

# Madeline Mooney

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*New Computer Engineering Graduate seeking Back-End Software Engineering position starting May 2021.*

## Education

2016 - 2021 **Rochester Institute of Technology.**  
Bachelors of Science in Computer Engineering  
Minor in Computer Science  
3.35 GPA - Kate Gleason College of Engineering Dean's List

## Experience

Summer 2020 **Vulnerability Research Intern, Raytheon CODEX.**  
Intern on the Cybersecurity Tools and Services team.  
Optimized Linux build pipeline script execution time by rewriting files from Python to C.

Spring 2020 **Computer Vision Research Assistant, Rochester Institute of Technology.**  
Created real-time demonstrations for various computer vision PhD projects.  
Constructed modular and easily updated website for research group personnel.

Summer 2019 **Software Engineering Co-op, Moog Inc.**  
Fall 2019 Intern on the IT Solutions team.  
Designed IoT architecture to gather data from edge devices and alert users using Microsoft Azure resources.  
Developed test suite for enterprise Java web apps to integrate with Microsoft Azure CI/CD development.

Fall 2018 **Software Engineering Co-op, Plexus Corp.**  
Intern in the Software Group.  
Implemented integration test structure that utilized DDS protocol to communicate between software items.  
Validated medical device software as part of FDA approval process.

Summer 2018 **Firmware Engineering Co-op, AMD.**  
Intern on the Diagnostics and Tools team.  
Automated execution of system level tests and reported test results through web interface.  
Designed and implemented interface for reserving and offlining test systems.

Fall 2017 **Teaching Assistant, Rochester Institute of Technology.**  
Spring 2019 Head TA for Intro to Computer Engineering, Digital System Design I.  
Prepared lab exercises, graded lab work and reports, held weekly mentoring meetings and office hours.  
Recipient of RIT CMPE Fall 2017 Teaching Assistant Award.

Summer 2017 **Machine Learning Research Assistant, Rochester Institute of Technology.**  
Created an online monitoring system that takes sounds produced by different machining processes and labels them according to a classifier created by a support vector machine algorithm.  
Presented research findings at RIT Undergraduate Research Symposium.

## Projects

2018 **Morse Code Redundancy, [github.com/maddiemooney/mcr](https://github.com/maddiemooney/mcr).**  
Transmits and receives Morse Code using lasers and photoresistors.  
Designed circuit in PSpice, implemented transmitting and receiving algorithm in Arduino C.

2017 **WriteBot, [github.com/maddiemooney/writebot](https://github.com/maddiemooney/writebot).**  
Repurposing CD drives to create a mini CNC plotting machine.  
Rewrote the stepper motor library for Arduino, other functionality written in Arduino C and Python.

## Skills

Languages C#, Java, C, ARM/MIPS Assembly, Python, SQL.  
Tools/Misc Git, Microsoft Azure Cloud, Agile Development.