Michael Lizzio

Software Engineering Student

Contact

michaeljlizzio@gmail.com

(516) 636-9491

Rochester, NY

Linkedin

michael-lizzio.github.io

Education

Massapequa High School, NY
2019 - 2024 94 GPA

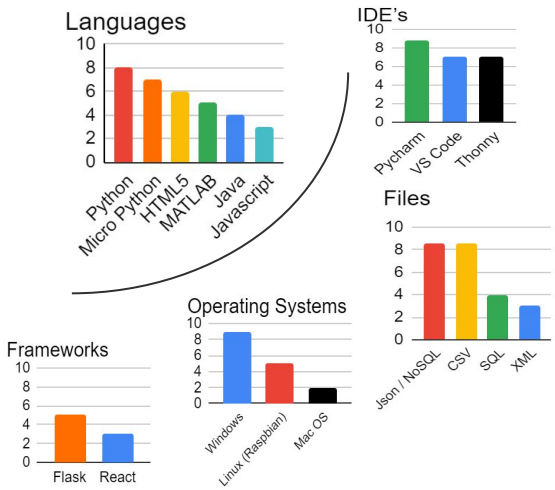
Rochester Institute of Technology
2024 - 2028

Major: Software Engineering
Minor: Cybersecurity
Emersion: Geographic Information Systems

Relevant Courses:

- Software Dev & Prob Solv I, II
- Personal Software Eng
- Intro to Cyber Sec
- Intro Software Eng
- Eng Web based Software Sys

Skills



Work Experience

Lifeguard

Greybarn
Amityville, NY | 2022 - current (Part Time)

- Ensured the safety of all patrons
- Checks and adjusted pool chemicals

Data Manipulation Specialist

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 until all known and discovered needs were met.
- 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.

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 Tracking 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 (KURT)**: 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**: 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 Legos and cardboard, ensuring stable and precise movement of the goalie mechanism.