Pruthvi Sanghavi

pruthvi@umd.edu | (240) 310 6614 | Github
https://www.linkedin.com/in/pruthvi-sanghavi/

Education

University of Maryland, College Park, Maryland
Masters of Engineering in Robotics — Anticipated: May, 2021

LDRP Institute of Technology and Research, Gujarat, India
Bachelors in Mechanical Engineering — Completed: May, 2019

Technical Skills

Computer Languages: C++, Python, JavaScript
Operating Systems: Linux, ROS (Robot Operating System)
Software Development: Version Control, Unit testing, Continuous integration, Iterative Software Development Processes

Experiences

Rezoom — *Supervisor: Dr. Derek Paley*
Research Assistant — January 2020 - Present
- Leading a team of 4 students in developing a self driving electric scooter.
- Developing high level decision making algorithms for autonomous behavior planning of electric scooters on sidewalks.
- Conceptualized and prototyping a self righting mechanism which helps in reducing sidewalk clutter due to e scooters.

Void Robotics — *Supervisor: Nathan George*
Robotics Engineering Intern — June 2020 - July 2020
- Packaged the navigation software and published it as an apt-repository to ease up the installation on linux systems.
- Developed a functionality to gain automatic permission for the USB ports without any inputs for Jetson Nano Processor.
- Fixed bugs in the original code base and sped up the runtime by 10%.

Projects

Sorting Algorithm Visualizer | Link — January 2021 - Present
- Developing a React App for the visualization of different sorting algorithms using JavaScript

Robot Path Planner | Link — March 2020 - April 2020
- Implemented Dijkstra Algorithm for path planning of a point robot and a rigid robot optimizing the runtime by 90%.
- Modeled a GUI to visualize the algorithm using python - matplotlib library.

TenezBot: A tennis ball collecting Robot | Link — October 2019 - December 2019
- Applied Agile Iterative Process to develop an algorithm to collect balls in the Gazebo environment using Turtlebot 2.
- Used Google Gtest Framework for Unit Testing, Travis CI for build, Coveralls for code coverage and Doxygen for documentations. Also ensured the quality by gaining a code coverage of 100%.

Air Water and Land - Surveillance Bot (AWL-SB) — April 2018 - December 2018
- Conceptualized, Designed and Prototyped a Spherical Surveillance Robot for National Defense Robotics Challenge.
- Coordinated with a team of three and registered a provisional patent for the robot.

Activities: National Science Foundation (NSF) - ICORPS (July 2020 - September 2020)