

Meagan A. Gonzalez

US Citizen | mgonza51@syr.edu | (347)-320-3325 | [LinkedIn: Meagan Gonzalez](#) | [GitHub: mgonza51](#)

EDUCATION

Syracuse University

Syracuse, NY

B.S. in Computer Science

Expected Graduation, May 2026

- GPA: 3.82/4.00, Dean's List
- Related Coursework: Data Structures, Physics I & II, Calculus I & II, Linear Algebra, Discrete Mathematics

EXPERIENCE

Syracuse University Bioinspired Lab

Syracuse, NY

Research Assistant

August 2023 – present

- Utilizing C++ to run physics simulations for projectile motion, generating data sets for further analysis and visualization in Jupyter Notebook; applied calculus principles to calculate energy levels and forces within simulated biophysical systems, leading to precise analysis of cellular behavior while working 40 hours per week during the summer.

Career REU (Research Experiences for Undergraduates)

Syracuse, NY

Research Assistant

June 2023

- Utilized laboratory techniques to investigate the shape-morphing properties of cross-linking polymers, increasing understanding of their potential applications in biomaterials.
- Analyzed and interpreted data from the Protein Data Bank on PyMol, finding key structural features and surface characteristics of proteins, contributing to studies on the transportation of drug molecules using Python.

PROJECTS

Transitive Closure

Syracuse, NY

Solo Project

February 2024

- Developed a transitive closure that stimulates servers and links through the Racket programming language, achieving a grade of 118% for the project, demonstrated mastery in functional programming languages.

Scheme Interpreter

Syracuse, NY

Solo Project

March 2024

- Implemented a program that processes and evaluates programs in Scheme-like languages using Racket leading to grade of 100%.

Energy Barriers

Syracuse, NY

Team Project

May 2024

- Conducting advanced simulations on a system of four cells using calculus and physics principles, applying forces and creating data visualizations in C++ and Python, resulting in improved understanding of cell interactions and dynamics.

ACTIVITIES AND LEADERSHIP

VEX-U Robotics

Syracuse, NY

Executive Assistant/Media Manager

February 2024-present

- Assisting in planning and organization of club events, supporting the President and Vice President, organizing pictures and videos of members and robots, maintaining social media posts and club updates.
- Applying technical expertise in C++ to assemble robots and develop programs tailored to their configurations, ensuring optimal functionality and performance in various tasks and competitions.

TECHNICAL SKILLS

Programming: Java, Python, C++, C, HTML, CSS

Tools: JGRASP, PyCharm, Jupyter Notebook, G Suite, Microsoft Suite

ORGANIZATIONS

Society of Hispanic Professional Engineers (SHPE) | Member

Color Stack | Member