

EDUCATION

- **Carnegie Mellon University - School of Computer Science** Pittsburgh, PA
Master of Science in Robotic Systems Development May 2021
- **Birla Institute of Technology and Science, Pilani** Hyderabad, India
Bachelor of Engineering in Electrical and Electronics Jul 2016

COURSEWORK

- Computer Vision, Deep Reinforcement Learning, Introduction to Deep Learning, Robot Localization and Mapping, Manipulation Estimation and Control, Introduction to Robotics Business, Systems Engineering and Management for Robotics

PROJECTS

- **Traffic behaviour prediction for realistic simulation** Pittsburgh, PA
Ridecell and Carnegie Mellon University | Simulation Lead | Rotating Project Manager Sep 2019 - Present
 - Developing upon CARLA simulator (Unreal Engine 4) to support with smart actors (cars, pedestrians), where their behavior is more realistic and interactive based on real-world data.
- **EduSense | Practical Classroom Sensing at Scale** Pittsburgh, PA
HCII, Carnegie Mellon University | Research Assistant | Summer Research Assistant Jan 2020 - Sep 2020
 - Created 3D digital-twin of classrooms (instrumentation free) to provide 6DOF Gaze for students and the teacher in real-time.

PROFESSIONAL EXPERIENCE

- **Aitech Robotics and Automation Pte Ltd** Singapore
Robotics Engineer Apr 2019 - Jul 2019
 - Developed prototype of fully autonomous forklift (tricycle drive) using off-the-shelf packages like Google's Cartographer, in Robot Operating System(ROS) leading to a successful deal with the customer.
- **GreyOrange Robotics Pte Ltd** Gurugram, India
Embedded Engineer Sep 2016 - Feb 2019
 - Worked on marker-less navigation for a fleet of automatic guided vehicle (AGV) in shared space with humans.
 - Worked extensively on autonomous navigation algorithms to achieve sub-centimeter accuracies in AGV.
 - Developed algorithm for a low-cost 3D-dimensioning system with 5 mm accuracy.
 - Created a complete software-in-loop test automation framework for AGVs on Gazebo with ROS to reduce hardware dependency for testing.
- **Google Summer of Code Student with RTEMS** Remote
Student Developer May 2016 - Aug 2016
 - Added USB and Ethernet support to Raspberry Pi Board for a Real-Time Executive for Multiprocessor Systems (RTEMS) and developed Human Interface Device drivers.
- **Tonbo Imaging** Bangalore, India
Intern Jul 2015 - Dec 2015
 - Interfaced thermal camera system, laser sensor, and OLED Display with a media processor and developed user-firmware for thermal imaging monocular camera *Foxhound*.
- **MIT-Media Lab with Srujana Innovation Centre, L.V. Prasad Eye Hospital** Hyderabad, India
Intern Dec 2014 - March 2015
 - Developed a low cost wearable and modular headset platform called *Pupil+* for eye diagnosis which secured 3rd prize in BioAsia Healthcare Devthon.

SKILLS

- **Programming Languages:** C, C++, Python, Bash Scripting, MATLAB
- **Framework and Tools:** Git, OpenCV, Robot Operating System (ROS), Gazebo, RTOS, TensorFlow, PyTorch