

# **Project Proposal: 3D Traffic Racing Simulator**

## **Game Overview**

The 3D Traffic Racing Simulator is a straight-road racing simulation developed using Python and PyOpenGL. The player controls a car on a never-ending straight road and must avoid randomly generated traffic vehicles to survive as long as possible. As the game progresses, speed and traffic density increase, making gameplay more challenging.

## **Game Features**

- Straight never-ending road using translation-based motion
- 3D player car with rotating wheels
- Randomly generated traffic vehicles
- Player controls: W/S for speed, A/D for movement
- Dynamic third-person camera system
- Scoring system based on avoided cars
- Increasing difficulty over time
- HUD displaying score, time, and speed

## **Cheat Mode**

- Collision immunity mode that prevents game over when enabled

## **Extra Features**

- Car color customization at start and during gameplay
- Limited reset system with three chances to prevent instant game over