Assignment #2 (100 points)

Object Classification

Due on 2nd April (Mon) 23:59

Implement a convolutional neural network for object classification on PASCAL VOC 2007 dataset. For the task description, dataset, and evaluation toolkit, refer to http://host.robots.ox.ac.uk/pascal/VOC/voc2007/ .

You are allowed to use a part of any network pretrained on ImageNet dataset for 1000 categories, and fine-tune your network on the target train set. Use the validation set for hyper-parameter tuning, and reserve the test set for your final evaluation. Do an adequate analysis on your results for a good grade.

You may find useful pretrained models for Pytorch or Tensorflow available online.

Note that evaluation needs to be properly done based on the standard protocol of PASCAL VOC 2007 classification challenge.

* Submission instruction

1. Your solutions should be submitted to the LMS webpage in a single zip file with the filename: A2_LastName_FirstName_StudentID.zip. This zip file should contain: (i) a PDF file A2_LastName_FirstName_StudentID.pdf with your report; (ii) the source code used to generate the results (with code comments), along with a demo script that runs the code for each part of the assignment in turn.
2. The report should be no more than 2 page and include the table showing the performance of your model. For the report, use the latex template downloaded from http://cvlab.postech.ac.kr/~mcho/class/2018S_CSED703B/latex_template.zip.
3. Make sure that your code is ready to run using a single command. Include readme.txt file for the instruction.