CECS 551
Assignment 7
Total: 40 Points

General Instruction

- Submit uncompressed file(s) in the Dropbox folder via BeachBoard (Not email).

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1. Find the cifar-10 data set. There are 50,000 training images (data_batch_x) and 10,000 test images (test_batch).
2. (10 points) Using your neural network of classifying mnist data set (assignment 6), classify cifar-10 data set and report the test accuracy.
3. Design covolutional neural networks to classify cifar-10 images using `keras` library.
   (a) (10 points) Submit `html` and `ipynb` files which include your source code.
   (b) (5 points) Report the best network design and its test accuracy.
   (c) (15 points) Visualize the filters in the first convolution layer.
4. Submit a `pdf` file which includes all reports and visualization.
5. (Extra points) Based on the best test accuracy of each group, Rank #1 group will receive extra 5 points and Rank #2 group will receive extra 3 points.