Iago Mendes

Computational Physicist

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Education

Bachelor's Degree, Oberlin College
Physics & Computer Science Double Major **Spring 2021 – Fall 2024**

- Overall GPA: **4.01** / 4.00. Major GPA: **4.03** / 4.00.
- STRONG (Science and Technology Research Opportunities for a New Generation) Scholar
- John F. Oberlin Scholarship Recipient
- Relevant Coursework:

Modern Physics	Waves & Optics	Computational Physics (**Python**)
Classical Mechanics	Quantum Mechanics	Electromagnetism & Thermodynamics
Astrophysics: Stars & Planets	Algorithms	Systems Programming (**C**)
Data Structures (**Java**)	Theory of Computation	Computer Architecture (**Assembly**)

Experience

Oberlin College – Oberlin, OH
Researcher, SXS collaboration **Fall 2021 – Present**

- Developed a finite-difference **C++** code with a method for embedding **black holes** into flat space.
- Developed method on the **Spectral Einstein Code** and ran binary black hole merger **simulations**.
- Presented at the **APS April Meeting** (2023) and Oberlin's **Research Symposium** (2022, 2023).
- Selected as **Featured Researcher** by Oberlin's Office of Undergraduate Research.

Resident Assistant, Underrepresented in STEM House **Fall 2021 – Present**
Teaching Assistant **Fall 2022 – Present**

- Courses: Mechanics & Relativity, Electromagnetism & Thermo., and Programming Abstractions.

STEM Community Leader **Fall 2023 – Present**

Google – Bay Area, CA
SWE Intern, Wear OS **Summer 2023**

- Used **Java** and **C++** to develop features on the **Android** operating system for smartwatches.
- Worked on three parts of the codebase, completing two additional projects beyond the initial scope.
- Collaborated with my team and others, including managers, input engineers, and UX designers.

STEP Intern, Google Assistant **Summer 2022**

- Used **Angular** (**TypeScript**) to create reusable components for Google's issue-tracking platform.
- Used **Sass** and **Angular Material** to build a modern, intuitive UI with support for themes.
- Completed entire development process: design doc, implementation, documentation, and launch.

Projects

Star View starview.one

- Developed app & website for stargazing conditions.
- **10k+** installs & **1k+** active users on Google Play.

Hyperbolic Spectral Solver bit.ly/HySpec

- Used **Python** to solve the wave and advection equations using **spectral methods**.

Astronomical Olympic League

- Created free materials and events for students to prepare for Astronomy competitions.

Awards

Intl. Astronomy & Astrophysics Competition

- Gold Honor for being in the **top 5%** (2021, 2023).
- Silver Honor for being in the top 10% (2020).
- Ambassador Award for recruiting students (2020).

International Youth Math Challenge

- Silver Honor for being in the top 10% (2021).
- Bronze Honor for being in the top 20% (2020).

Intl. Astronomical Search Collaboration

- Provisional Discovery of an Asteroid (2021).