Exercise 5 in Computer Vision: Deep Learning
Discussion on 11/25/2019 10.00 am – 12.00 am (NB 3/57)

Implement and train a fully connected and a convolutional neural network to solve MNIST and CIFAR-10 with at least 95% and 45% test accuracy, respectively. Compare the number of parameters and the training time. Use (basically) the same architectures for both datasets. As the number of pixels per image in both datasets differ, you may change the number of neurons in the input layer (fully connected) or the first fully connected layer (convolutional).

You may find the following functions from tensorflow useful:

`tensorflow.nn.conv2d` — implements a convolutional layer with a given number and size of trainable filters `tensorflow.nn.max_pool` — implements a maxpooling layer with a given window size and stride

In both operations put `padding='SAME'`.