SEASONS OF CODE 2024

Sentiment Analysis and Text Generation using Many-to-One LSTMs

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Week 4 - Assignment

In this week we will complete the Sentiment Analysis part of the project. Hope that you have loaded the dataset and done the pre-processing. This week's task include:

- We have provide you with a python file `Assignment4a.py`. This file is for you to create and train the LSTM model. Your task is to copy the python file block-wise to the Jupyter Notebook file where you did last week's code as a continuation, and complete the TODO's. We recommend you to wisely distribute the codes in different cells so that it easy for you to debug and test.

- We will share another python file later this week with TODOs to make predictions on Live IMDB Dataset. For that you are required to save the model you create and use it to make predictions. More details will be share with that python file. Again, as above copy this continuously to the notebook and complete the TODOs.

- In order to complete this week's task, we are not providing you with any additional resources. You may refer to the BOOK we have provided in Week 2. Check `Week 2` folder for more details.

- **Submission**. Complete the TODO's as a continuation in last week's notebook and submit it. Make sure you continue in the same notebook. We shall test your code just using that notebook, so it should include your code in WEEK 3 and WEEK 4.

  The deadline for submission is **30.06.2024, Sunday EOD.**

- **Important**. This weeks submission is crucial for the first part of the Project. If you fail to do the right submission in the right time, no credits for this part.

- **Report**. As told you in the beginning we expect you to submit a small report enlisting the work you have done. So mention in your reports the various hyper-parameters (like batch size, no of epochs, no of layers, etc) you have chosen for this part, and your reasoning behind it. You need not submit the report now.

- **Optional**. In the code we have given we train the model using LSTMs alone. Try training it with simple RNNs, i.e without LSTMs, and compare the performance. Note down the differences in your report, and explore possible reasons for this. This part is optional and left to you as a choice.

We shall move to the **Text Generation** part in the next week.