```
/usr/bin/python /Users/LT/Documents/Uni/MA/increOCSVM/evaluation_2.py
yeast1: nu=0.5, gamma=0.1
data size: 1484
break_count: 1464
train_size: 625.0
singular matrix
Confusion matrix:
[[223 206]
 [511 544]]
precision: 0.725333333333, recall: 0.515639810427, f1-score: 0.602770083102
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Confusion matrix:
Prediction   -1    1
Target
-1          192  237
 1          432  623
precision: 0.724418604651, recall: 0.590521327014, f1-score: 0.650652741514
---------
Confusion matrix:
Prediction   -1    1
Target
-1          222  207
 1          509  546
precision: 0.725099601594, recall: 0.517535545024, f1-score: 0.603982300885

*** PROFILER RESULTS ***
incremental_ocsvm (/Users/LT/Documents/Uni/MA/increOCSVM/evaluation_2.py:145
)
function called 1 times

         57040 function calls in 6.678 seconds

   Ordered by: cumulative time, internal time, call count
   List reduced from 136 to 40 due to restriction <40>

   ncalls  tottime  percall  cumtime  percall filename:lineno(function)
        1    0.000    0.000    6.678    6.678 evaluation_2.py:145(incremental_ocsvm)
        1    5.706    5.706    6.033    6.033 ocsvm.py:98(increment)
        1    0.002    0.002    0.646    0.646 ocsvm.py:35(fit)
        1    0.027    0.027    0.644    0.644 ocsvm.py:62(alpha)
        1    0.001    0.001    0.602    0.602 coneprog.py:4159(qp)
        1    0.005    0.005    0.601    0.601 coneprog.py:1441(coneqp)
       13    0.000    0.000    0.536    0.041 coneprog.py:1984(kktsolver)
       13    0.016    0.001    0.535    0.041 misc.py:1389(factor)
       13    0.231    0.018    0.231    0.018 {cvxopt.base.gemm}
       13    0.223    0.017    0.223    0.017 {cvxopt.base.syrk}
     7839    0.138    0.000    0.138    0.000 {min}
     6496    0.070    0.000    0.070    0.000 {method 'dot' of 'numpy.ndarray' objects}
       26    0.058    0.002    0.058    0.002 {cvxopt.lapack.potrf}
        2    0.000    0.000    0.048    0.024 ocsvm.py:58(gram)
        2    0.000    0.000    0.048    0.024 pairwise.py:1164(pairwise_kernels)
        2    0.000    0.000    0.048    0.024 pairwise.py:949(_parallel_pairwise)
        2    0.018    0.009    0.048    0.024 pairwise.py:740(rbf_kernel)
      152    0.041    0.000    0.041    0.000 {cvxopt.base.gemv}
       24    0.000    0.000    0.038    0.002 coneprog.py:2333(f4)
       25    0.001    0.000    0.038    0.002 misc.py:1489(solve)
       24    0.000    0.000    0.037    0.002 coneprog.py:2291(f4_no_ir)
        2    0.013    0.007    0.030    0.015 pairwise.py:136(euclidean_distances)
     2484    0.017    0.000    0.017    0.000 {method 'remove' of 'list' objects}
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 59      681   0.013   0.000   0.017   0.000 numeric.py:966(outer)
 60        2   0.000   0.000   0.017   0.008 extmath.py:171(safe_sparse_dot)
 61        2   0.017   0.008   0.017   0.008 {numpy.core._dotblas.dot}
 62     7588   0.014   0.000   0.014   0.000 {numpy.core.multiarray.where}
 63       26   0.000   0.000   0.014   0.001 coneprog.py:1900(fG)
 64       26   0.000   0.000   0.013   0.001 misc.py:801(sgemv)
 65     1170   0.003   0.000   0.011   0.000 numeric.py:136(ones)
 66     9861   0.009   0.000   0.009   0.000 {range}
 67       50   0.008   0.000   0.008   0.000 {cvxopt.blas.trsv}
 68     3117   0.008   0.000   0.008   0.000 {numpy.core.multiarray.empty}
 69       13   0.006   0.000   0.006   0.000 {cvxopt.blas.trsm}
 70     1170   0.005   0.000   0.005   0.000 {numpy.core.multiarray.copyto}
 71        2   0.000   0.000   0.004   0.002 shape_base.py:179(vstack)
 72        2   0.004   0.002   0.004   0.002 {numpy.core.multiarray.concatenate}
 73     1309   0.003   0.000   0.003   0.000 {numpy.core.multiarray.zeros}
 74     1368   0.001   0.000   0.003   0.000 numeric.py:392(asarray)
 75        2   0.003   0.001   0.003   0.001 linalg.py:454(inv)
 76
 77
 78
 79 *** PROFILER RESULTS ***
 80 cvxopt_ocsvm (/Users/LT/Documents/Uni/MA/increOCSVM/evaluation_2.py:141)
 81 function called 1 times
 82
 83         2026 function calls in 7.713 seconds
 84
 85    Ordered by: cumulative time, internal time, call count
 86    List reduced from 117 to 40 due to restriction <40>
 87
 88    ncalls  tottime  percall  cumtime  percall filename:lineno(function)
 89         1   0.000    0.000    7.713    7.713 evaluation_2.py:141(cvxopt_ocsvm)
 90         1   0.018    0.018    7.713    7.713 ocsvm.py:35(fit)
 91         1   0.229    0.229    7.640    7.640 ocsvm.py:62(alpha)
 92         1   0.007    0.007    7.282    7.282 coneprog.py:4159(qp)
 93         1   0.004    0.004    7.274    7.274 coneprog.py:1441(coneqp)
 94        10   0.000    0.000    7.015    0.701 coneprog.py:1984(kktsolver)
 95        10   0.106    0.011    7.015    0.701 misc.py:1389(factor)
 96        10   4.105    0.410    4.105    0.410 {cvxopt.base.syrk}
 97        10   2.027    0.203    2.027    0.203 {cvxopt.base.gemm}
 98        20   0.744    0.037    0.744    0.037 {cvxopt.lapack.potrf}
 99       116   0.192    0.002    0.192    0.002 {cvxopt.base.gemv}
100        19   0.001    0.000    0.168    0.009 misc.py:1489(solve)
101        18   0.000    0.000    0.161    0.009 coneprog.py:2333(f4)
102        18   0.000    0.000    0.161    0.009 coneprog.py:2291(f4_no_ir)
103         2   0.000    0.000    0.140    0.070 ocsvm.py:58(gram)
104         2   0.000    0.000    0.140    0.070 pairwise.py:1164(pairwise_kernels)
105         2   0.000    0.000    0.140    0.070 pairwise.py:949(_parallel_pairwise)
106         2   0.060    0.030    0.140    0.070 pairwise.py:740(rbf_kernel)
107         2   0.036    0.018    0.080    0.040 pairwise.py:136(euclidean_distances)
108        20   0.000    0.000    0.066    0.003 coneprog.py:1900(fG)
109        20   0.000    0.000    0.066    0.003 misc.py:801(sgemv)
110         1   0.000    0.000    0.055    0.055 ocsvm.py:45(rho)
111         2   0.000    0.000    0.044    0.022 extmath.py:171(safe_sparse_dot)
112         2   0.043    0.022    0.043    0.022 {numpy.core._dotblas.dot}
113        38   0.041    0.001    0.041    0.001 {cvxopt.blas.trsv}
114        10   0.031    0.003    0.031    0.003 {cvxopt.blas.trsm}
115         2   0.000    0.000    0.030    0.015 shape_base.py:179(vstack)
116         2   0.030    0.015    0.030    0.015 {numpy.core.multiarray.concatenate}
117         2   0.004    0.002    0.012    0.006 twodim_base.py:221(diag)
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118        10    0.000    0.000    0.011    0.001 coneprog.py:1847(fP)
119        10    0.011    0.001    0.011    0.001 {cvxopt.base.symv}
120         4    0.009    0.002    0.009    0.002 {numpy.core.multiarray.zeros}
121         9    0.003    0.000    0.004    0.000 misc.py:422(update_scaling)
122         1    0.001    0.001    0.001    0.001 {method 'dot' of 'numpy.ndarray' objects}
123        69    0.001    0.000    0.001    0.000 {range}
124        54    0.001    0.000    0.001    0.000 {cvxopt.misc_solvers.scale2}
125       167    0.001    0.000    0.001    0.000 {cvxopt.blas.axpy}
126         2    0.000    0.000    0.001    0.000 data.py:29(Xs)
127         4    0.000    0.000    0.001    0.000 pairwise.py:57(check_pairwise_arrays)
128        20    0.001    0.000    0.001    0.000 {cvxopt.base.sqrt}
129
130
131
132  *** PROFILER RESULTS ***
133  sklearn_ocsvm (/Users/LT/Documents/Uni/MA/increOCSVM/evaluation_2.py:137)
134  function called 1 times
135
136         57 function calls in 0.041 seconds
137
138    Ordered by: cumulative time, internal time, call count
139
140    ncalls  tottime  percall  cumtime  percall filename:lineno(function)
141         1    0.000    0.000    0.041    0.041 evaluation_2.py:137(sklearn_ocsvm)
142         1    0.000    0.000    0.041    0.041 classes.py:941(fit)
143         1    0.000    0.000    0.041    0.041 base.py:99(fit)
144         1    0.000    0.000    0.041    0.041 base.py:211(_dense_fit)
145         1    0.041    0.041    0.041    0.041 {sklearn.svm.libsvm.fit}
146         1    0.000    0.000    0.000    0.000 validation.py:268(check_array)
147         1    0.000    0.000    0.000    0.000 validation.py:43(_assert_all_finite)
148         1    0.000    0.000    0.000    0.000 _methods.py:23(_sum)
149         1    0.000    0.000    0.000    0.000 {method 'sum' of 'numpy.ndarray' objects}
150         1    0.000    0.000    0.000    0.000 {method 'reduce' of 'numpy.ufunc' objects}
151         1    0.000    0.000    0.000    0.000 validation.py:126(_shape_repr)
152         1    0.000    0.000    0.000    0.000 numeric.py:136(ones)
153         1    0.000    0.000    0.000    0.000 {method 'randint' of 'mtrand.RandomState'
      objects}
154         1    0.000    0.000    0.000    0.000 base.py:193(_validate_targets)
155         1    0.000    0.000    0.000    0.000 shape_base.py:60(atleast_2d)
156         1    0.000    0.000    0.000    0.000 {method 'join' of 'str' objects}
157         5    0.000    0.000    0.000    0.000 {numpy.core.multiarray.array}
158         1    0.000    0.000    0.000    0.000 getlimits.py:244(__init__)
159         2    0.000    0.000    0.000    0.000 numeric.py:392(asarray)
160         2    0.000    0.000    0.000    0.000 {numpy.core.multiarray.empty}
161         1    0.000    0.000    0.000    0.000 {method 'copy' of 'numpy.ndarray' objects}
162         3    0.000    0.000    0.000    0.000 validation.py:153(<genexpr>)
163         1    0.000    0.000    0.000    0.000 {sklearn.svm.libsvm.set_verbosity_wrap}
164         1    0.000    0.000    0.000    0.000 {numpy.core.multiarray.copyto}
165         2    0.000    0.000    0.000    0.000 numeric.py:462(asanyarray)
166         1    0.000    0.000    0.000    0.000 validation.py:105(_num_samples)
167         2    0.000    0.000    0.000    0.000 base.py:702(isspmatrix)
168         6    0.000    0.000    0.000    0.000 {len}
169         3    0.000    0.000    0.000    0.000 {hasattr}
170         2    0.000    0.000    0.000    0.000 {callable}
171         1    0.000    0.000    0.000    0.000 base.py:203(_warn_from_fit_status)
172         1    0.000    0.000    0.000    0.000 validation.py:503(check_random_state)
173         1    0.000    0.000    0.000    0.000 getlimits.py:269(max)
174         1    0.000    0.000    0.000    0.000 {method 'append' of 'list' objects}
175         1    0.000    0.000    0.000    0.000 {method 'disable' of '_lsprof.Profiler' objects}
```

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176         1   0.000   0.000   0.000   0.000 {method 'index' of 'list' objects}
177         3   0.000   0.000   0.000   0.000 {isinstance}
178         0   0.000           0.000          profile:0(profiler)
179
180
181
182 Process finished with exit code 0
183
```