Assignment #3 - Image Sentiment Classification

重要事項宣佈

- 投影片連結 https://docs.google.com/presentation/d/1--dkZZjJNbYiN-BJ4rmPxJbbJcEEg6u9FwJ_ZeiFGIU/edit#slide=id.p
- Kaggle 連結 https://www.kaggle.com/account/login?ReturnUrl=%2Ft%2F09478bd1f6fa4fd8869a3cf4cb70cce0
- Deadline: 2017/11/16 11:59 P.M. (GMT+8)
- 11/09 為超過 Kaggle simple baseline 的加分截止期限
- 在做 P4 及 P5 時，請大家先看過這個關於 visualization 的 tutorial

In this assignment, you will practice using Deep Learning libraries to experience the power of Neural Net.

The requirements of this assignment are as follows:

P1: Build Convolution Neural Network (1%)

[Accuracy] Build CNN model, and tune it to the best formance as possible as you can.

Record your model structure and training procedure.

P2: Build Deep Neural Network (1%)

[Accuracy] Using the same number of parameters as above CNN, build a DNN model to do this task.

Record your model structure and training procedure. Explain what you observed.

P3: Analyze the Model by Confusion Matrix (1%)

[Analysis] Observe the prediction of your validation data(10% ~ 20% of training data is OK).

Plot the prediction into confusion matrix and describe what you observed.

P4: Analyze the Model by Plotting the Saliency Map (1%)

[Analysis] Plot the saliency map of original image to see which part is important when classifying

P5: Analyze the Model by Visualizing Filters (1%)

[Analysis] Use Gradient Ascent method mentioned in class to find the image that activates the selected filter the most and plot them.

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