Asa Paparo

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Education

Massachusetts Institute of Technology — Cambridge, MA
Candidate for Bachelor's Degree in Computer Science — 8/2024 – Present
- Completed *Fundamentals of Programming* and *Introduction to Low-level Programming*
- Currently taking *Robotics: Science and Systems* and *Computation Structures*

The Bronx High School of Science — Bronx, NY
Advanced Regents Diploma — 8/2020 – 6/2024
- 4.0 GPA
- Completed courses in linear algebra, multivariable calculus, mechanics, and electricity & magnetism
- Student Director of IT for the journalism and yearbook programs

Experience

MIT Motorsports — Cambridge, MA
Autonomous Driving Software Engineer — 8/2024 – Present
- Create codebase for newly founded autonomous racing team
- Support subteam with ROS 2 and Linux problems
- Develop model predictive control implementation for racecar
- Rewrite ROS build and dependency management system to be more reproducible

Charles Stark Draper Laboratory — Cambridge, MA
Autonomous Systems Intern — 6/2024 – 8/2024
- Developed software for control and simulation of a fully autonomous rover with ROS2 and Gazebo
- Collaborated with engineering team of 7 interns to budget, plan, and implement solution to design challenge

SciBorgs Robotics Team — Bronx, NY
Head of Software — 5/2023 – 6/2024
- Led software team of 10+ people in development and integration of robot software
- Taught new members programming, version control, software development, calculus, and basic control theory

Programmer — 11/2021 – 6/2024
- Contributed to upstream development of critical libraries utilized by teams, including WPILib
- Employed control theory, path following, and localization to achieve autonomy in competition

NYC FIRST — NY
Volunteer — 11/2022 – 12/2023
- Taught foundational programming and robotics knowledge to middle school and high school students
- Mentored the students to engage in a STEM design process
- Volunteered at local competitions, including as a referee

Awards

Dean's List Finalist — FIRST Robotics — 4/2023
Disruptive Engineering Award — Beaver Works Summer Institute — 7/2023

Skills

Programming: Rust, Python, Java, C, C++, Bash, C#, JS, TS, PHP
Robotics: ROS2, Gazebo
Tools: Linux, Systemd, Nix, Docker/Podman, Helix, typst, LaTeX, Git