Ahmedabad University

CSE523 : Machine Learning

Section No.: 1, Group No.: 5

"Identifying hard stop & momentary stop detection"

Weekly Report-6

Submitted to: *Prof.* *Mehul Raval*

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Weekly Report : Week 6

Summary:

In Week 6, our team focused on optimizing the accuracy and putting more focus on detecting moving vehicles, after successfully detecting hard and momentary stops with good accuracy. Now we are going to cluster them using various clustering algorithms.

Optimizing Accuracy:

Our primary objective was to fine-tune the accuracy of our model. We employed various techniques, including feature engineering, preprocessing, and model evaluation, to ensure optimal performance. Notably, the utilization of spatial-temporal features and the integration of machine learning algorithms facilitated us in achieving notable accuracy improvements.

Focus on Moving Vehicles:

Recognizing the importance of identifying moving vehicles, we directed our efforts towards enhancing this aspect of our model. By refining feature extraction techniques and employing sophisticated machine learning algorithms, we aimed to bolster our ability to accurately distinguish moving vehicles from stationary ones.

Clustering Analysis:

Moving forward, our focus shifted towards clustering the detected vehicles using a range of clustering algorithms. This step is crucial in gaining deeper insights into the underlying patterns and dynamics of vehicle movement. By applying clustering techniques, we aim to uncover distinct groups within the data, thereby enabling more refined analysis and decision-making.

Conclusion:

In conclusion, Week 6 marked a significant milestone in our project journey. By prioritizing accuracy optimization and focusing on the detection of moving vehicles, we laid the foundation for advanced clustering analysis

Github Repository Link:

Hard-Stop-and-Momentary-Stop-Detection-System