**Traffic Sign Classification**

A machine learning Project used to detect Road Signs using CNN with the help of TensorFlow

Need of the project:

Enhance the recognition of sign boards and take necessary actions by the smart vehicles.

Aid humans to recognize the sign boards in case they miss the same while driving.

Help non-native drivers recognize the sign boards.

Facilitate drivers focus on their driving more than searching out for instructions from the sign boards.

Identification of the traffic and taking appropriate action is crucial for an automated vehicle. This system will assist drivers by recognizing traffic signs which they did not recognize before passing and will save them from miss happenings.

To solve this problem, we are using Deep Learning, specifically Convolutional Neural Network (CNN).

This problem has two aspects, first is feature extraction i.e., extracting relevant features from the traffic sign images and second is image classification, which includes classification of an image to its corresponding class based on the extracted features.

You can run this by opening the command prompt on the directory in which you have saved the file and then write the command “python traffic\_signs\_classifier\_gui.py” and press enter. After which the it will open up and there will be a button which ask the user the upload the image of the traffic sign it wishes to classify, the user can then enter the image from the directory it is saved in and click the button classify which classifies the image and gives the result

This project was developed by our Team for 5th semester Machine Learning Subject

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