

Profile	First-year student at the University of Michigan majoring in computer engineering. Particularly interested in studying control systems and artificial intelligence. Looking to gain more knowledge and experience in this field, and always eager to learn new skills.	
Education	University of Michigan, Ann Arbor, MI Bachelor of Engineering in Computer Engineering, GPA 3.9 Coursework: Programming and Data Structures, Logic Design, Discrete Math, Robotic Mechanisms, Calculus 1 & 2, Linear Algebra, Principles of Economics, Chemistry, Physics	<i>Expected April 2025</i>
	Northville High School, Northville, MI Diploma, GPA 3.96	<i>May 2022</i>
Experience	<ul style="list-style-type: none">Research Internship at University of Arkansas <i>Intern</i> Fayetteville, AR June 2021-January 2022<ul style="list-style-type: none">Conducted research with Professor Q. Li in the Department of Computer Science on a NSF sponsored machine learning project built to help detect cyber-security threats on Twitter.Developed machine learning algorithms using Python to detect specific words in tweets and determine if they were safe. Worked on data encoding and testing to determine algorithm efficiency.Last Stretch Food Delivery Robot: Employed a variety of skills to make an autonomous navigational robot to deliver food to rooms.<ul style="list-style-type: none">Applied a python image recognition program on an Arduino to enable the robot to recognize and detect humansCoded path tracking using color sensors facing a path on the floor, worked with tools to implement a dropping mechanism when robot reaches destination.MATLAB Radiation Treatment Program<ul style="list-style-type: none">Analyzed images of cancerous tumors in brain scans, used image processing to determine location, then planned out radiation beam paths for most efficient treatment.Vehicle Machine Learning Algorithm: program that assigned cars to a category based on its attributes<ul style="list-style-type: none">Developed and implemented a C++ program to intelligently classify different cars from a database by certain criteria. Used a k-means clustering algorithm to find centroids and group cars.Euchre: playable card game with a human player and AI bots.<ul style="list-style-type: none">Constructed a Card, Pack, and Player class, and wrote a main program to run the game.Used classes, virtual functions, polymorphism, and other OOP concepts in C++.Computer Vision Seam Carving Project: resizes images by determining the most/least significant pixels.<ul style="list-style-type: none">Converted images into a matrix and then calculate the importance of pixels to cut/stretch those accordingly. Able to resize any image to any size while preserving core details.Gained knowledge of C++ data structures and writing test cases.	
Course Projects		
Activities	UM Autonomous Robotic Vehicle Computer Vision Team: worked with edge-detection algorithm, image processing/refinement, and machine learning algorithm development Michigan Hackers Open Source Team: Worked on a Home Assistant project (Alexa alike).	
Skills	<ul style="list-style-type: none">C++, MATLAB, Python, Javascript, Verilog, Git, OOP, Windows OSCoursera Python Certificate: data structures, database, web, etc.	
Awards	<ul style="list-style-type: none">Michigan Dean's ListNational Merit FinalistRCM ARCT Piano Performer's Certificate, Level 10 Piano Certificate	