

Summary of the tutorials 1, 2 and 3

Benjamin Seeger

Tutorial 1

Performed some calculations with numpy and finally calculated parameters of the net, such as `learning_rate`, `prediction_loss`, etc. Defined the network, set the parameters, inserted the layers and defined the architecture of the network. Then loaded the MNIST dataset. Finally, the defined network was trained with the MNIST dataset so that different layers, etc. could be tested.

Tutorial 2

To begin with, loaded the cat and dog dataset and created directories for the cat training and validation data and for the dog training and validation data respectively. Afterwards, all images were rescaled to the same size. The pre-trained model was then prepared, and a classification layer was added. Finally, the added layer was trained based on the existing model.

Tutorial 3

In the beginning, the architecture and motivation of a U-net was explained. After obtaining the data via GitHub clone, the U-net architecture could be implemented and defined. Since there are not enough objects in the loaded data set, a remedy was found in the form of a few layers for data expansion. Finally, the model could be trained and tested.