# Trevor R. McNeil

https://trevernever.github.io/

## PERSONAL


**Institution**
Virginia Tech
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## SKILLS

Proficient:

- **Java**
- **C/C++**
- **Python**
- **Microsoft Excel**

Intermediate:

- **MATLAB**
- **Web Development**
- **Linux**
- **Git**
- **Arduino**
- **LTSpice**

Familiarity:

- **Javascript**
- **Quartus**

## INTERESTS

- Programming
- Web Design
- Robotics
- Arduino
- Speaker Design
- Circuit Design
- Video Games
- Playing Instruments
- D&D

## OBJECTIVE

Looking to apply my skills and abilities to a controls and robotics or software engineering internship.

## EDUCATION

**Bachelor Degree in Electrical Engineering** — Class 2022
**Bachelor Degree in Computer Science** — Class 2022

## PROJECTS & LEADERSHIP

**Officer of the TRE club** — Fall 2020~

- Helping teach/design the lessons, create the club website, and planning more advanced club content.

**Designing a personal website** — Fall 2020~

- Published on **github** using only **HTML** and **CSS**.
- Learning more about **web development** to modernize the functionality and appearance.

**Programming with the Xbox 360 Kinect** — Fall 2020~

- Learning to use the Kinect's features for object tracking and object scanning.
- Planning on making a game and a program to render models of objects using the sensor input.

**Designing a Speaker at the AMP Lab** — Spring 2020~

- Working on **filter** and **power circuit** design.

## WORK EXPERIENCE

**Dining Hall - D2** — January 2019 - May 2019
Virginia Tech, Blacksburg VA

- Learned about customer service and interpersonal communication.
- Working a different position every shift, I learned to quickly adapt to any given situation.

**Engineering Internship** — Winter 2018 - 2019
Metalogix, San Antonio TX

- Worked through the **Research** and **Design** process.
- Edited reports and created **Excel** spread sheets.

**Music Instructor** — May 2018 - August 2018
School of Rock, San Antonio TX

- Learned to simplify information, and adapt to what the student needs.
- Worked individually with students 1-on-1 and in group settings regularly.

## COURSES

**Programming in Python (Python)**

- used canvas **API** to calculate and display grade averages based on course CRN.

**Problem Solving in CS (Python)**

- Learned about Web scraping. Making post and pull requests in Json format

**Software Design and Data Structures (Java)**

- Created a program that read survey data stored in an excel file, and displayed the data in a **GUI**. Data is several pages long, and lets the user select the sorting method.

**Computational Engineering (C++)**

- created a **C++** program to take flight commands from a text file and send them to a drone.

**Applied Software Design (C++)**

- Learning about **software design** in a **C++** context.

**Embedded Systems (C)**

- Created a videogame on the TI-MSP432 using **C** and learning **board architecture**.

**Intro to Computer Organization I (C)**

- Learning about **linux** operating systems and how to manage memory in program design.

**Integrated Design Project**

- Created a smarthome simulation using **arduino** controlled via a bluetooth connection with a phone app.

**Circuits and Devices**

- Learned many different ways to analyse and design **DC circuits**.

**AC Circuit Analysis**

- Learning about different AC elements, such as **transformers** and **zobel** networks, as well as how to design **AC systems**.

**Signals and Systems**

- Learned to process signals and design **filters**. Created a filter to remove a corrupt signal from an audio clip.

**Continuous and Discrete Systems**

- Learning about **filter design**, and how to realize transfer functions of systems.