

Task 5: German Traffic Sign Classification

In this task, you are going to create a CNN-based classifier for German Traffic Signs (GTSB) dataset using **Keras**.

Note: All descriptions required should be written inside the python notebook file. Use the starter python notebook file provided in this repository.

Training pipeline:

- **Preprocessing:** The submission describes the preprocessing techniques used and why these techniques were chosen.
- **Model Architecture:** The submission provides details of the characteristics and qualities of the architecture, including the type of model used, the number of layers, and the size of each layer.
- **Model Training:** The submission describes how the model was trained.
- **Minimum Requirements:** Accuracy on the validation set should be 0.93 or greater.

Testing:

- **Acquire New Images:** The submission includes five new German Traffic signs found on the web, and the images are visualized. Discussion is made as to particular qualities of the images or traffic signs in the images that are of interest, such as whether they would be difficult for the model to classify.
- **Performance on New Images:** The submission documents the performance of the model when tested on the captured images. The performance on the new images is compared to the accuracy results of the test set and the top five softmax probabilities of the predictions on the captured images are outputted. The submission discusses how certain or uncertain the model is of its predictions.

Submission deadline is **Friday 22th of April by midnight**.