Ahmedabad University

CSE541:- Computer Vision

Weekly Report - 1

Section Number - 1

Group Name:- Good Pointsss

Submitted to faculty: Prof. Mehul Raval

Date of Submission: 11/02/2023

Student Details

Roll No.	Name of the Student	Name of the Program
AU2040101	Rajan Nanda	BTech CSE
AU2040111	Kenil Shah	BTech CSE
AU2040215	Yesha Dhivar	BTech CSE

2022-2023 (Winter Semester)

Safe Driving

1. Tasks performed during the week
    a. We did some research on what drowsiness actually is. Drowsiness while driving is a significant safety concern on the roads. It is a common phenomenon that can lead to serious accidents, especially for long distance drivers or people who work long hours or night shifts. Drowsiness is a state of mind where the driver loses focus and concentration, and their reaction time slows down, leading to delayed responses to potential hazards on the road.
    b. In our research on drowsiness while driving, we came across a few research papers that proved to be very helpful in understanding the issue in-depth. One of the best research papers we referred to was titled "Real-Time Driver Drowsiness Detection using Computer Vision" by Mahek Jain, Bhavya Bhagerathi, Sowmyarani C N. This paper focused on using various machine learning techniques to detect driver drowsiness accurately. The research presented in this paper provided us with valuable insights into the different approaches we could use to detect drowsiness while driving.
    Link:- https://www.ijeat.org/wp-content/uploads/papers/v11i1/A31591011121.pdf
    c. After conducting extensive research, we finalized the dataset that we would be using for our research. We selected this dataset as it provided us with a comprehensive understanding of the factors that could cause drowsiness while driving and would be helpful in training our machine learning algorithms.
    Link:- http://mrl.cs.vsb.cz/eyedataset

d. During our research, we gained insights into the essential factors required to achieve more accurate results in detecting drowsiness while driving. So, we could develop an effective algorithm that could accurately detect drowsiness while driving and help prevent road accidents.

2. Tentative tasks to be performed in the upcoming week
    a. The first task is cleaning the dataset, which involves removing irrelevant or duplicate data, correcting errors, and ensuring the data is properly formatted and structured.
    b. The second task is understanding the dataset, which involves analyzing the data to gain insights into its characteristics and identifying any patterns or trends that may exist.
    c. As part of our project planning, we have identified that we need to perform some research and learning related to the libraries required for our project. Specifically, in the upcoming week, we have scheduled time to conduct research and learn about the different libraries that we need to use in our project. This will involve reviewing documentation, tutorials, and other resources to gain a comprehensive understanding of the libraries' functionalities and how we can use them effectively in our project.