Maria Beatriz Silva

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Education

New York University, Courant Institute of Mathematical Sciences 5/2026

- BA Computer Science, Minor in Mathematics, GPA: 3.92
- Honors: Presidential Honors Scholar, Dean's List, DURF Grant Recipient
- Relevant Coursework: Data Structures, Computer Systems Organization, Basic Algorithms, Computer Graphics, Discrete Mathematics, Calculus II, Linear Algebra (in progress), Probability & Statistics (in progress), Introduction to Computer Simulation (in progress)

Hunter College High School, New York 9/2016 – 7/2018, 9/2019 – 6/2022

- Awards: National Hispanic Scholar Recognition Award, Gold Medal and Ranked 4^{th} in National French Contest

Extracurricular Coursework: Computational Thinking with Python, Tech Scholars ONLINE: Web Design.

Technical Skills

Java, C, LaTeX, Final Cut Pro, Git, JavaScript, HTML, CSS, WebGL, Python, Matlab, Matplotlib, Pandas, Unix

Work Experience

Incoming Software Engineering Thrive Intern, Duolingo 6/2024 – 8/2024

- 1 of roughly 15 students nationwide accepted to Duolingo's Thrive internship program on the software engineering track.

Projects

Binary Star System with a Non-Circumbinary Planet 2/2024

- Mathematically modeled a binary star system with a non-circumbinary planet and conducted a parametric study on the behavior of such planets.

Murano Glass Cup Simulator, New York University 12/2023 – 1/2024

- Modeled Murano glass cups using WebGL and Javascript.
- Designed the dimpled mesh and a custom procedural texture for the cups.

Acronym Expander, Courant Institute, New York University 6/2020 – 9/2020

- Advanced the development of a learning-based system to perform automatic expansion of acronyms in 5 languages in a team led by Professor Dennis Shasha by: porting the system from Linux to MacOS, evaluating the effectiveness of methods, and annotating 5.9 GB of Portuguese and Spanish data sets.
- Learned Python, library dependency management, version control management, and UNIX systems programming.

The Effect of Certain Genetic Modifications on types of Breast Cancer Contracted by Female Humans 9/2018 – 5/2019

- Researched how certain genetic modifications affect the type of breast cancer contracted by female *homo-sapiens.*
- Wrote code in Python to organize the occurrences of and compute correlations between genetic modifications and relevant types of breast cancer using 4.8MB of data from the National Institute of Health Cancer database.

Leadership and Professional Development

Education Fellow, Emerging Leaders in Technology and Engineering (ELiTE) 9/2023 – Present

- Utilizing and developing effective teaching strategies to help instruct a weekly 5-hour course on programming in C++ and Arduino to students from underrepresented backgrounds.
- Facilitating 1-on-1 sessions to enhance student understanding and guide them in building programming project portfolios.

Career Preparation Fellow, Management Leadership for Tomorrow 2/2024 – Present

- Accepted to a selective 18-month professional development program for high-achieving diverse talent.
- Complete technical assignments and attend sessions to grow leadership and technical skills.

NYU AI School, New York University 5/2023 – 6/2023

- Explored machine learning fundamentals and research through a series of labs, workshops, and discussions with machine learning experts.

Computer Science Research Mentorship Program Scholar, Google Research 3/2023 – 5/2023

- Met with a Google mentor and a pod of peers to discuss our pursuit of computer science research.
- Attended various workshops centered around computer science research pathways.

Publications

PaleoScan: Low-Cost Easy-to-Use High-Volume Fossil Scanning (Accepted) 2/2024

- Enhanced technical-writing skills by co-authoring a paper submission alongside a team of researchers to the 2024 ACM CHI Conference, the premiere international conference on Human-Computer Interaction.
- Helped conceptualize the interface design for PaleoDP, the data processing and annotation pipeline proposed by the paper.
- Directed and produced the video submission.

Additional Skills

Portuguese (Native), French (Fluent), Spanish (Proficient), Italian (Beginner)