# Dylan J. McCoy

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# **EDUCATION**

The University of Texas at Austin

Bachelor of Science in Electrical and Computer Engineering Honors

December 2020

GPA: 4.00

**Related Courses:** Algorithms, Software Design I & II, Digital Logic Design, Probability & Random Processes, Embedded Systems, Circuit Theory

#### WORK EXPERIENCE

#### Software Intern, MagnetoSpeed LLC

May 2018 – August 2018

- Diagnosed issues with existing products and implemented a new solution reducing velocity calculation error to ±0.1%
- Updated code and designed a device improving product testing efficiency by over 50%
- Fulfilled consumer requests for a wireless chronograph by implementing Bluetooth capabilities

#### Undergraduate Research Assistant, Microelectronic Research Center

September 2017 – April 2018

- Performed growth recipes of 2D transition metal dichalcogenides to optimize production
- Characterized growths by their optical and atomic structures
- Synthesized Molybdenum Disulfide through chemical vapor deposition

## **Undergraduate Teaching Assistant, UT Austin**

August 2018 – Present

- Taught recitation lectures for classes of 30+ students
- Collaborated with a team of faculty at weekly meeting and actively contributed new ideas on teaching
- Aided students through office hours and tutoring

#### PERSONAL PROJECTS

Pokemon Showdown April 2018 – May 2018

- A multiplayer turn based fighting game involving many unique Pokemon and attacks
- Developed, iterated, and demoed the game over a span of two weeks
- Placed in top 5 of the course-wide competition

# **Arduino Programming Project**

October 2017 – December 2017

- Explored and refined microcontroller programming to navigate mazes utilizing optic and haptic sensors
- Iterated over several program solutions, improving testing and debugging methods
- Designed, coded, and installed navigation and obstacle avoidance programs

# Fischertechnik Marble Sorter

March 2015 – April 2015

- Created a machine that automatically sorted marbles through differences in weight, size, and transparency
- Developed and tested multiple products, utilizing elements of the design process to improve efficiency and accuracy
- Collaborated with fellow peers in a team setting to produce the best possible product

#### LEADERSHIP EXPERIENCE

# **Communications Officer, Institute of Electrical and Electronics Engineers**

October 2017 – May 2018

- Managed and maintained social media presence through IEEE website and Facebook page
- Facilitated communication between the organization and over 200 members
- Created opportunities for members to interact with companies in a professional environment

# TECHNICAL SKILLS

**Languages** Python, Java, C++, C ARM Assembly

Web Development HTML/CSS

### INTERESTS AND ACTIVITIES

Volunteer: The Cavaliers Drum and Bugle Corps, Texas Children's Baptist Home, McNeil High School Band, National Honor

Society, Bands of America

Interests: Drum Corps International, Trumpet, Campus Ministry, Volleyball, Swimming