

# JUSTIN MILLER

<https://justinmiller33.github.io>

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## Education:

**Northeastern University College of Engineering: Boston, MA**

GPA: 4.0

Awards/Honors: University Honors Program, National Merit Scholarship

Activities: Aerospace NU, Big Data Club, ASME

Classes: Mechanics, Thermodynamics, Diff EQ, Statics, Material Science, Physics E&M

**Mansfield High School: Mansfield, MA**

Awards/Honors: Class Salutatorian, Harvard Book Award, National Merit Recipient

Leadership: Class Treasurer, Math Team Co-Captain, Relay For Life Team Captain

**Candidate in  
Mechanical  
Engineering**

09/2019-Current

**High School  
Diploma**

09/2015-05/2019

## Technical Skills:

Programming: Python | MATLAB | Bash | C++ (Basic) | SQL (Basic)

Engineering: Solidworks | Tableau | AutoCAD | Soldering | Power Tools

## Work Experience:

**CASE Assembly Solutions, Inc: Easton, MA**

- Efficiently and accurately tested soft and hard components of smart home devices to ensure quality products for clients.
- Worked with remote Linux Systems to install and debug critical softwares.
- Manually ensured the quality of electronics through Audio Video Bridge Testing.

**Test Technician**

05/2020-08/2020

**Contech Research, Inc: Rumford, RI**

- Analyzed the quality of electrical connectors through the preparation and execution of rigorous mechanical, chemical, and electrical tests.
- Assisted design and manufacture of custom PCBs for continuity testing.
- Operated and maintained proprietary Mixed Flowing Gas (MFG) chambers to ensure safe and accurate chemical exposure tests.

**Technician's  
Assistant**

06/2018-08/2018

**Big Y Supermarkets: Easton, MA**

- Worked with peers to process grocery purchases and ensure customer satisfaction.

**Cashier**

04/2017-11/2018

## Research and Projects:

**Automation in the Built and Living Environment Lab**

- Developing open-source software to process, verify, and segment 100+ GB of Ecobee SmartThermostat data to improve access for civil engineering researchers.
- Incorporating object oriented design (OOD) with MATLAB to create robust methods adherent to the key tenets of software development.
- Utilizing the MGHPCC supercomputer through a virtual Linux environment to support the timely transfer and processing of large amounts of data.
- Previously used MATLAB to create animated visualizations of indoor temperature fluctuations across the midwest; presented in Northeastern's 2020 RISE conference.

**Undergraduate  
Research**

11/2019-Current

**Project REDSHIFT: (Aerospace NU)**

- Using Solidworks FlowSim to generate data on aerodynamic performance.
- Working with Monte Carlo methods in MATLAB to simulate launch scenarios.

**Simulation and  
Stability Team**

1/2020-Current

## Interests:

Optimization, Automation, Data Science, Engineering Design, Project-Based Learning, Mountain Biking

**Project Website:**

[justinmiller33.github.io](https://justinmiller33.github.io)

**GitHub:**

[github.com/justinmiller33](https://github.com/justinmiller33)

**Kaggle:**

[kaggle.com/justinmiller](https://kaggle.com/justinmiller)