Classifier	KNeighborsClassifier		Bush Data Values	
Parameters	n_neighbors=1	(Ran Experiments Using Google colab TPU Instance)		
	result1	**result2**	**result3**	**mean result**
fit_time	6.7532239	5.95790339	5.90583897	6.20565542
score_time	1246.231256	1251.108598	1265.87102	1254.403625
test_f1	0.13597734	0.12637363	0.1442623	0.135537757
test_precision	0.13636364	0.12299465	0.17054264	0.14330031
test_recall	0.13559322	0.1299435	0.125	0.130178907

Classifier	KNeighborsClassifier			
Parameters	n_neighbors=3			
	result1	**result2**	**result3**	**mean result**
fit_time	6.94914174	5.76844311	5.65672946	6.124771437
score_time	1287.698082	1298.239968	1297.923931	1294.62066
test_f1	0.06481481	0.06829268	0.08	0.07103583
test_precision	0.17948718	0.25	0.33333333	0.254273503
test_recall	0.03954802	0.03954802	0.04545455	0.041516863

Classifier	KNeighborsClassifier			
Parameters	n_neighbors=5			
	result1	**result2**	**result3**	**mean result**
fit_time	6.05114889	5.1037786	5.30660534	5.48717761
score_time	1203.119299	1201.950144	1203.41019	1202.826544
test_f1	0.03092784	0.02173913	0.03278689	0.02848462
test_precision	0.17647059	0.28571429	0.42857143	0.29691877
test_recall	0.01694915	0.01129944	0.01704545	0.015098013

Bush Data Values

SVC classifier parameters that returned a mean zero f1

C	kernel	degree	gamma
??	linear	N/A	N/A
??	poly	??	N/A
??	rbf	N/A	??
??	??	??	??

(more rows and parameters)

Mean Zero F1 Experiments

1)

Parameters	C=1.0	kernel='poly'	degree=2	
	result1	**result2**	**result3**	**mean result**
fit_time	95.94619894	95.92783737	92.7500596	94.87469864
score_time	137.9403734	140.6276474	135.7129662	138.0936623
test_f1	0	0	0	0

test_precision	0	0	0	0
test_recall	0	0	0	0

2)

Parameters	C=1.0	kernel='rbf'	gamma=auto	
	result1	**result2**	**result3**	**mean result**
fit_time	105.1140482	103.8332079	101.9506102	103.6326221
score_time	131.7382495	141.7545495	142.3500626	138.6142872
test_f1	0	0	0	0
test_precision	0	0	0	0
test_recall	0	0	0	0

3)

Parameters	C=1.0	kernel='poly'	degree=3	
	result1	**result2**	**result3**	**mean result**
fit_time	103.608	103.8332079	99.18311238	100.7470605
score_time	144.6473763	144.7629974	142.0471327	143.8191688
test_f1	0	0	0	0
test_precision	0	0	0	0
test_recall	0	0	0	0

4)

Parameters	C=2.0	kernel='rbf'	gamma=auto	
	result1	**result2**	**result3**	**mean result**
fit_time	101.8286109	105.5163217	104.1287148	103.8245491
score_time	136.6280372	145.3467367	136.1629143	139.3792294
test_f1	0	0	0	0
test_precision	0	0	0	0
test_recall	0	0	0	0

5)

Parameters	C=1.0	kernel='sigmoid'		
	result1	**result2**	**result3**	**mean result**
fit_time	53.17856956	53.64509368	53.49749517	53.44038614
score_time	67.10387588	68.69051337	67.6781733	67.82418752
test_f1	0	0	0	0
test_precision	0	0	0	0
test_recall	0	0	0	0

6)

Parameters	C=1.0	kernel='poly'	degree=10	
	result1	**result2**	**result3**	**mean result**
fit_time	56.50448442	55.16002846	55.98083782	55.88178357
score_time	76.80685616	76.43545818	72.25367188	75.16532874
test_f1	0	0	0	0
test_precision	0	0	0	0
test_recall	0	0	0	0

7)

Parameters	C=1.0	kernel='sigmoid'	gamma=auto	
	result1	**result2**	**result3**	**mean result**
fit_time	58.79236817	59.33396387	58.9049468	59.01042628
score_time	78.97298026	77.42809606	78.82673049	78.40926894
test_f1	0	0	0	0
test_precision	0	0	0	0
test_recall	0	0	0	0

Mean F1 that are not Zeros

8)

Parameters	C=1.0	kernel='linear'		
	result1	**result2**	**result3**	**mean result**
fit_time	97.13150096	102.3509715	106.7025383	102.0616702
score_time	105.2083287	111.2478042	111.7628064	109.4063131
test_f1	0.6025641	0.6627907	0.61919505	0.628183283
test_precision	0.6962963	0.68263473	0.68027211	0.686401047
test_recall	0.53107345	0.6440678	0.56818182	0.58110769

9)

Parameters	C=2.0	kernel='linear'		
	result1	**result2**	**result3**	**mean result**
fit_time	100.3321705	108.8285337	104.0980704	104.4195915
score_time	101.9176559	107.7552962	110.3739319	106.6822947
test_f1	0.6025641	0.6627907	0.61919505	0.628183283
test_precision	0.6962963	0.68263473	0.68027211	0.686401047
test_recall	0.53107345	0.6440678	0.56818182	0.58110769

10)   (Selected as the best mean F1)

Parameters	C=9.0	kernel='linear'		
	result1	result2	result3	mean result
fit_time	91.08887339	96.43670344	96.88515401	94.80357695
score_time	93.20195246	109.7688086	108.84097	103.9372437
test_f1	0.6025641	0.6627907	0.61919505	0.628183283
test_precision	0.6962963	0.68263473	0.68027211	0.686401047
test_recall	0.53107345	0.6440678	0.56818182	0.58110769