

# Emily Satterfield

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## EDUCATION

**Massachusetts Institute of Technology**  
Candidate for Bachelor of Science

Cambridge, MA  
June 2022

**Lowell High School, Latin Lyceum**

Lowell, MA  
June 2018

- Valedictorian; 4.0 Unweighted GPA, 4.7 Weighted GPA
- Harvard Book Award (2017), National Merit Scholarship Commended Student (2017), Athletic-Academic Award (2016)

## EXPERIENCE

**Analog Devices – Intern**

Wilmington, MA  
Summer 2018

*Quality Intern, Failure Analysis Group*

- Prepared and imaged parts through mechanical cross-sectioning and use of scanning electron microscopes and FIB.
- Designed and 3D printed parts for organizational use in the lab.
- Trained three engineers and lab technicians in CAD and 3D printing

**FIRST Robotics Intern**

Summer 2017

- Worked with Analog Devices technologies to apply them to the FIRST Robotics Competition.
- Created documentation with instructions for autonomous programming in Java.
- Started a blog on the company's internal web page to showcase work throughout time.
- Developed software for the ADI demo robot to use at showcases for various autonomous functionalities

**Private Tutor**

Andover/Tewksbury, MA  
August 2017 - April 2018

*Math Tutor*

- Tutor two students in algebra, test prep, and geometry a few times a week in their homes.

**Lincoln Elementary School**

Lowell, MA

*After-school Teacher*

December 2016 - April 2017

- Introduced science and engineering concepts to third and fourth grade students via self-made hands-on activities. and robotics curriculum that mirrored STEM standards

## ACTIVITIES & VOLUNTEER WORK

**Undergraduate Researcher**

Cambridge, MA

*UROP in the Newman Laboratory*

September 2018-present

- Tasks include developing interface for compactRIO data collection in LabVIEW, running data experimental procedure and collecting data from human subjects using , and running data analysis on experimental results with MATLAB.

**MIT Energy Hackathon**

Cambridge, MA

*Events Co-Director*

July 2018 – present

- Led organization of logistics for MIT Energy Hackathon IV, where hundreds of students gather to solve real-world energy problems presented by companies.

**Rocket Team**

Cambridge, MA

*Structures Member*

September 2018-present

- Responsible engineer on the structures team for the fins. Designed, machined, and built the fins for the first rocket stage with the goal of achieving Mach 5 speeds.

**Women Business Leaders**

Cambridge, MA

*Associate Member*

September 2018-present

- Participated in various education seminars related to entrepreneurship, consulting, and finance.

**FIRST Robotics Competition Team 5962**

Lowell, MA

*Team Captain*

2017- 2018

- Directed and organized all the sub teams including outreach and business for the team
- Led the team in winning the New England Chairman's Award for outstanding community inclusion and outreach, as one of the youngest teams to ever receive the award

*Electrical Lead*

2015- 2017

- Designed and built the electrical systems of team's robots.
- Led the electrical team in the development of the electronic subsystem.
- Helped to integrate electrical systems with mechanical and software subsystems within specifications

**Merrimack Valley Robotics Inc.**

Lowell, MA

*Student Representative and Volunteer*

2016-present

- Organized and ran three FLL Jr. Expos for elementary school students in the Merrimack Valley
- Founded and organized five events at UMass Lowell bringing girls from around Massachusetts together with female engineers

## ADDITIONAL INFORMATION

**Skills & Languages:** SolidWorks, OnShape and Autodesk Inventor, Microsoft Excel, Powerpoint, and Word, LaTeX, Arduino & Java

**Interests:** Cooking, Painting, 3-D Printing, Reading