Pruthvi Sanghavi

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Education

University of Maryland — College Park, Maryland
Masters of Engineering in Robotics — anticipated: May 2021
Classes Taken: Software Development, Path Planning, Computer Vision, Robot Modeling, Linear & Nonlinear Systems, Statistical Pattern Recognition, Network Control System (Swarm Robotics)

LDRP Institute of Technology and Research — Gujarat, India
Bachelors in Mechanical Engineering — completed: May 2019
Classes Taken: Dynamics, Machine Design, Product Manufacturing, Thermodynamics

Technical Skills

Computer Language: C++, Python, Matlab, HTML and XML | **Other platforms**: Git, ROS (Robot Operating System)
Simulation Platform: Gazebo, Simulink, WeBots, Vrep, PyBullet, MUJOCO, Vissim, Anylogic, Unity, Robotarium |
Design: Autodesk Fusion360, SolidWorks, Creo Parametric | **Data Modeling**: Tensorflow, Pandas, keras |
Cloud Technologies: Google Colaboratory, Amazon Web Services | **Libraries**: OpenCV, Numpy, Matplotlib, Scipy

Technical Experiences

University of Maryland - Collective Dynamics and Controls Lab (CDCL) — ***Supervisor: Dr. Derek Paley***
Research Assistant - REZOOM (**Self Driving Scooter Startup team**) — ***Jan. 2020 - Present***
- Working on the design and fabrication of a Self Righting Mechanism appendage for two wheeled vehicles.

National Science Foundation - ICORPS — ***Supervisor: Dr. Derek Paley***
Entrepreneurial Lead — ***June 2020 - September 2020***
- Conducted 33 interviews of the professionals in the shared electric scooter industry to collect insights and developed a scalable business model canvas.

NewMind Robotics — ***Supervisor: Nathan George***
Robotics Engineering Intern — ***June. 2020 - July 2020***
- Developed an application to connect and control an autonomous robot outside the wifi range.

Indian Space Research Organization
Summer Research Intern — ***Jan 2019 - May 2019***
- Applied ML techniques for the analysis of remote sensing data of the Indian rivers.

Projects

Machine Learning: Face Recognition**;** Digit Recognition **| Computer Vision:** Lane Detection**;** Optical Tracker **|**
Motion Planning: A Star Algorithm**;** Dijkstra Algorithm **| Control Systems:** LQR-LQG Design

Patent Disclosure: Surveillance Robot | Self Driving Scooter | Self Righting Mechanism | Handle grip covers