

Question 1 (RNN)

(a)

1132: consumers

93: may

358: want

5: to

329: move

51: their

9836: telephones

6: a

326: little

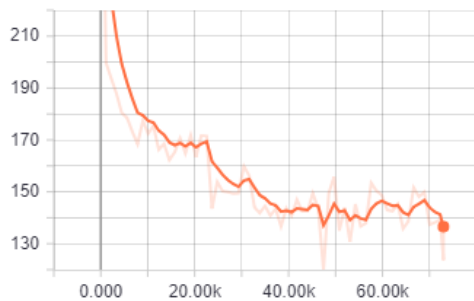
2476: closer

consumers may want to move their telephones a little closer

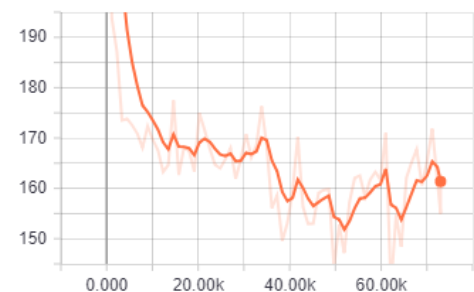
(note: I wrote this in python 2.)

(b)

Train/Training_Loss



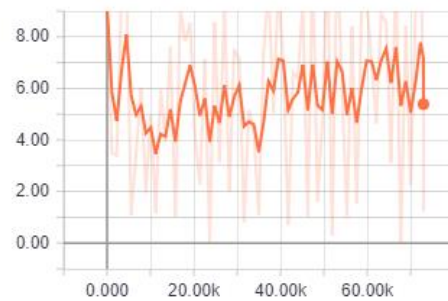
Valid/Validation_Loss



The model doesn't overfit nor underfit. The training loss keeps decreasing and the validation loss also keeps decreasing before end.

(c)

Test/Test_Loss



The test loss doesn't decrease significantly as the validation loss and training loss decreases. It means that the model doesn't have a significantly well generalization ability although it doesn't overfit. The test loss stops decreasing after $\frac{1}{3}$ of total iterations. It means that the total number of iteration is more than required.

(d)

money for managers value.**midnight** in month tomorrow.

strong restructuring investment mental demand profits demand average results automotive growth.

message to mexico.**company** 's site from chairman inc.

(e)

north korean american executive airlines

laboratory american city <unk> ground.

wall street street street falls.**truth** and failed.**california** and spokesman and earthquake

savings-and-loan and october earthquake wyoming

michigan san florida san killing <unk> delegation

assembly earthquake.

health care care.