

**williams datasets**

**KNN Result**

Classifier      KNeighborsClassifier				
Parameters	n_neighbors=1			
	result1	result2	result3	mean result
fit_time	5.34192014	4.83722806	5.31970692	5.1662850380
score_time	771.88136172	770.05597210	789.46003294	777.1324555874
test_f1	0.16666667	0.10526316	0.33333333	0.2017543860
test_precision	0.33333333	0.50000000	0.57142857	0.4682539683
test_recall	0.11111111	0.05882353	0.23529412	0.1350762527
Classifier      KNeighborsClassifier				
Parameters	n_neighbors=3			
	result1	result2	result3	mean result
fit_time	5.50879574	4.99511290	4.71376014	5.0725562572
score_time	767.57621312	763.16864514	765.78671575	765.5105246703
test_f1	0.00000000	0.00000000	0.00000000	0.00000000
test_precision	0.00000000	0.00000000	0.00000000	0.00000000
test_recall	0.00000000	0.00000000	0.00000000	0.00000000
Classifier      KNeighborsClassifier				
Parameters	n_neighbors=5			
	result1	result2	result3	mean result
fit_time	5.15044880	4.83519816	5.27125812	5.0856350263
score_time	774.67728996	803.81123400	784.83699679	787.7751735846
test_f1	0.00000000	0.00000000	0.00000000	0.00000000
test_precision	0.00000000	0.00000000	0.00000000	0.00000000
test_recall	0.00000000	0.00000000	0.00000000	0.00000000

**SVC classifier parameters that returned a mean zero f1  
for gamma**

value = (1/(X.shape[1]\*X.std()))  
value = **0.0008848321288178395**

SVC classifier parameters that returned a mean zero f1				
C	kernel	degree	gamma	coef0
0.00001	linear	N/A	N/A	N/A
0.0001	linear	N/A	N/A	N/A
0.001	linear	N/A	N/A	N/A
1.000	linear	N/A	N/A	N/A
0.00001	poly	1	N/A	1
0.00001	poly	2	N/A	1
0.0001	poly	1	N/A	1
0.0001	poly	2	N/A	1
0.001	poly	1	N/A	1
0.001	poly	2	N/A	1
1.000	poly	1	N/A	1
1.000	poly	2	N/A	1
0.00001	rbf	N/A	value	N/A
0.0001	rbf	N/A	value	N/A
0.001	rbf	N/A	value	N/A
1.000	rbf	N/A	value	N/A

**Best (in terms of mean F1) SVC result I got [best test\_f1 = 0.5327635328]**

Best (in terms of mean F1) SVC result I got				
Parameters	C = 100,    kernel = 'poly',    degree = 3,    coef0 = 2			
	result1	result2	result3	mean result
fit_time	13.10019803	13.05727196	12.14418697	12.7672189871
score_time	13.47802186	12.57174110	12.45664001	12.8354676565
test_f1	0.44444444	0.61538462	0.53846154	<b>0.5327635328</b>
test_precision	0.66666667	0.88888889	0.77777778	0.7777777778
test_recall	0.33333333	0.47058824	0.41176471	0.4052287582