

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, Applied Parallel Programming w/ GPUs (In progress), Computer Vision (In progress), Mobile App Development (In progress), 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

Vail Systems

Chicago, IL

Software Engineer Intern

Jun 2021 – Aug 2021

- Developed a form builder web application using React for the frontend and NestJS for the backend to replace an inefficient process of form creation and editing which involved manual insertions into multiple database tables
- Implemented validations on both the frontend and backend to eliminate the possibility of bad data being submitted to the SQL Server database as a result of human error

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

Ann Arbor, MI

VP of Internal Operations

May 2020 – May 2021

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

Consultant

Sep 2019 – May 2020

- 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

Dearborn, MI

Software Engineer Intern

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 utilizing 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)

Ann Arbor, MI

Computer Vision Sector Lead

Aug 2018 – May 2021

- 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
- Led multiple training sessions and designed onboarding projects as part of a team effort to familiarize newer members with the different technologies used by the club

PERSONAL PROJECTS

Blue Bus Companion

- Designed a Google Assistant app allowing U-M students 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 Magic Bus API provided by U-M

TECHNICAL SKILLS

Programming Languages: C, C++, C#, CSS, CUDA, Git, Go, HTML, JavaScript, TypeScript, Python, MATLAB, SQL
Tools & Environments: AWS, Bootstrap, Flask, Git, Jenkins, Jira, Linux, Microsoft Office, Node.js, PyTorch, React, ROS (Robot Operating System), Virtualization, Windows