

Timothy Renney

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Education

University of Michigan (May 2022)

Ann Arbor, MI

Bachelor of Computer Science Engineering

Minor in Music and Math

Relevant coursework: Software Engineering

Intro to Game Development

Intro to Machine Learning

GPA: 3.71

Experience

UM::Autonomy

AI Project Lead

September 2019 – Present - **Ann Arbor, MI**

- Co-lead project involving the use of neural networks for improved computer vision.
- Lead project involving combining the ZED Camera and Lidar data to create a universal dataset.
- Created and implemented algorithm to find center and front normal vector of dock from LiDAR data.

EMBiR Lab (Evolution and Motion of Biology and Robotics)

Research Assistant

October 2018 – Present - **Ann Arbor, MI**

- Wrote Python scripts that trains a neural network to generate snake masks for pattern analysis.
- Researched existing software to quantitatively compare snake patterns between choral snakes and mimics to increase knowledge of convergent evolution.

FIRST Robotics Team 5674

Programmer

December 2015 – May 2018 - **Eaton Rapids, MI**

- Programmed robots to place blocks on scales, place gears on pegs, and shoot balls in goals autonomously.
- Utilized cameras and vision processing software on the robot to increase accuracy for autonomous actions and improve range of view for the drive team by streaming two cameras at once.

Technical Skills

Programming Languages: C, C++, C#, Python, Java, MATLAB, R

Software: Linux, Git, gcc, Unity Game Engine, Anaconda, ROS, Blender, Microsoft Excel

Volunteer

Beta-Epsilon chapter of Eta Kappa Nu (HKN)

Member

January 2020 – Present - **Ann Arbor, MI**

- Volunteered for a Science Olympiad and technology support at a retirement home.

Awards

Eagle Scout Rank and Three Eagle Palms

September 2017

Winner of Fall EECS 183 Showcase Stryker Award

December 2018