Random Forest:

Model 1: criterion = 'entropy' for all.

MODEL 1	Recall	F1	Precision	Accuracy
50 words n_e = 100	93.83%	94.71%	95.93%	94.85%
100 words n_e = 1000	94.20%	95.53%	97.02%	95.64%
500 words n_e = 1000	92.73%	95.02%	97.63%	95.22%
1000 words n_e = 1000	91.83%	94.37%	97.34%	94.64%
3000 words n_e = 1000	90.58%	93.57%	96.76%	93.82%

Model 2: criterion = 'entropy' for all; n_e = 1000 for all.

MODEL 2	Recall	F1	Precision	Accuracy
50 words	93.83%	95.23%	96.83%	95.30%
100 words	93.87%	95.44%	97.09%	95.66%
500 words	92.40%	94.76%	97.51%	95.01%
1000 words	91.65%	94.15%	97.08%	94.43%
3000 words	90.62%	93.30%	96.63%	93.63%

Model 3: (criterion, n_estimators)

MODEL 3	Recall	F1	Precision	Accuracy
50 words (gini, 100)	93.34%	95.14%	97.26%	95.27%
100 words (gini, 1000)	93.28%	95.19%	97.49%	95.39%
500 words (gini, 1000)	91.61%	94.41%	97.30%	94.65%
1000 words (entropy, 1000)	91.35%	94.01%	96.97%	94.26%
3000 words (entropy, 1000)	90.38%	93.25%	96.46%	93.59%