Project 2

Computer Vision

German Traffic Sign Recognition

Multi-class, single-image classification

Objective

Create a CNN model to recognise german traffic signs.

Dataset

The German Traffic Sign Benchmark is a multi-class, single-image classification challenge held at the International Joint Conference on Neural Networks (IJCNN) 2011. They cordially invite researchers from relevant fields to participate: The competition is designed to allow for participation without special domain knowledge. Their benchmark has the following properties:

- Single-image, the multi-class classification problem
- More than 40 classes
- More than 50,000 images in total
- Large, lifelike database

Note: You can check the "Meta" folder for getting information about the classes.

Steps & Approach

- Split the dataset into training and validation (75% training / 25% validation)
- Define model
- Get validation accuracy more than 90%

Details about questions and marks are given in the question notebook.

Note: If the model is taking too much time to get trained then you can reduce the number of classes. There are around 43 classes in the dataset, the model should be trained on a minimum of 15 classes.

Support

You can raise a support query on Olympus for support. **Happy Learning!**