	Ideal Score	Shen Yang Team: YS Score	Instructor Notes
Total Points	10	9.4	Score Points:09.40
Total Percentage	100	94	
Exceptional Work: Required 7000 Level: Use t-SNE (or SVD) to visualize the word embeddings of a subset of words in your vocabulary. Try to interpret what each dimension reflects (in your own words). That is, try to explain what aspect of the language is encoded in the reduced dimensionality embedding.	10	10	Research participant
Define and prepare your class variables. Use proper variable representations (int, float, one-hot, etc.). Use pre-processing methods (as needed). **Describe the final dataset that is used for classification/regression** (include a description of any newly formed variables you created).	10	10	
Choose and explain what metric(s) you will use to evaluate your algorithm's performance. You should give a detailed argument for why this (these) metric(s) are appropriate on your data. That is, why is the metric appropriate for the task (**e.g., in terms of the business case for the task**). Please note: rarely is accuracy the best evaluation metric to use. Think deeply about an appropriate measure of performance.	10	10	
Choose the method you will use for dividing your data into training and testing (i.e., are you using Stratified 10-fold cross validation? Shuffle splits? Why?). Explain why your chosen method is appropriate or use more than one method as appropriate. **Convince me that your cross validation method is a realistic mirroring of how an algorithm would be used in practice**.	10	10	
Investigate at least two different recurrent network architectures (perhaps LSTM and GRU). **Be sure to use an embedding layer** (pre-trained, from scratch, or both). **Adjust hyper-parameters of the networks as needed to improve generalization performance**.	20	17	Looks like you need a good deal more dropout to prevent overfitting to the data. I would recommend increasing the recurrent and input dropout to 0.5 and running for more epochs.
Using the best RNN parameters and architecture, add a second recurrent chain to your RNN. **The input to the second chain should be the output sequence of the first chain.** Visualize the performance of training and validation sets versus the training iterations.	20	17	Same. Needs to be run for a few more epochs.
Use the method of cross validation and evaluation criteria that you argued for at the beginning of the lab. Visualize the results of all the RNNs you trained. **Use proper statistical comparison techniques to determine which method(s) is (are) superior.**	20	20	