

Milo Davis

CS 4435

April 4th, 2020

Project 2 Report

a)

Neural Network – Multilayer Perceptron

| | | | | |
|-----------------------|-----------|--------|----------|---------|
| Classification Report | | | | |
| | Precision | Recall | f1-score | support |
| accuracy | | | 0.74 | 7532 |
| Macro avg | 0.74 | 0.73 | 0.73 | 7532 |
| Weighted avg | 0.75 | 0.74 | 0.74 | 7532 |

Runtime: 496.7281665802002 s

Support Vector Machine

| | | | | |
|-----------------------|-----------|--------|----------|---------|
| Classification Report | | | | |
| | Precision | Recall | f1-score | support |
| accuracy | | | 0.59 | 7532 |
| Macro avg | 0.59 | 0.57 | 0.57 | 7532 |
| Weighted avg | 0.59 | 0.57 | 0.57 | 7532 |

Runtime: 75.1466920375824 s

b) The feature size I used for the neural network and SVM algorithm was 52,140. The same size as the bag of words.

c. The library I used for the neural network and SVM classifications was **Scikit Learn**.