July 9

1. Compile links to everyone's public facing GitHub repository
2. Quick vignette on using pycharm
3. Response
   1. What is TF Hub? How did you use it when creating your script for "text classification of movie reviews"?
   2. What are the optimizer and loss functions? How good was your "text classification of movie reviews" model?
   3. In "text classification with preprocessed text" you produced a graph of training and validation loss. Add the graph to this response and provide a brief explanation.
   4. Likewise do the same for the training and validation accuracy graph.
4. Project 1 - Use OpenCV to detect social distance violations. Complete the steps found at the following link on the pyimagesearch website.
   1. https://www.pyimagesearch.com/2020/06/01/opencv-social-distancing-detector/
   2. Complete exercise down to "OpenCV social distancing detector results"
   3. You can read beyond (into the "limitations and future improvements" section) and consider this part for you final project, but it's not needed to complete Project 1
   4. Replace the video provided in the social distance detector folder with one of your own videos and run the following command from your terminal (found at the end of the section **OpenCV social distancing detector results**)

```
time python social_distance_detector.py --input
pedestrians.mp4 \
--output output.avi --display 0
```

   5. Be sure to choose a video that has images of people walking and/or congregating in a pubic place. It doesn't have to be a lot of people, could just be in and around your house, or a view of a public pedestrian path. Videos that are taking from at least a slightly elevated angle will work better.
   6. Upload your output to GitHub, create a link to a new Page and answer the following questions
      1. Was your social distance detector effective at detecting potential violations?
      2. Do you think this approach would be effective for estimating new infections in real time? How would you implement such an approach in response to the COVID-19 pandemic we are currently experiencing?
      3. What limitations or improvements might you include in order to improve your proposed design?
   7. Stretch goal (**not required as part of your grade** for Project 1 but you are welcome to do it if you would like to continue with an additional step for this project)
   8. Also use OpenCV to detect face masks by completing the steps found at the following link on the pyimagesearch website.
      1. https://www.pyimagesearch.com/2020/05/04/covid-19-face-mask-detector-with-opencv-keras-tensorflow-and-deep-learning/
   9. Include your results for this stretch goal in your GitHub Pages website — do you think implementing a face mask detector could add value to a social distancing detector?