Neet Mehulkumar Mehta

Worcester, MA | nmehta@wpi.edu | +1 (774) 253 7865

EDUCATION

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

Institute for Plasma Research (IPR) — **Gandhinagar, India**
Research Intern — *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.*
- *Developed Kinematic and Dynamic model of the robot.*
- *Simulated the robot in ANSYS.*
- *Worked with 3D Printing technologies to develop a prototype.*

RESEARCH EXPERIENCE

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

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.