

To Whom it May Concern:

I am happy to write this letter of recommendation for Mr. Dikshant Shehmar. He is an active member of my research group, working on a robotics project since April 2020.

Dikshant wanted to explore the field of robotics and took the lockdown situation to gain his experience. He is working on a project involving self-driving cars to patrol an area. He is contributing to several aspects of the project. His primary task is to design a multi-agent patrolling algorithm using the Deep Q Network Reinforcement Learning technique. He is making satisfactory progress in his assigned work. He is also assisting others in the group.

The project involves open-source simulators SUMO, ROS, and Webots. Dikshant has been assisting others in the group working on these simulators. He applied Conscientious Reactive patrolling architecture for reducing idleness using the Traci library with SUMO. He had formulated an algorithm that will allow an autonomous vehicle's smooth movement on any curved road and junctions. He created an interface between ROS and Webots for designing a controller for a car on a given map. He planned an appropriate path for avoiding static and dynamic obstacles while maneuvering on the map. These highlights two qualities - his capability to pick up new problems very fast, and secondly, he is a great team player.

Dikshant is a self-motivated student. He is working on this project, which is beyond his academic requirements. He has the capability to work independently. He delves deep into a problem to analyze it. I am sure he can contribute significantly to any project he takes up in the future. I will be happy to answer any queries on him and his work.

Yours sincerely,



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