

Ryan Hou

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EDUCATION

University of Michigan - Ann Arbor

Bachelor of Science in Engineering in Computer Science

Ann Arbor, MI

Aug. 2020 – May 2024

- Cumulative GPA: 3.958
- Relevant Coursework: Computer Vision, Intro Machine Learning, Data Structures & Algorithms, Computational Linear Algebra, Intro Logic Design

SKILLS

Programming Languages: C/C++, Python, MATLAB, Verilog

Tools & Libraries: Git, NumPy, OpenCV, ROS, LaTeX

Software: VS Code, Unreal Engine 4, Unity, Premiere Pro, Microsoft Office

Languages: English, Chinese, Spanish (Intermediate), Japanese (Elementary)

EXPERIENCE

Driver Assist Technology Software Intern

Ford Motor Company

May 2022 – Aug 2022

Dearborn, Michigan

Computer Vision Software Developer

UM Autonomous Robotic Vehicle Team

Sept 2021 – Present

Ann Arbor, Michigan

- Develop computer vision software for a highly functional autonomous robotic vehicle competing in the IGVC competition

PROJECTS

Baseball Tracker | Python, OpenCV

Apr 2021

- Detects and records baseball movement in a video by segmenting motion and color

Piazza Post Classifier | C++

Apr 2021

- Employed machine learning techniques to develop a program that automatically classifies subjects of Piazza posts

Office Hours Server Backend | C++

Mar 2021

- Built a small web server backend for an office hour queue

Tic Tac Toe with AI | C++, SFML

Dec 2020

- Tic Tac Toe game with GUI that allows users to play against computer AIs with multiple difficulties, including a hard difficulty utilizing the minimax algorithm

Content-Aware Image Resizer | C++

Feb 2021

- Resize images using seam carving algorithm to preserve meaningful content without cropping or scaling

HONORS & AWARDS

William J. Branstrom Freshman Prize | University of Michigan - College of Engineering

Fall 2020

- Awarded to freshmen who rank in the top 5% of the class

Deans' Honors List | University of Michigan - College of Engineering

Fall 2020 – Fall 2021

- Awarded to engineering students with high scholastic standing

University Honors | University of Michigan

Fall 2020 – Fall 2021

EXTRACURRICULAR ACTIVITIES

Assistant Baseball Coach | International School of Beijing

Mar 2021 - Jul 2021

- Instructed high school baseball players at the varsity level

Varsity Baseball Team Captain | International School of Beijing

Aug 2016 - Oct 2019

- Lead the varsity team and organized practices, workouts, and team events

Cinematographer for Filmism Studios | Beijing, China

Aug 2018 - May 2020

- Filmed and edited various promotional videos for school events and sport tournaments