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HW3 CSE597

Q1 .

As expected, the random initialization had the worst result (testing accuracy of 0.46) as no progress could be made over the epochs in the downstream task since there was no information stored in the embeddings.

Both GloVe embeddings and the NL generated embeddings performed well on the downstream task getting well over the 70% required accuracy although the accuracy fluctuated in the range of 0.72 – 0.74. The GloVe embeddings were a little more stable through the epocs. The embeddings trained on the smaller dataset (100 reviews) had higher accuracy but that may be down to overfitting.

Q2.

The set of Loss functions tested were NLLLoss, L1Loss, and MSELoss. The NLLLoss function resulted in the least aggregate loss at the end of the final epoch. L1Loss performed the worst. There was no discernable difference in the runtimes when using the different loss functions and so, NLL was determined to be the best suited one.