

Education

University of California, Riverside **Sep 2022 – Jun 2023**
Masters of Science in Computer Engineering - GPA: 3.70

University of California, Riverside **Sep 2019 – Mar 2022**
Bachelors of Science in Computer Engineering - GPA: 3.75

Experience

Research Assistant **Mar 2023 – Jun 2023**
Riverside, CA **Center for Environmental Research & Technology**

- Developed the necessary software for communication with under 20 ms latency using C++
- Explored the capabilities of the Cohda Wireless MK6 OBU for Vehicle-to-Anything communication
- Successfully established communication between two OBUs to exchange CAN data and basic safety messages

Teacher Assistant **Jan 2023 – Jun 2023**
Riverside, CA **UC Riverside**

- Conducting weekly lab sessions to guide 100 students through C++ assignments
- Assisting students with coursework that includes the foundations of programming in C++
- Performing logistical tasks such as grading and answering student questions and concerns
- Received an average 92% evaluation rating from students for Winter 2023 and Spring 2023

Research Assistant **Feb 2021 – Jun 2021**
Riverside, CA **Computational Imaging & Machine Intelligence Lab**

- Investigating the utilization of different PPG/ECG biosensors to take cardiovascular measurements
- Analyzing the collected experimental medical data using Python and MATLAB
- Conducting experiments to explore different measurement techniques for optimization

Frontend Developer **Aug 2020 – Oct 2020**
Riverside, CA **MindTApp**

- Developing and designing the UI for the iOS & Android applications using the Flutter SDK
- Dynamically presenting data fetched from the Google Firebase cloud server
- Coordinating with the Backend team to structure the app in the most efficient way possible
- Assured the quality and compatibility of the UI was consistent on every device
- Assisted in successfully launching the application on the App Store and Play Store

Selected Projects

- **Motion Planning & Trajectory Generation with Turtlebot3**
Developed the necessary software in ROS to plan a path for the Turtlebot3 using the A* algorithm to avoid obstacles and hit the ball in the goal, and generate a trajectory using a PID controller to follow the path
- **Image Captioning using CNN + LSTM with Attention**
Collaborated with a team of 2 to develop a deep learning model combining an encoder Wide ResNet50 with a decoder LSTM with an attention layer to accomplish the complex task of image captioning
- **Smart Chessboard**
Led a team of 4 and designed the Flutter front-end and Python AI for the construction of a chessboard designed to enhance the playing experience using the on-board 192 LEDs and touch screen
- **BillBoard Top 100**
Collaborated with a team of 2 to develop a program that visualized the top 100 music charts, and created a K-Neighbors Regressor regression model that suggests the best tempo of a track given certain features

Skills

- **Programming Languages:** C, C++, Python, Java, MATLAB, JavaScript
- **Software:** ROS, Gazebo, Moveit, Linux, PyTorch, Pandas, TensorFlow, Keras, CMake, Shell Scripting
- **Technologies:** Deep Learning, Computer Vision, RTOS/RTES, Robotics, Intelligent Transportation Systems, Machine Learning, Data Mining