

MLDL2 Assignment 4

(Due Date: Dec 20, 11:59PM)

- Transfer Learning

Please use the attached code `transfer_learning.py` to run experiments with the codebase we used in the previous assignment. Complete the code to train a classification model for the **cifar100** dataset.

(a) First, train a model from scratch without using a pre-trained model. For example, run the following command for it (without using `--fname`).

```
python transfer_learning.py --dataset cifar100 --num_samples 1 --epoch 500 --lr 1e-3 --lr_step cos
--method contrastive
```

(b) Next, train a model by using the pre-trained model from the previous assignment. That way, we are reusing the feature extractor part of it and adding a new classifier (header) on top of it for the cifar100 dataset. For example, run the following command for it (use `--fname`).

```
python transfer_learning.py --dataset cifar100 --num_samples 1 --epoch 500 --lr 1e-3 --lr_step cos
--method contrastive --fname PUT_PATH_OF_YOUR_MODEL_DATA
```

(c) Compare results from (a) and (b) by using **wandb** to visualize them and make some conclusions based on it.