

LSTM											
HIDDEN	DEPTH	DROPOUT	LR	MIN_FREQ	ACCURACY	PRECISION	RECALL	F	TEST ERROR	STD	
150	2	0.00	0.0001	0	0.784	0.788	0.766	0.777	0.474		
100	2	0.00	0.0001	0	0.790	0.768	0.820	0.793	0.479		0.013
200	2	0.00	0.0001	0	0.787	0.795	0.762	0.778	0.528		
300	2	0.00	0.0001	0	0.784	0.814	0.727	0.768	0.512		
150	3	0.00	0.0001	0	0.774	0.717	0.893	0.795	0.468		
150	1	0.00	0.0001	0	0.797	0.813	0.762	0.786	0.463		0.006
150	5	0.00	0.0001	0	0.794	0.770	0.827	0.797	0.465		
150	2	0.10	0.0001	0	0.776	0.783	0.752	0.768	0.462		
150	2	0.30	0.0001	0	0.784	0.768	0.804	0.785	0.493		0.015
150	2	0.60	0.0001	0	0.780	0.726	0.886	0.798	0.471		
150	2	0.00	0.0010	0	0.797	0.860	0.701	0.772	0.671		
150	2	0.00	0.0100	0	0.509	NA	0.000	NA	0.693		0.080
150	2	0.00	0.1000	0	0.491	0.491	1.000	0.658	0.703		
150	2	0.00	0.0001	1	0.791	0.800	0.766	0.783	0.461		
150	2	0.00	0.0001	3	0.774	0.829	0.680	0.747	0.551		0.020
150	2	0.00	0.0001	5	0.789	0.799	0.762	0.780	0.451		

BASELINE											
HIDDEN	DEPTH	DROPOUT	LR	MIN_FREQ	ACCURACY	PRECISION	RECALL	F	TEST ERROR	STD	
150	2	0.00	0.0001	0	0.769	0.749	0.797	0.772	0.494		
100	2	0.00	0.0001	0	0.771	0.758	0.783	0.770	0.502		0.007
200	2	0.00	0.0001	0	0.771	0.777	0.748	0.762	0.495		
300	2	0.00	0.0001	0	0.775	0.760	0.792	0.776	0.479		
150	3	0.00	0.0001	0	0.763	0.714	0.862	0.781	0.486		
150	1	0.00	0.0001	0	0.714	0.699	0.734	0.716	0.642		0.038
150	5	0.00	0.0001	0	0.780	0.761	0.804	0.782	0.459		
150	2	0.10	0.0001	0	0.767	0.753	0.783	0.767	0.507		
150	2	0.30	0.0001	0	0.771	0.779	0.743	0.761	0.517		0.004
150	2	0.60	0.0001	0	0.757	0.735	0.790	0.761	0.557		
150	2	0.00	0.0010	0	0.784	0.763	0.813	0.787	0.462		
150	2	0.00	0.0100	0	0.771	0.764	0.771	0.767	0.489		0.075
150	2	0.00	0.1000	0	0.711	0.803	0.544	0.649	0.556		
150	2	0.00	0.0001	1	0.772	0.777	0.750	0.763	0.499		
150	2	0.00	0.0001	3	0.767	0.746	0.797	0.771	0.495		0.004
150	2	0.00	0.0001	5	0.773	0.763	0.780	0.771	0.502		

Best Hiparam	VALUES	VALUES
CELL	LSTM	BASELINE
HIDDEN	100	300
DEPTH	3	3
DROPOUT	0.6	0.1
LR	0.0001	0.001
MIN_FREQ	1	3

LSTM						LSTM-RANDOM_REPR					
ACCURACY	PRECISION	RECALL	F	TEST ERROR		ACCURACY	PRECISION	RECALL	F	TEST ERROR	
0.786	0.818	0.724	0.768	0.506		0.749	0.710	0.825	0.763	0.568	
0.779	0.724	0.888	0.797	0.511		0.753	0.747	0.752	0.750	0.593	
0.767	0.710	0.888	0.789	0.480		0.752	0.709	0.839	0.769	0.600	
0.779	0.729	0.874	0.795	0.516		0.728	0.782	0.619	0.691	0.672	
0.786	0.757	0.829	0.792	0.485		0.752	0.756	0.731	0.743	0.619	
0.779	0.748	0.841	0.788	0.500	AVERAGE	0.747	0.741	0.753	0.743	0.610	
0.008	0.043	0.069	0.012	0.016	STD	0.011	0.031	0.088	0.031	0.039	

BASELINE					BASELINE-RANDOM_REPR				
ACCURACY	PRECISION	RECALL	F	TEST ERROR	ACCURACY	PRECISION	RECALL	F	TEST ERROR
0.765	0.782	0.722	0.751	0.482	0.784	0.747	0.848	0.794	0.531
0.775	0.762	0.787	0.775	0.490	0.732	0.755	0.671	0.71	0.612
0.756	0.714	0.839	0.771	0.570	0.737	0.788	0.636	0.704	0.55
0.768	0.741	0.811	0.775	0.550	0.772	0.763	0.776	0.769	0.604
0.771	0.735	0.834	0.781	0.469	0.756	0.692	0.904	0.784	0.659
0.767	0.747	0.799	0.771	0.512	0.756	0.749	0.767	0.752	0.591
0.007	0.026	0.047	0.012	0.045	0.022	0.035	0.114	0.042	0.051