MATTHEW DIM

Computer Engineering

matthewdim30@gmail.com | (571) 455-6075 | Reston, Virginia

MDim0330 | MDim0330

SKILLS

Java | C/C++ | Python | CSS/HTML | Ruby | Vim | MatLab | Solidworks | Microsoft Office

LEARNING

Artificial Intelligence | Machine Learning | Computer Systems | Data Structures | Advanced Algorithms | Calculus | Lin Algebra | Differential Equations | Discrete Structures

Robotics | Controls

HOBBIES

Debate Team
- Wyoming Tournament Novice Champion
- Rutgers 3rd Place Speaker Award

REFERENCES

References provided upon inquiry

SCAN ME

ABOUT ME

Enthusiastic Computer Engineering Student eager to contribute to robotics and machine learning fields. Motivated to learn, grow and excel in a hardware or software related solutions.

EXPERIENCE

Software Engineer - Part-time | Sedna Digital Solutions

06/2022 – 12/2023 | Manassas, Virginia

- Programming in C/C++ to create and support signal processing tools for defense systems.

EDUCATION

M.S: Electrical and Computer Engineering | Virginia Tech

2023 – Current | Virginia

B.S: Computer Science | James Madison University

2019 – 2023 | Harrisonburg, Virginia

- GPA: 3.56
- Minor in Mathematics
- Minor in Robotics

RESEARCH

Center for Marine Autonomy and Robotics | Virginia Tech

Jan 2024 – Now | Blacksburg, Virginia

- Graduate Research Assistant for CAS and Hovercraft Projects
  - **CAS Project** is a collision avoidance system using a low beam forward-looking sonar for AUVs. I have been working with a research assistant at our lab to verify the safety of the system, and develop future methods of functionality. Additionally, I have rewritten code for the CAS system to run on a separate computer so that algorithms can be changed without impacting vehicle safety.
  - **Hovercraft project** is an autonomous air and water vehicle that we are creating controls systems to run unmanned and at an incline for the first time. I currently develop hardware and software for the system to run from the ground up.
  - **Both systems are supported by ROS libraries** and custom wrappers developed in lab that have been written by me and other students.

Autonomous Vehicle - JACart | |

01/2022 – 05/2023

- Paid Undergraduae Research Assistant - Robotics Operating System (ROS) Team Lead
  - Goals: Improve upon the collision avoidance of the vehicle
  - Integrated ZED cameras with LiDAR sensor for collision avoidance
  - Pose tracking with machine learning for passenger safety detection