

HEMANTH S. KORALLA

614.717.5085 • hemanth.koralla@gmail.com • U.S. Citizen

OBJECTIVE

Software and computer engineer with a passion for healthcare robotics, autonomous vehicles, and advanced computing topics. Seeking a position to further increase my programming experience while developing a product to revolutionize this technology space and make tomorrow better than yesterday.

EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY, College of Engineering

Atlanta, Georgia

Bachelor of Science in Computer Engineering

May 2018

- Minor in Engineering & Business through the Denning Technology & Management Program
- Concentration: Systems and Controls, Robotics

GEORGIA INSTITUTE OF TECHNOLOGY, College of Computer Science

Atlanta, Georgia

Master of Science in Computer Science

August 2019 - Present

- Concentration: Computational Perception and Robotics

SKILLS

Programming: C++, Python, MATLAB (proficient)

Frameworks: Linux, Git, Robot Operating System (ROS), Jupyter Notebook, Atlassian Tool Suite

EXPERIENCE

GENERAL MOTORS

Warren, Michigan

Ultra Cruise Map Embedded Software Engineer for Autonomous Vehicles

October 2021 – Present

- Designing a tool to help visualize map data in a more lean and efficient manner with Apache Parquet
- Responsible for the integration of the map submodule into the greater Ultra Cruise system

Ultra Cruise Adaptive AUTOSAR Software Developer for Autonomous Vehicles

August 2020 – October 2021

- Analyzed and wrote Adaptive AUTOSAR specifications for the State Manager Function Cluster
- Created software for the State Manager to manage the states of various Function Groups

Ultra Cruise Map Data Tools Software Engineer for Autonomous Vehicles

August 2019 – July 2020

- Developed software to solve the high-definition mapping problem for autonomous vehicles
- Established a strong CICD cycle to ensure all software undergoes rigorous unit and system testing
- Led the design of software modules to detect and classify certain mapping features

Ultra Cruise Systems Integration Engineer for Autonomous Vehicles

August 2018 – August 2019

- Developed integration test cases for mapping and localization software teams
- Collaborated with system and software engineers to determine program requirements
- Automated parsing tools which analyze vehicle data recordings to validate software

GEORGIA INSTITUTE OF TECHNOLOGY

Atlanta, Georgia

ECE Senior Design Project: Underwater Swarm Robotics

October 2017 – April 2018

- Constructed four Tupperware and 3D-printed robots to successfully navigate under 3 feet of water
- Utilized computer vision on a Raspberry Pi 0 camera to enable each robot to locate neighboring robots
- Used IR sensors for short range communication between robots underwater to perform swarm configurations

LEADERSHIP

GENERAL MOTORS

Warren, Michigan

TRACK Advisory Board Website Lead

January 2020 – July 2020

- Managed a team of 8 software developers to create a manager/employee matching process
- Created an Angular/Node application on top of SharePoint to present a list of jobs for employees

GRAND CHALLENGES LEARNING LIVING COMMUNITY

Atlanta, Georgia

Founding Member and Developer / Energy Jackets

August 2014 – December 2017

- Collaborated with an interdisciplinary team to motivate homeowners about their energy waste
- Developed a prototype to enable the user to individually monitor the energy usage for each room of their home in real-time. Data is analyzed and displayed on a corresponding web-based application