Maria Beatriz Silva

mariasilva@nyu.edu | *linkedin.com/in/mariabiasilva/* | *github.com/mariabeatrizsilva/* | (347) 634-1732

Education

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

- BA Computer Science, Minor in Mathematics, GPA: 3.94
- Honors: Presidential Honors Scholar, Dean's List, DURF Grant Recipient
- Relevant Coursework: Data Structures, Computer Systems Organization, Basic Algorithms, Computer Graphics, Fundamentals of Machine Learning (in Progress) Discrete Mathematics, Calculus II, Linear Algebra, Probability & Statistics, Introduction to Computer Simulation

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

TypeScript, React, Java, C, LaTeX, Git, JavaScript, HTML, CSS, WebGL, Python, Matlab, Matplotlib, Pandas, Unix

Work Experience

Incoming Software Engineering Intern, Duolingo 5/2025 – 8/2025

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

- Selected as 1 of 19 students nationwide for Duolingo's Thrive internship on the software engineering track.
- Co-developed a full-stack web application for Duolingo Music users to practice skills with a virtual piano in a non-graded, playful environment. Our platform allowed for users to "freeplay", compose their own songs, and share their work with their friends, for a stress-free and social learning experience.
- Designed and built custom digital assets, including an interactive virtual keyboard, using TypeScript and React.
- Refactored and optimized the codebase for modularity to enhance asset reusability and code clarity.
- Engineered a unique database schema using DynamoDB to enable efficient song saving and sharing.

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

- Created graphical models of Murano glass cups by designing a dimpled mesh and a custom procedural texture.

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.

Leadership and Professional Development

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.

Education Fellow, Emerging Leaders in Technology and Engineering (ELiTE) 9/2023 – 6/2024

- 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.

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

- Explored machine learning (ML) fundamentals and research through labs, workshops, and discussions with ML 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. In Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems, pages 1 – 16.

- 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; co-presented the paper at ACM CHI 2024.

Additional Skills

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