u> and implemented data visualization capabilities for SQL query outputs within the notebook environment. Added a <u>new visualization mode</u> to Jupyter notebooks. Created a <u>deprecation finder</u> for Bloomberg software and contributed it to the Jupyter project
- Authored several aspects of the Mamba and Micromamba APIs and developed R bindings, resulting in a package manager system 25x faster than CRAN. Released and maintained several different packages in the conda-forge ecosystem

MOZILLA Remote

Web Performance Intern

DEZ 2018 - FEB 2019

- Cut the average loading time of the <u>Webcompat</u> website by 35% through the implementation of server-side rendering, HTTP/2, enhanced compression algorithms, and the removal and reimplementation of libraries
- Employed Selenium-designed tests to track down some performance bottlenecks and decrease the page load time by 1s in low-speed mobile connections
- Worked on small patches for Firefox, available on my bugzilla profile

COMPUTER SCIENCE DEP. - UFMG

Belo Horizonte, BR

Undergraduate Researcher

Mar 2018 - Jun 2018

• Collaborated with Dr. Flavio Figueiredo to investigate potential correlations between language use and gender using NLP and big data analytics

EDUCATION

SANTA FE INSTITUTE Remote

Santa Fé Institute - Complexity Interactive Ост 2023 - Ост 2023

RECURSE CENTER New York City, US

Researcher in Reinforcement Learning and Emergent Algorithms Jun 2023 - Sep 2023

AI Coordination software projects

MIT Remote

Micro Masters Program in Data, Economics and Development Policy **May 2023 - Hiatus**

UNIVERSIDADE FEDERAL DE MINAS GERAIS

Belo Horizonte, BR

Bachelor of Engineering, Major in Electrical Engineering; Minor in Computer Science (Incomplete)

2015 - 2018

ADDITIONAL PROJECTS

- RADAR Generative AI Research Engineer (Present): RADAR is a research collective called RADAR that is looking into ways of democratizing research. I am a generative AI developer working on their upcoming research report about how the future will be affected by AI (2023).
- DISC NumFOCUS Steering Council Member (Present): Responsible for organizing the NumFOCUS Unconference 2023, updating the NumFOCUS DISCOVER Cookbook and developing integration programs aimed at enabling participation from individuals in poverty within the open science ecosystem
- Jupyter Widgets Committee Member (Present): Community maintenance and governance stewardship
- Women of Color Code Organizer (Present): Software mentor and co-organizer of this project that seeks to unite members of minoritized groups to battle feelings of isolation and marginalization that are prevalent in educational institutions and industry settings
- PyLadies Berlin Organizer (Present): Organizer of PyLadies Berlin, facilitating workshops and talks
- Open Life Science Mentor (2023): Mentored an undergraduate software engineer in the development of a program designed to integrate young research software engineers into the field. This project is affiliated with **UK-RSE**
- Guest Lecturer by the LSSTC-DSFP at Harvard (2022): Instructed graduate students in Astronomy on topics such as Object-Oriented Programming (OOP), performance optimization for scientific software, as well as open science and reproducible research practices

AWARDS

"Jupyter Distinguished Contributor" award

2022