Classifying German Traffic Signs

Project 1 Report

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Course: Machine Learning

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Abstract

This project makes use of the German Traffic Sign Recognition Benchmark (GTSRB), a dataset composed of images of traffic signs (one per image) in several illumination, weather, obstruction, distance and rotation conditions. In this project we use the GTSRB dataset to train several classification algorithms and study how each one performs.

This report will start by describing the dataset and the work that was done to prepare it for further use, will continue, then, talking about the models we used and how we trained and optimized them and will finish with our conclusions.

Contents

1 Data

1.1 Data Description

Here goes a bit about the data we used. Include some examples of images as data visualization.[1]

1.2 Data Preprocessing

Talk about the data preprocessing, as well as the shuffling of data.

2 Models

2.1 Used Models

Talk about the 3 used models. LogisiticRegression, SVC and MLPClassifier. Mention the skleanr documentation pages.

2.2 Model Training and Hyper-Paramenter tunning

Talk about the training and optimization of models.

2.3 Training results

Show plots and information on training results for each model. Compare the results

3 Conclusions

Conclusions here

Acronyms

GTSRB German Traffic Sign Recognition Benchmark

References

[1] *GTSRB - German Traffic Sign Recognition Benchmark*. URL: https://www.kaggle.com/meowmeowmeowmeowmeow/gtsrb-german-traffic-sign.