

Himaneesh Yerrakalva

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EDUCATION

University of Michigan – Ann Arbor

Bachelor of Science in Engineering

Major in Computer Science & Data Science

Cumulative GPA: 3.83/4.0; Dean's Honor List 2018-2021

Relevant Coursework: Data Structures and Algorithms; Advanced Intro to Operating Systems; Web Systems; Intro to Machine Learning; Software Engineering, Intro to Computer Organization, Intro to Computer Security, Linear Algebra

Ann Arbor, MI

Expected May 2022

EXPERIENCE

Atlas Digital Consulting Group (First technology consulting group at U-M)

VP of Internal Operations

Ann Arbor, MI

May 2020 – Present

- Maintain communication with club members via emails and weekly meetings to keep members informed with club-related news and reminders
- Facilitate logistical changes so that the club can remain fully operational in midst of the COVID-19 pandemic

Consultant

Sep 2019 – May 2020

- Provide technological solutions to local businesses in Michigan in a pro bono manner by making use of computer science experience and problem-solving skills
- Assisted a local restaurant through its rebranding process by designing a modern front-end for its website with the assistance of the Bootstrap framework for HTML, CSS, and JavaScript
- Implemented an SVM text classifier in scikit-learn and deployed it as an Apple Core ML model to determine relevance of news articles in an iOS news aggregator app

Ford Motor Company

Software Engineer Intern

Dearborn, MI

Jun 2020 – Aug 2020

- Developed a Python tool to parse and analyze QNX kernel event trace files
- Created new file format that allows trace data to be read 1200x faster than original format
- Identified top I/O bottleneck processes that degrade performance of the SYNC 4 infotainment system

Powertrain Controls Research Intern

Jun 2018 – Aug 2018, May 2019 – Aug 2019

- Supported automation of Hardware-in-the-loop (HIL) simulation with the dSPACE Scalexio system by using the ECU-TEST automation software
- Produced tool that speeds up ECU instrument creation in dSPACE ControlDesk using data from MATLAB Simulink

U-M Autonomous Robotic Vehicle (Formerly known as Intelligent Ground Vehicle)

Computer Vision Sector Lead

Ann Arbor, MI

Aug 2018 – Current

- Enabled autonomous robot to determine an optimal path based on input received by attached ZED stereo camera by utilizing C++ and CUDA based OpenCV libraries
- Integrated CV algorithms into ROS (Robot Operating System) running on Nvidia Jetson TX2

PERSONAL PROJECTS

Blue Bus Companion

Oct 2019 – Current

- Designed a Google Assistant app to be used by U-M students allowing them to use voice commands to retrieve information about nearby campus buses, with the help of the Dialogflow natural language processing framework
- Ensured delivery of real-time transit data to the user in a conversational format by writing Firebase cloud functions running on a Node.js backend that fetch data from the publicly accessible DoubleMap API provided by U-M

Light Strip Manager

July 2018 – Feb 2019

- Created a Raspberry Pi program that controls the power of attached LED strip depending on user presence in room which is inferred through the ability to ping the user's smartphone via Bluetooth, resulting in energy savings without manual intervention
- Enhanced this program by running a Flask server which controls master power of the LED strip depending on the type of HTTP request received and building IFTTT applets to interface with the Flask server via Google Assistant and home screen widgets, giving the LED strip IoT-like capabilities

TECHNICAL SKILLS

Programming Languages: C, C++, C#, CSS, Git, Go, HTML, JavaScript, Typescript, Python, MATLAB, SQL

Tools & Environments: Bootstrap, Flask, Git, Linux, Microsoft Office, Node.js, PyTorch, React, ROS (Robot Operating System), Virtualization, Windows