

COMP9444 Assignment 2 Report

learning rate

learning rate	accuracy
0.0001	79% (continue grow)
0.001	81%
0.01	81%
0.1	could not converge in training

I think a good learning rate should be between 0.0001 and 0.1. I pick 0.01, because it trains faster than 0.001.

number of hidden unit

No. of unit	accuracy
16	79%
32	82.6%
64	82.3%
128	81%

I pick the highest accuracy one, which is 32 hidden units.

Model

Model	accuracy
LSTM	82.6% (13s / 100 iteration)
GRU	82.8% (20s / 100 iteration)
BIO-LSTM	81.0% (40s / 100 iteration)

since the performance is similar, I pick LSTM because it trains faster.

Other

I have tried to increase MAX_WORDS_IN_REVIEW to 200, or increase BATCH_SIZE from 128 to 1250. Training became much slower, but accuracy does not improve much.