**Neet Mehulkumar Mehta**

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**EDUCATION**

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| **Worcester Polytechnic Institute (WPI)** | **Worcester, MA** |
| *Master of Science- Robotics Engineering, GPA- 3.66/4.00* | *Dec 2022* |
| **Nirma University** | **Ahmedabad, India** |
| *Bachelors in Mechanical Engineering, GPA- 7.8/10.00* | *May 2020* |

**KEY SKILLS**

* **Programming Skills**: C++, Python, MATLAB
* **Tools and Libraries**: ROS, Gazebo, OpenCV, CARLA simulator, Simscape, Simulink, Git, Solidworks, ANSYS, Blender 3D.

**WORK EXPERIENCE**

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| **Institute for Plasma Research (IPR)**  *Research Intern* | **Gandhinagar, India**  *Jan 2020 – May 2020* |
| * *Developed a fully working model 5-DOF serial manipulator on an omnidirectional platform for inspection of Tokamak reactor that can be controlled by VR setup.* | |

**RESEARCH EXPERIENCE**

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| **Cognitive Medical Technology (COMET) Lab, WPI** | **Worcester, MA** |
| **Learning the Kinematics of Notched-Tube Continuum Wrists** | *Sept 2021 - Present* |
| * *The objectives of this project are:* * *To investigate the use of machine learning algorithms to model the kinematics of notched-tube continuum wrists.* * *To compare learning-based models with traditional mechanics models in terms of accuracy and computational complexity.* * *Depending on the quality and the novelty of the findings, it will be possible to submit the written material to a scientific venue for publication.* | |

**ACADEMIC PROJECTS**

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| **Self-driving car simulation in CARLA simulator** | *Feb 2021 – May 2021* |
| * *Implemented Autonomous Left-Right turning for the autonomous agent using Bezier curves in CARLA using python API.* * *Implemented Adaptive Cruise Control for the autonomous agent in CARLA.* * *Implemented Autonomous overtaking in low-traffic conditions for the autonomous agent in CARLA using python API.* * *Personalized the turning experience by changing the radius of curvature of the turn.* | |
| **Design and Simulation of a Quadruped Robot in different gaits and environments** | *Feb 2021 – May 2021* |
| * *Developed a simplified CAD model of the quadruped using Solidworks.* * *Developed Kinematic and Dynamic model of the quadruped using different approaches.* * *Formulated different gaiting sequences (eg: walk, trot, gallop).* * *Developed control architecture for all the legs of the quadruped.* * *Simulated different gaiting operations of a quadruped in a user-defined environment in Simscape™.* | |

**EXTRACURRICULAR ACTIVITIES**

* **Teaching Assistant:** Assisted professor in organizing two graduate-level courses in Summer ’21.
* **Publicity Volunteer:** Gathered the highest number of students from other universities for national level Tech-Fest ‘Praveg ’18.