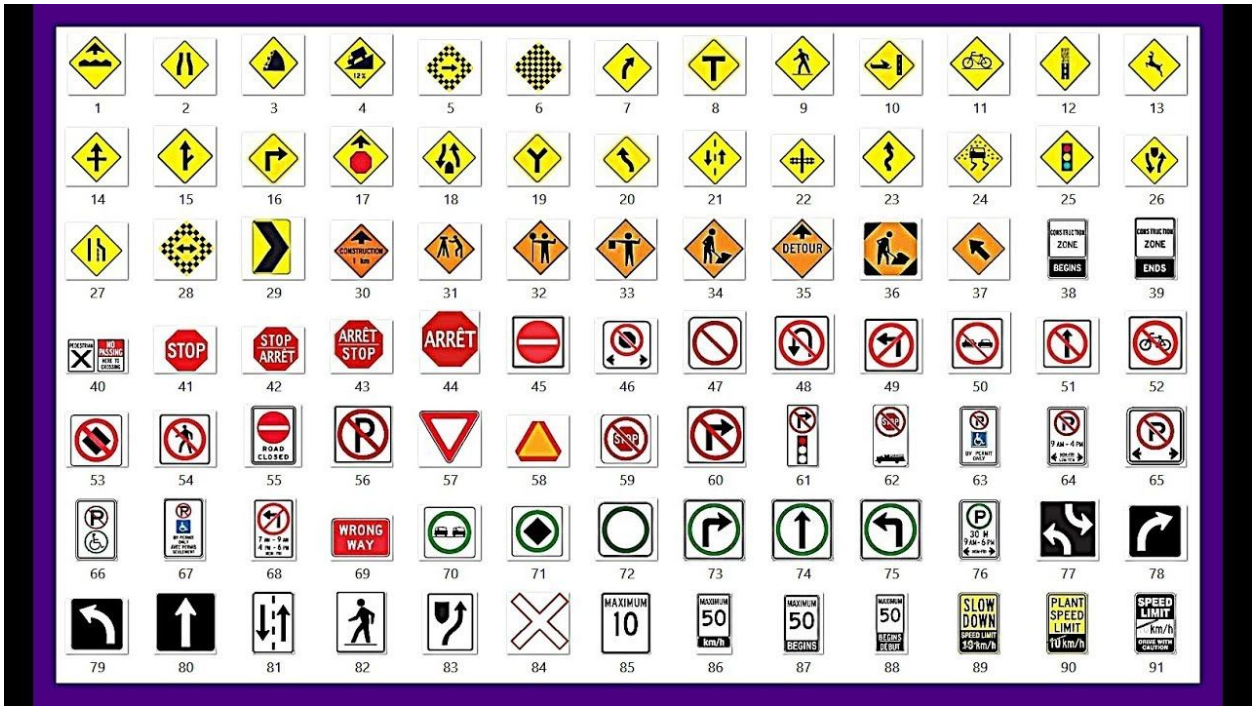

Image Classification of Traffic Signs

10.02.2019

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MAIS 202

FALL 2019

Goal and Dataset

The goal of this machine learning project is for my model to learn how to classify traffic signs from the dataset "Traffic Signs Preprocessed" from the following link: https://www.kaggle.com/valentynsichkar/traffic-signs-preprocessed. I chose this dataset because the images contained in this dataset are already preprocessed. Thus, I won't have to do any preprocessing before training my model.

Methodology

I. Data Preprocessing

As previously said the dataset I am going to be working with already contains preprocessed images of various traffic signs. Each (.pickle) file in the dataset have different preprocessing such as gray scale for instance.

II. Machine Learning Model

The model I will use will be doing supervised learning. Moreover, it will be a classification model. The goal of this classification model will be to classify images of traffic signs such as speed limits, bumpy roads, no entry, etc. From a given image of a traffic sign the model will return which traffic sign is on the image if there is one

III. Final Conceptualization

In the end, I will try to integrate my AI into a web app. This web app will contain information about the model, algorithms used and the dataset used. Moreover, in the web app the user will be able to input an image and then the model will say what traffic sign the image contains. I will be using the django library in python to create the web app.