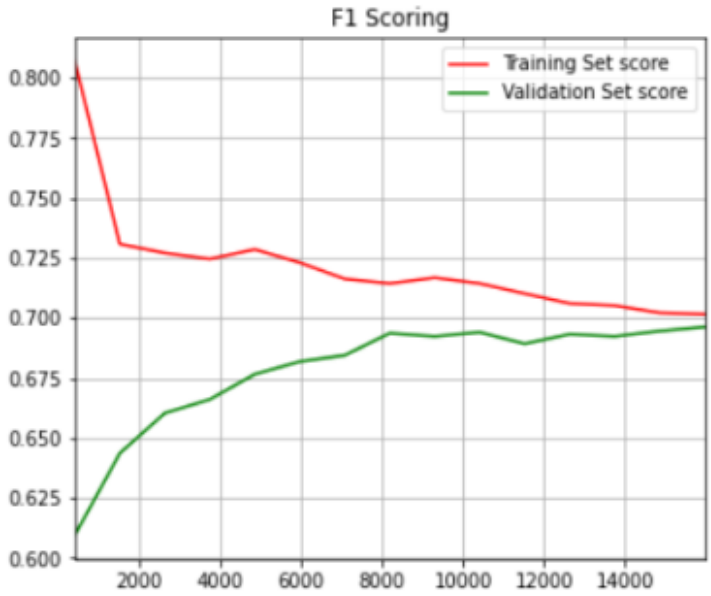
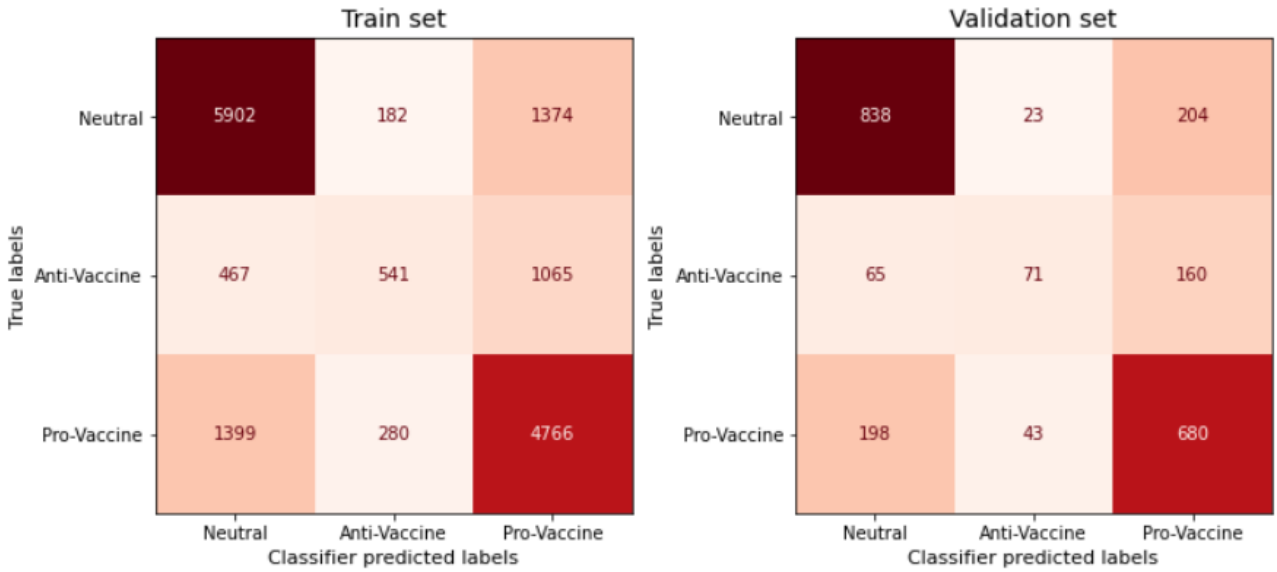
TFIDF Vectorizer

- `min_df`, `max_df`, `ngram_range`

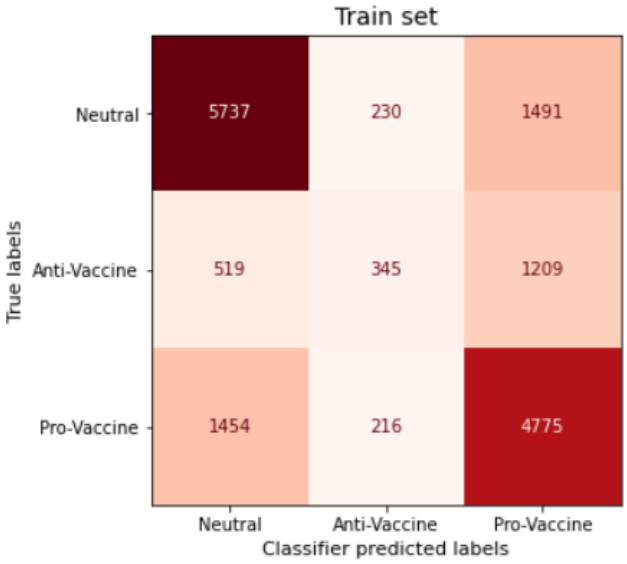


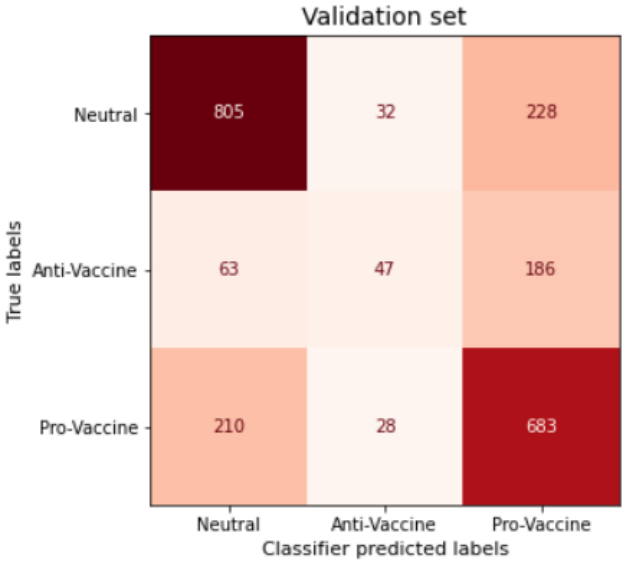
	F1	Precision	Recall
Train	0.7016	0.6536	0.5973
Validation	0.6963	0.6436	0.5883



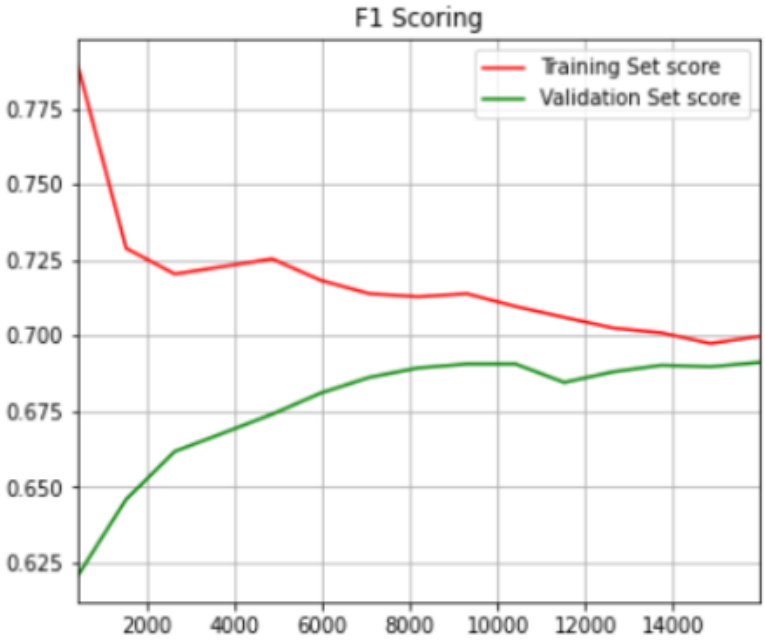
- `min_df`, `max_df`, preprocessing, stop words

	F1	Precision	Recall
Train	0.6796	0.6064	0.5589
Validation	0.6727	0.6029	0.5521

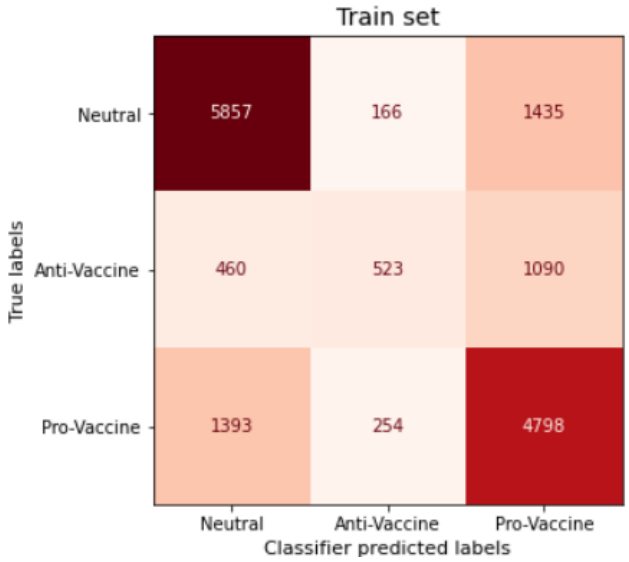


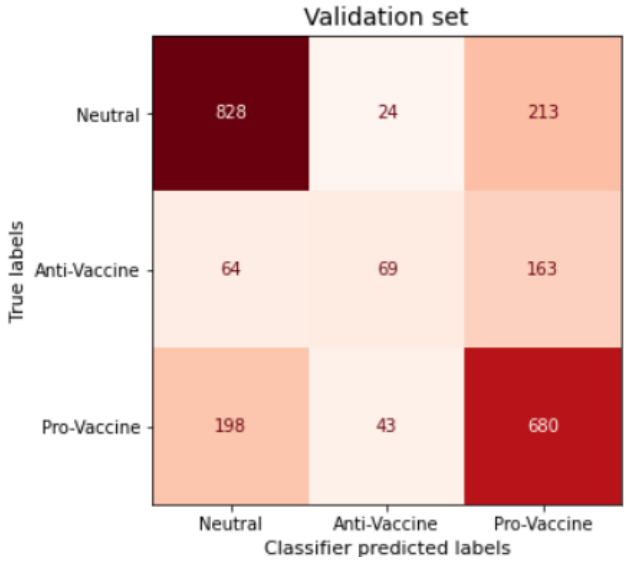


- `min_df`, `max_df`



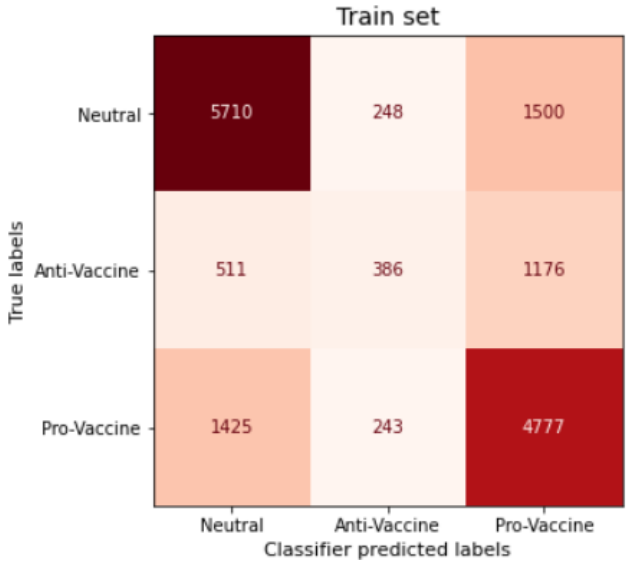
	F1	Precision	Recall
Train	0.6997	0.6565	0.594
Validation	0.6911	0.6370	0.583

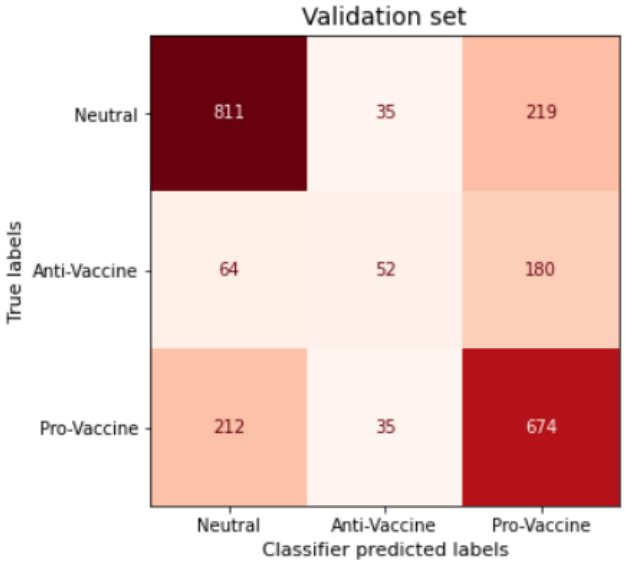




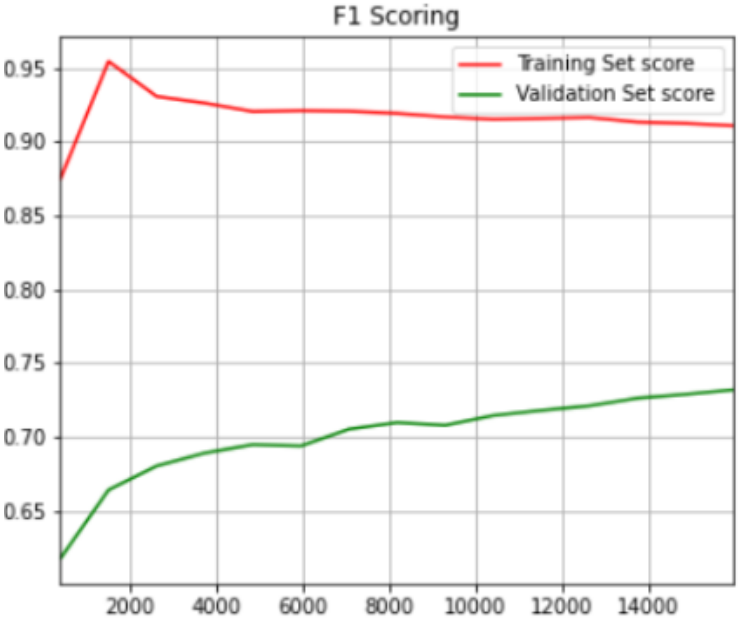
- `min_df`, `max_df`, preprocessing, stop words, `ngram_range`

	F1	Precision	Recall
Train	0.6806	0.6093	0.5643
Validation	0.6735	0.6002	0.5563

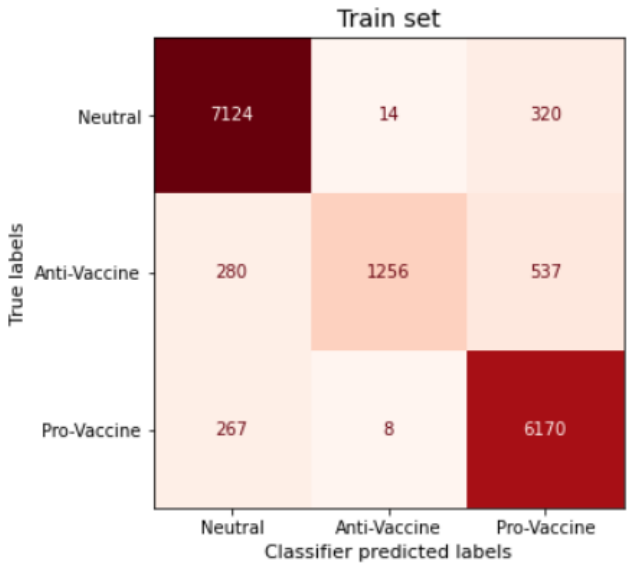


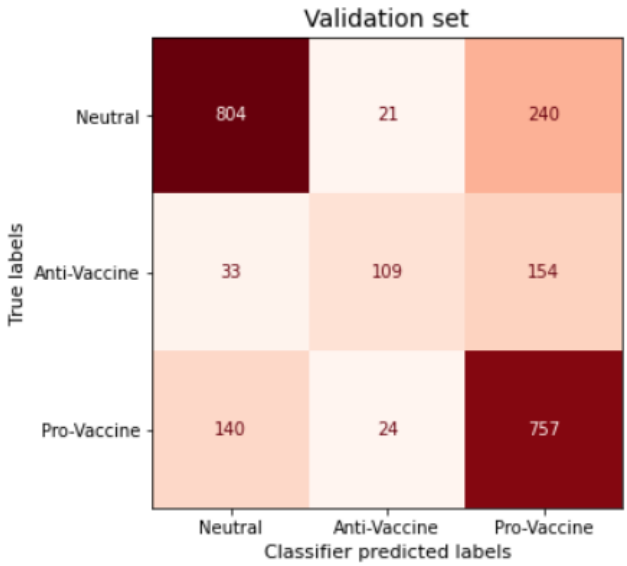


- preprocessing, stop words, `ngram_range`

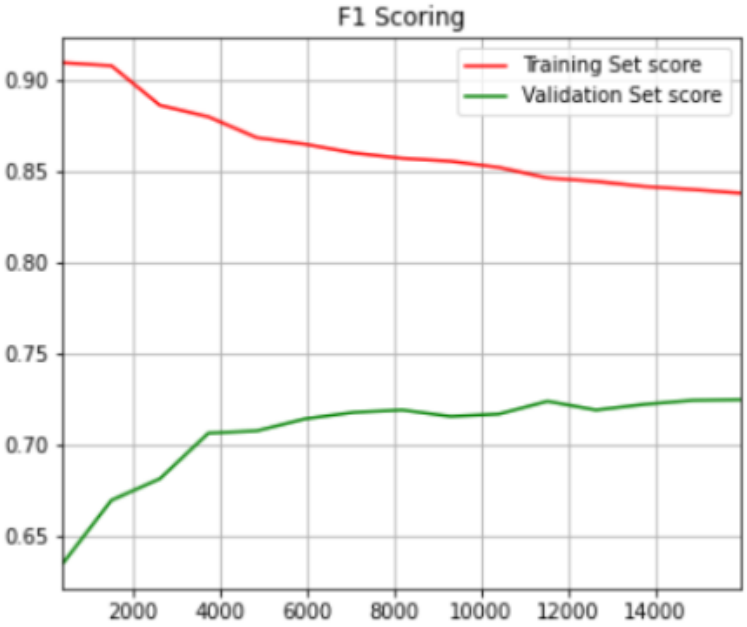
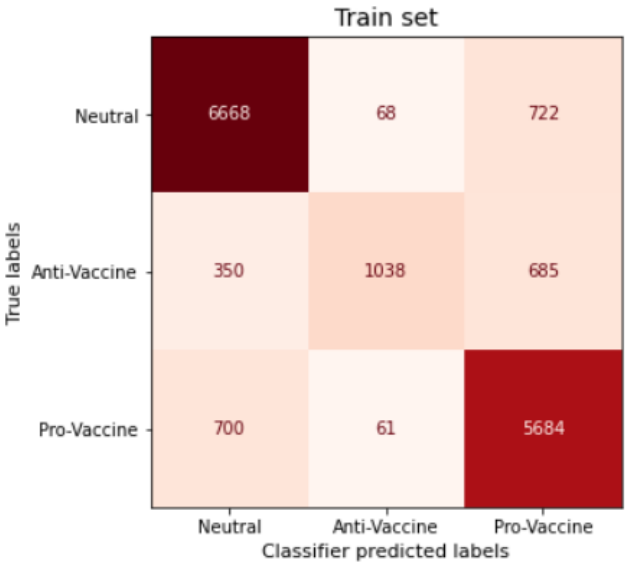
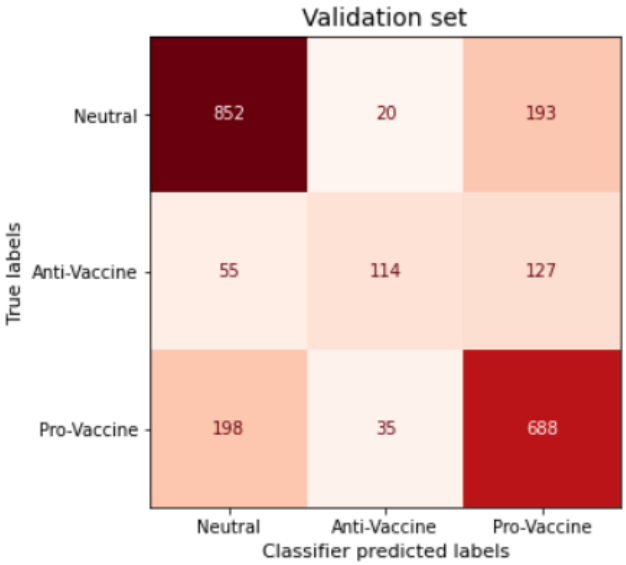


	F1	Precision	Recall
Train	0.9107	0.9298	0.8395
Validation	0.7318	0.7295	0.6484





- preprocessing, stop words



	F1	Precision	Recall
Train	0.8381	0.8517	0.7589
Validation	0.7248	0.7094	0.6440