CS691: Fundamentals of Deep Learning

Programming Assignment III

Date: April 22, 2020
Tentative Deadline for submission of PDF file of report: Friday, May 29, 2020

Datasets:

1. Image classification data set

(1) Image classification using a MLFFNN with Deep CNN features for an image as the input to the MLFFNN, with (a) VGGNet as Deep CNN and (b) GoogleNet as Deep CNN.

(2) Image classification using a CNN with CL1, PL1, CL2 and PL2 as the layers. Use kernels of size 3x3, stride of 1 in the convolutional layers. Use mean pooling with a kernel size of 2x2 and stride of 2 in the pooling layers. Use 4 feature maps in CL1 and 16 feature maps in CL2.

(3) Image classification using the CNN in Part (2) above, with NetVLAD layer after PL2. Use the value of K =4 in the NetVLAD.

Report should include details of experimental studies, results, observations and analysis of results.