ANLY 601 Final Project Proposal

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2. Topic Choice: Sentiment Analysis

3. Scope Detail

3.1 Topic Selection

I am going to read papers relate to sentiment analysis under https://paperswithcode.com/task/sentiment-analysis, in particular, I want to focus on this paper, https://arxiv.org/pdf/1704.06125v1.pdf, which explores neuro network techniques such as recurrent neural networks (RNN) and convolutional neural network (CNN) to detect sentiment of tweets.

3.2 Use of Pre-existing Methods

This paper has reference to code. The code in the reference is a tutorial of build neural networks for text classification using Python and it uses a different dataset other than tweets. I will not use the code presented in the tutorial. Instead, I'm going to use TensorFlow and Keras packages to reproduce the neural network presented in the paper and train the neural network using the dataset that this paper used.

4. Dataset

I will use the same dataset used in the paper, SemEval-2017 Twitter dataset. This dataset was used in a sentiment classification competition in 2017 and it is publicly available. I'm going to use this dataset to reproduce the model presented in the paper and I also want to compare performances of neural network against other popular sentiment analysis tools such as Afinn and VADER.

5. Project Submission

I will do a class presentation to present my results.