# **Mariana Meireles**

# **Systems and Software Engineer**

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### 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 and Pyodide and with 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 <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 <u>R bindings</u>, 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**

RECURSE CENTER New York City, US

Independent Researcher in Reinforcement Learning and Emergent Algorithms

2023 - Present

Developing AI Coordination software projects

MIT Remote

Micro Masters Program in Data, Economics and Development Policy 2023 - Present

UNIVERSIDADE FEDERAL DE MINAS GERAIS Belo Horizonte, BR

Bachelor of Engineering, Major in Electrical Engineering; Minor in Computer Science (Incomplete) 2015 - 2018

## **ADDITIONAL PROJECTS**

- **DISC NumFOCUS Steering Council Member:** Responsible for organizing the NumFOCUS Unconference 2023, updating the NumFOCUS DISCOVER Cookbook and <u>developing integration programs</u> aimed at enabling participation from individuals in poverty within the open science ecosystem
- Jupyter Widgets Committee Member: Community maintenance and governance stewardship
- Guest Lecturer by the LSSTC-DSFP at Harvard: <u>Instructed graduate students in Astronomy</u> on topics such as
  Object-Oriented Programming (OOP), performance optimization for scientific software, as well as open
  science and reproducible research practices
- Women of Color Code: 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
- **Open Life Science:** 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
- PyLadies Berlin: Organizer of PyLadies Berlin, facilitating workshops and talks

# **AWARDS**

• "Jupyter Distinguished Contributor" award

2022