



# Heather Noonan

**Objective:** I am seeking a Software Engineering or Data Science Internship/Co-op for either Spring 2021 or Summer 2021.

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📄 noonanhe.github.io

🔗 linkedin/in/heathergnoonan

## EDUCATION

**BS Computer Science & BS Statistics** | *Michigan State University, Honors College*  
GPA: 4.0/4.0

May 2022

## TECHNICAL SKILLS

C++, Python, R, Java, MFC GUI, ARM Assembly, Linux, Shell Scripting, Object Orientated Program Design

## EXPERIENCE

**R&D Software Engineer Intern** | *EISEN Electric Corp.*

June 2020-August 2020

- Created a MFC dialog based GUI, as well as an underlying application in C++ that allowed for setup, calibration and reading of real-time data from a medical device.
- Developed a separate, doctor/nurse friendly, prototype GUI using a combination of MFC and GDI+ providing for only essential control and monitoring of the same medical device. This prototype was eventually going to be transformed into a Qt developed GUI for deployment on a touchscreen connected microcontroller running embedded Linux.
- Delegated and oversaw implementation of simple programming tasks to a coworker enabling a more efficient/effective work environment.

**Professorial Assistant** | *MSU Computational Bioinformatics Research Lab*

2018-2020

- Produced a pipeline of python and shell scripts for identifying and counting the number of unique bipartitions among tree replicates as part of the development process for a new inferencing algorithm.
- Authored and presented a research poster detailing a study I had conducted on the effects using different algorithms has on the interpretation of evolutionary relationships, specifically between European house mice.
- Discussed my work/findings in biweekly meetings to evaluate project progress and future directions.

**Student Athlete Tutor** | *MSU Student Athlete Services*

Fall 2019

- Tutored Student Athletes in various subject areas, including Calculus, C++ and Python.
- Learned how to break down problems into simple steps as well as how to explain the same material in a variety of ways for maximum comprehension.

## TECHNICAL PROJECTS

### Personal Website

- Launched my own personal website by teaching myself how to use Jekyll, GitHub Pages, GitHub's API and basic CSS/HTML structure.
- Built up my own blog as part of the website, complete with a comment section formed via utilization of Staticman and Heroku.

### Budgeting Analysis

- Designed an R Markdown file template that takes in a .csv file of financial transactions and produces an analysis of those transactions based on defined Income/Expenses categories in the form of an HTML document.
- Exercised my knowledge of the dplyr, tidyr, and ggplot libraries to create informative and easy to understand data plots. I constructed bar graphs for comparison across categories as well as line charts for tracking spending trends overtime.

## HONORS

Undergraduate Research and Arts Forum 1<sup>st</sup> Place Award  
Michigan State University Dean's List

Spring 2018  
Fall 2018-Spring 2020

## EXTRACURRICULARS

**Phi Sigma Rho** | Standards Board

2020-

**Society of Women Engineers** | Member

2018-

**Women In Computing** | Member

2020-