

Multinomial Naive Bayes:

NOTE: Picking the alpha which gives the best f1-score.

MODEL 1	Recall	F1	Precision	Accuracy
50 words alpha=1e-3	91.70%	91.30%	90.97%	91.32%
100 words alpha=1e-3	92.69%	93.50%	94.45%	93.62%
500 words alpha=1e-6	89.77%	92.74%	96.25%	93.14%
1000 words alpha=1e-6	88.69%	92.16%	96.29%	92.63%
3000 words alpha=1e-3	89.72%	92.16%	95.01%	92.51%

MODEL 2	Recall	F1	Precision	Accuracy
50 words alpha=1e-3	92.31%	93.56%	94.96%	93.71%
100 words alpha=1e-3	91.35%	93.25%	95.45%	93.49%
500 words alpha=1e-6	89.35%	92.41%	96.08%	92.84%
1000 words alpha=1e-6	88.56%	92.02%	96.12%	92.50%
3000 words alpha=1e-3	90.29%	92.23%	94.50%	92.52%

MODEL 3	Recall	F1	Precision	Accuracy
50 words alpha=1e-3	91.74%	93.63%	95.83%	93.87%
100 words alpha=1e-6	90.78%	93.33%	96.29%	93.64%
500 words alpha=1e-6	89.20%	92.59%	96.64%	93.04%
1000 words alpha=1e-3	89.53%	92.03%	94.98%	92.40%
3000 words alpha=1e-3	90.60%	92.52%	94.76%	92.80%