

Michael Lizzio

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Objective

Seeking a part-time software engineering internship for Summer 2025 to apply and expand my skills in problem-solving, communication, and software development. Eager to contribute to innovative projects while gaining hands-on experience with new technologies and industry practices.

Education

Rochester Institute of Technology

Rochester, NY

Bachelor of Software Engineering Cumulative GPA: 4.0

2024-2028

Major: Software Engineering **Minor:** Cybersecurity **Immersion:** Geographic Information Systems

Relevant Coursework: Software Development & Problem Solving I & II, Personal Software Engineering, Introduction to Software Engineering, Engineering Web-based Software Systems

Skills: Python, Micropython, HTML, JavaScript, Java, MATLAB, git, Communication, Requirements Development, Creative Problem Solving, Patience

Personal Projects

Home Alarm System

Summer 2021-Spring 2022

- **Enhanced Hardware Integration:** Upgraded an existing alarm system by soldering wires and integrating a Raspberry Pi and Pi Hat to detect LED flashes.
- **Developed Advanced Notification and Statistical Features:** Created software that included email and SMS alerts, audio notifications for door openings, and comprehensive statistics tracking for system events, enhancing security and usability.
- **Designed Custom User Interface:** Created a completely custom GUI with Pygame for a mini touch screen, allowing users to view information and customize a variety of settings.

Automated Foosball Goalie

October 2022- December 2022

- **Developed an Automated Foosball Goalie:** Designed and built a robot using a Raspberry Pi, stepper motor, and OpenCV for ball tracking, demonstrating skills in hardware integration and software development.
- **Implemented Real-time Object Tracking:** Utilized OpenCV and Kalman Filter to predict and track the foosball's movement, enhancing the accuracy and efficiency of the robotic goalie.
- **Engineered Custom Motor Controller Software:** Created and refined software to control the stepper motor's speed and direction, resulting in a functional automated goalie with optimal positioning strategies.
- **Designed and Constructed Mechanical Frame:** Prototyped and assembled a sturdy frame using various materials, including T-slot aluminum, ensuring stable and precise movement of the goalie mechanism.

Work Experience

Cyber Data Management

TTM Technologies Defense Contractor

Farmingdale, NY 2024 (Consultant)

- Quickly learned about Cybersecurity Risk Management Framework (RMF) controls and the software associated with the project. After receiving the desired workflow, I expanded upon it and engaged in constructive communication to identify the data conversion requirements.
- Developed user-friendly GUIs in Python using Tkinter, enabling Cybersecurity specialists to easily modify data in XML files. Employed various techniques to test the code with different inputs to identify all edge cases.

Lifeguard

Greybarn

Amityville, NY 2022-present (Part Time)

- Worked with a team of lifeguards and management to ensure patron safety, calmly and professionally defusing conflicts.
- Applied problem-solving skills and attention to detail to resolve technical issues in the pump house.