

Asa Paparo

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anglesideangle.github.io

I'm a freshman at MIT interested in physics, computer science, robotics, control theory, osdev, and more.

Education

Massachusetts Institute of Technology Bachelors Degree in Computer Science *8/2024 - 5/2028*

The Bronx High School of Science 4.0 GPA, Advanced Regents Diploma *8/2020 - 6/2024*

Awards & Recognition

- Beaver Works Summer Institute, Dr. Bob Disruptive Engineering Award, Summer 2024
- FIRST Robotics, Dean's List Finalist, Spring 2023

Experience

Charles Stark Draper Laboratory 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

Beaver Works Summer Institute Autonomous RACECAR Competitor *7/2023 - 8/2023*

- Led and supported 3 person team to honorable mention in the Grand Prix
- Rewrote part of the course's core library to improve efficiency for all competing and future teams
- Researched particle filtering based SLAM and autonomous navigation using LIDAR and IMU

SciBorgs Robotics Team (FRC 1155) *11/2021 - 6/2024*

Head of Programming *5/2023 - 6/2024*

- Led software team of 10+ people in development and integration of software for manual and autonomous robot control
- Taught rookier members Java, software development, linear algebra, calculus, and control theory

Programmer *11/2021 - 6/2024*

- Maintained robotics codebases with a team using Java, WPILib, Git, and GitHub
- Rebuilt generational knowledge from the ground up after COVID
- Employed intermediate control theory, path following, and localization to achieve autonomy in competition

Mentor *11/2022 - 12/2023*

- Taught foundational programming and robotics knowledge to middle school and high school students
- Inspired and challenge the students to engage in a STEM design process
- Volunteered at local competitions, including as a referee

Bronx Science Journalism/Yearbook Program Student Director of IT *9/2022 - 6/2024*

- Maintained a production LAMP server utilizing bash, Ubuntu, Systemd, Apache, PHP, and Podman
- Published articles for the school newspaper and yearbook

Skills

Programming: C++, Rust, Python, Java, Bash, C#, JS, TS, PHP

Robotics: ROS2, Gazebo, ros2_control, Nav2, Drake, OpenCV, AprilTags

Tools: Fedora, Ubuntu, Systemd, Helix, Apache, Podman, Docker, Git, GitHub