CoE202 Homework 3: CNN Classification for CIFAR10

Due 11:59pm, May 20th, 2021

1. Overview

This third assignment is to implement CNN Classification for CIFAR10(pytorch).

You should work on an assignment using Google Colab.

For those of you who are not familiar enough with Pytorch, there is an official tutorial which explains how to use Pytorch.

https://tutorials.pytorch.kr/

2. Programming Details

There are two (training, test) ipynb files. For the training file, you should define the classification CNN. If necessary, you may change any training hyper-parameters and schemes (i.e. optimizer, weight initialization, learning-rate scheduler, etc.).

After finishing the training, in the test file, you should define your model to load weights and your transformation in Dataloader part.

The final model should achieve 93% accuracy for the test dataset in the test file.

3. Grading Policy

A. Criteria

If the final model achieves 93% accuracy for the test dataset, 100% score will be given. We will give you the partial grading according to the accuracy of your model.

In addition, you should explain your implementation at the end of the .ipynb file (4 questions). We made a space for you to write at the end of the .ipynb file (without exact reasoning, no points will be given).

B. Plagiarism Alert

Be aware of plagiarism! TAs will compare your and other student's source code. If you violate academic conduct, probation or suspension can happen according to the KAIST school regulation article 59 and 60.

https://ee.kaist.ac.kr/en/node/15401

4. Submission (Important!!)

4.1 After implementing, save your colab session (with output) and you have to download ipynb file from Google colab.

```
[ko] 구글 코랩에서 [파일] - [.ipynb 다운로드]
[en] from Google colab, [File] - [Download .ipynb]
```

4.2 If the downloaded file has .txt extension, you have to change the extension to .ipynb by simply renaming it.

```
You can rename file by press [F2], if you can't see it,
[ko] 파일 탐색기에서 [보기] - 표시/숨기기 칸의 [파일 확장명] 체크 (on 으로)
[en] from File Explorer, [View] - check [File name extensions] in Show/hide
```

4.3 You have to submit one ipynb file. Before you submit, please rename it as follows.

```
CoE202_HW3_20223456_Gildong_Hong.zip
        | -- CoE202_HW3_training_code.ipynb
        | -- CoE202_HW3_test_code.ipynb
        | -- checkpoint.pth
```

5. Late Submission Policy

We will **NOT** accept works that are submitted after the due date.

6. Updates/Announcements

If there is any update or error in the assignment, it will be announced on the notice board of KLMS. Please check the notice board of KLMS frequently.

7. Extra Notes

A. It is your own responsibility to read this README carefully. Submissions that do not comply with the guideline may **NOT** be graded.

B. If you have any questions, please use KLMS Q&A board. We will not reply to an email unless it's a private question.

C. After implementing codes using Google Colab, you should save the output. DOUBLE CHECK if the output is saved.

D. All outputs must be reproducible. If your code does not run on Google Colab (which TAs will check), your grade may be deducted.