**CSE541: - Computer Vision**

**Weekly Report - 2**

**Section Number – 1**

**Group Name: - string the\_boys;**

|  |  |
| --- | --- |
| **Name** | **Enrolment Number** |
| Mohsinali Vijapura | AU2040080 |
| Manan Vadaliya | AU2040264 |
| Pruthviraj Dodiya | AU2040175 |
| Harshrajsinh Vaghrola | AU2040195 |

**Road sign recognition system**

Task performed during the week:

* Researching existing approaches and algorithms for road sign detection using computer vision.
* Collecting a dataset of road sign images and annotating them with labels to use for training and testing.
* Implementing a convolutional neural network (CNN) model for road sign detection and training it on the annotated dataset.
* Evaluating the performance of the model using metrics such as accuracy, precision, and recall.
* Fine-tuning the model and experimenting with hyperparameters to improve its performance.

Outcomes of the task performed:

* Successful implementation of a CNN model for road sign detection that achieved high accuracy on the test dataset.
* Identification of strengths and limitations of the model and potential areas for improvement.
* Improved understanding of computer vision techniques and deep learning concepts.

Tasks to be performed in the upcoming week:

* Collect additional road sign images to expand the dataset and improve the model's ability to generalize to new data.
* Experiment with different CNN architectures and hyperparameters to further improve performance.
* Investigate approaches for detecting multiple road signs in a single image.
* Explore methods for visualizing the learned features of the model to gain insights into its decision-making process.
* Write up the results and conclusions of the project for presentation or publication.