

Natural Language Processing - IMDB Movie Review								
	Description	Hyperparameters	Number of Epochs	Training Loss	Training Accuracy	Test Accuracy	Comments	
Part 3a	Given Model	Seq_length = 100 Hidden_Unit = 500	75	3.923	25.23	28.17		
Part 3b	Generated Review	Temperature 0.25					a lot of the movie is a bit of a shameless . the acting is n't bad , but the story is n't that good . the story is n't very good , but the story is just list stupid . the acting is terrible , the story is stupid and the acting is poor . the plot is so bad it 's funny . the acting is bad . the plot is stupid . the acting is bad . the plot is so stupid that you could not even laugh at it . the acting is bad . the plot is stupid . the acting is horrible . the acting is horrible . the story is bad . the acting is bad . the plot is stupid . the acting is horrible . the only thing that i can say is that it is a good movie . i would	
	Generated Review	Temperature 0.5					i i love this movie . it is great to see a movie that is so great . i love it!!!!!!!!!!!!!!!!!!!!!!!!!!!! !! !!!!!!!!!!!!!!!!!!!!	
	Generated Review	Temperature 1.0					a she was real in this role and oh anywhere . wow ... an one where i know how played batman next unfortunate yes , the flies segments food , hunting jill hangs the same lights of the bull experiences , the built is creepy enough these guys like the human son jack put up things gets to kill while watching everything huge fun . unfortunately , painted this movie without having to gets top enduring does n't done well . actors john trees and welcome poignant are annoying ! miss van piano did an outstanding job and left a lot to be airport - and i 'm usually disappointed . that three old boys are loosely not bad enough !!! weller lets me of that satisfied passion in silence street) and you just wish for him when you only love an hour instead of land a wacky	
Part 3c	Given Model	Seq_Length =100 Hidden_Unit = 500 Vocab_Size = 8000	25	0.1984	92%	91.05 (with seq_length = 500)		
	Custom 1	Seq_Length =200 Hidden_Unit = 500 Vocab_Size = 8000	20	0.1174	95%	90.7 (with seq_length = 500)	I increased the sequence length. By doing so, we increased the complexity of the model. The model now shows a mild symptom of overfitting as the gap in training accuracy and the testing accuracy widens.	
	Custom 2	Trained with all param transferred vocab_size = 8000 num_hidden_units = 500 seq_length = 100	25	0.0487	98%	84.19 (with seq_length = 50)	I transferred all parameters learned from the LSTM layers in 3a. The performance definitely indicate overfitting model. I am unsure why this is the case.	