Programming Assignment #3

T81-559: Applications of Deep Neural Networks, Washington University October 25, 2016

This programming assignment lets you try your hand at a [Kaggle] competition. Kaggle allows academic institutions to create competitions of their own for classes. This special part of Kaggle is called "Kaggle in Class." These special competitions do not count towards Kaggle ranking. They are simply a means of allowing instructors to create machine learning assignments that allow students to try out the Kaggle site and learn.

The Kaggle competition can be found at the following URL:

https://inclass.kaggle.com/c/wustl-t81-558-washu-deep-learning-fall-2016

For this assignment you should complete the following steps:

1. Register with the Kaggle website and create an account. You may use either your real name or an alias.
2. Visit our class competition and download the data files. Refer to the class notes for information on the structure of a Kaggle competition.
3. The competition provides you with a sample submission for this project. Submit the sample submission as your own. It is only a sample, you will not get a very good score from Kaggle.
4. Create a basic neural network, do not use any advanced training algorithms (such as Adam). Generate a submission file and submit it to Kaggle. Your score should improve considerably from the sample submission.
5. Try more advanced training settings. Try to get a better score than your previous two submissions. The most likely path to a better score is using a more advanced training algorithm or setting other neural network parameters.
6. This is an optional step. Feel free to play with it and make some additional submissions. Do you think that you might be able to get one of the top scores in the class?
7. The rules of Kaggle apply for this assignment. You are given a max number of submissions a day. You are also allowed to form teams.
8. In blackboard submit a text/word file that gives me a link to your Kaggle account profile and the name/alias that you used in Kaggle. For example, this is my Kaggle profile page.