Project Title :

Problem Statement : Briefly describe what challenge are you trying to deal with.

 Introduction : Introduce the topic.

 Objectives of Proposed Solution : Distinguished features.

 Feasibility : Market, Technical, Financial

 H/w S/w Requirements :

**Implementation Approach :**

**Design and Analysis of System :**

**Screenshots :**

**Market Opportunity :**

**Future Scope :**

**Link for Source file on Google drive:**

Project Title : Creating a self-driving agent in an open world game

Project Statement: Scripting a learning model for an independent agent in Grand Theft Auto V that tries to force the agent in the game to limit itself between the lanes of a road.

Introduction

GTA V is a massive open world game with vehicles, lanes and well –rendered visuals. Using python, we have generated a driver script and a learning model for a self- driving agent. This means that the agent tries to identify the lanes on a road, and tries not drift away from the path of the road and maintains itself between the edges. This is a rudimentary model that will take hours of training, so we have created a proof of concept.

Objectives:

Interact with a game using Python

Send commands to the game using Python

Create an agent and control its movements

Use image processing to detect the lanes on the road

Create a mathematical model that calculates the gradient and curvature of the road

Create movements for the agent to follow the model – which means the agent follows the road without any human intervention.

Feasibility:

Market: Gives an opportunity to test self-driving agents in a simulated reality.

Technical: Moderate technical skills required.

Financial: No financial burden.

Hardware:

Any computing machine capable of running moderate training scripts and the game.

Software

Python environment to run the scripts

Design and Analysis of System



