HyperDrive: Autonomous Self Driving Car in an Urban Setting using Deep Reinforcement Learning

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Student's Declaration

We declare that this project titled "*HyperDrive: Autonomous Self Driving Car in an Urban Setting using Deep Reinforcement Learning*", submitted as requirement for the award of degree of Bachelors in Computer Science, does not contain any material previously submitted for a degree in any university; and that to the best of our knowledge, it does not contain any materials previously published or written by another person except where due reference is made in the text.

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The Department of Computer Science, National University of Computer and Emerging Sciences, accepts this thesis titled *HyperDrive: Autonomous Self Driving Car in an Urban Setting using Deep Reinforcement Learning*, submitted by Syed Asad Zaman (p18-0034), and Sana Haider (p18-0011), in its current form, and it is satisfying the dissertation requirements for the award of Bachelors Degree in Computer Science.

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Abstract

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Introduction

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1.1.1 my subsection

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Chapter 2

Review of Literature

This chapter provides a comprehensive literature review of the related work to blah blah

Chapter 3

Review of Literature

In past few years deep reinforcement learning become a very focus topic due to its success in games like Atari games, GO and chess. Specially after the success of the project AlphaGO[3] in 2016 and AlphaZero[2] in 2017 by Google DeepMind reinforcement learning become a hot topic. Besides, a fairly recent project known as AlphaFold[1] is used to predict the protein structure has open doors for reinforcement learning to be applied on more complex real world problems like goal-oriented autonomous self-driving in a complex dynamic dense environment that includes route planning also. From the review of following research papers the authors has came to conclusion that there is not any neural network or reinforcement architecture modeled in CARLA yet that has addressed the problem of route planning in dynamic dense urban environment

Chapter 4

Conclusions and Future Work

conclusions here

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