```
/usr/bin/python /Users/LT/Documents/Uni/MA/increOCSVM/evaluation_2.py
page-blocks0: nu=0.1, gamma=3
data size: 5472
break_count: 5452
train_size: 461.0
Confusion matrix:
[[ 248  311]
 [4666  247]]
precision: 0.442652329749, recall: 0.0502747811928, f1-score: 0.0902942789252
--------
Confusion matrix:
Prediction   -1    1
Target
-1          232  327
 1         4662  251
precision: 0.434256055363, recall: 0.0510889476898, f1-score: 0.0914223274449
---------
Confusion matrix:
Prediction   -1    1
Target
-1          248  311
 1         4668  245
precision: 0.440647482014, recall: 0.0498676979442, f1-score: 0.0895959041872

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

         102876 function calls in 16.126 seconds

   Ordered by: cumulative time, internal time, call count
   List reduced from 135 to 40 due to restriction <40>

   ncalls  tottime  percall  cumtime  percall filename:lineno(function)
        1    0.000    0.000   16.126   16.126 evaluation_2.py:145(incremental_ocsvm)
        1   14.030   14.030   15.544   15.544 ocsvm.py:98(increment)
        2    0.000    0.000    0.665    0.333 ocsvm.py:58(gram)
        2    0.000    0.000    0.665    0.333 pairwise.py:1164(pairwise_kernels)
        2    0.000    0.000    0.665    0.333 pairwise.py:949(_parallel_pairwise)
        2    0.224    0.112    0.665    0.333 pairwise.py:740(rbf_kernel)
        1    0.001    0.001    0.582    0.582 ocsvm.py:35(fit)
        1    0.013    0.013    0.580    0.580 ocsvm.py:62(alpha)
        1    0.000    0.000    0.558    0.558 coneprog.py:4159(qp)
        1    0.005    0.005    0.558    0.558 coneprog.py:1441(coneqp)
       14    0.000    0.000    0.465    0.033 coneprog.py:1984(kktsolver)
       14    0.048    0.003    0.465    0.033 misc.py:1389(factor)
    15127    0.442    0.000    0.442    0.000 {min}
        2    0.142    0.071    0.441    0.220 pairwise.py:136(euclidean_distances)
        2    0.000    0.000    0.298    0.149 extmath.py:171(safe_sparse_dot)
        2    0.298    0.149    0.298    0.149 {numpy.core._dotblas.dot}
    15388    0.242    0.000    0.242    0.000 {method 'dot' of 'numpy.ndarray' objects}
       14    0.201    0.014    0.201    0.014 {cvxopt.base.gemm}
       14    0.155    0.011    0.155    0.011 {cvxopt.base.syrk}
      164    0.060    0.000    0.060    0.000 {cvxopt.base.gemv}
       28    0.048    0.002    0.048    0.002 {cvxopt.lapack.potrf}
       26    0.000    0.000    0.046    0.002 coneprog.py:2333(f4)
       26    0.001    0.000    0.045    0.002 coneprog.py:2291(f4_no_ir)
       27    0.001    0.000    0.045    0.002 misc.py:1489(solve)
```

```
  4451   0.044   0.000   0.044   0.000 {method 'remove' of 'list' objects}
  1329   0.028   0.000   0.038   0.000 numeric.py:966(outer)
 15051   0.036   0.000   0.036   0.000 {numpy.core.multiarray.where}
    28   0.000   0.000   0.031   0.001 coneprog.py:1900(fG)
    28   0.004   0.000   0.031   0.001 misc.py:801(sgemv)
  2123   0.008   0.000   0.025   0.000 numeric.py:136(ones)
  5867   0.018   0.000   0.018   0.000 {numpy.core.multiarray.empty}
  2123   0.011   0.000   0.011   0.000 {numpy.core.multiarray.copyto}
    14   0.011   0.001   0.011   0.001 {cvxopt.blas.trsm}
    54   0.011   0.000   0.011   0.000 {cvxopt.blas.trsv}
  2662   0.003   0.000   0.007   0.000 numeric.py:392(asarray)
  7736   0.006   0.000   0.006   0.000 {range}
  2369   0.005   0.000   0.005   0.000 {numpy.core.multiarray.zeros}
  2681   0.004   0.000   0.004   0.000 {numpy.core.multiarray.array}
  2659   0.003   0.000   0.003   0.000 {method 'ravel' of 'numpy.ndarray' objects}
 13208   0.003   0.000   0.003   0.000 {method 'append' of 'list' objects}



*** PROFILER RESULTS ***
cvxopt_ocsvm (/Users/LT/Documents/Uni/MA/increOCSVM/evaluation_2.py:141)
function called 1 times

         3034 function calls in 197.169 seconds

   Ordered by: cumulative time, internal time, call count
   List reduced from 117 to 40 due to restriction <40>

   ncalls  tottime  percall  cumtime  percall filename:lineno(function)
        1    0.000    0.000  197.169  197.169 evaluation_2.py:141(cvxopt_ocsvm)
        1    0.086    0.086  197.169  197.169 ocsvm.py:35(fit)
        1    2.256    2.256  197.078  197.078 ocsvm.py:62(alpha)
        1    0.046    0.046  193.765  193.765 coneprog.py:4159(qp)
        1    0.015    0.015  193.719  193.719 coneprog.py:1441(coneqp)
       16    0.000    0.000  189.732   11.858 coneprog.py:1984(kktsolver)
       16    1.698    0.106  189.732   11.858 misc.py:1389(factor)
       16  123.356    7.710  123.356    7.710 {cvxopt.base.syrk}
       16   41.502    2.594   41.502    2.594 {cvxopt.base.gemm}
       32   22.720    0.710   22.720    0.710 {cvxopt.lapack.potrf}
      188    3.160    0.017    3.160    0.017 {cvxopt.base.gemv}
       31    0.002    0.000    2.631    0.085 misc.py:1489(solve)
       30    0.000    0.000    2.559    0.085 coneprog.py:2333(f4)
       30    0.001    0.000    2.559    0.085 coneprog.py:2291(f4_no_ir)
       32    0.000    0.000    1.146    0.036 coneprog.py:1900(fG)
       32    0.001    0.000    1.146    0.036 misc.py:801(sgemv)
        2    0.000    0.000    0.780    0.390 ocsvm.py:58(gram)
        2    0.000    0.000    0.780    0.390 pairwise.py:1164(pairwise_kernels)
        2    0.000    0.000    0.780    0.390 pairwise.py:949(_parallel_pairwise)
        2    0.264    0.132    0.780    0.390 pairwise.py:740(rbf_kernel)
       62    0.614    0.010    0.614    0.010 {cvxopt.blas.trsv}
        2    0.188    0.094    0.515    0.258 pairwise.py:136(euclidean_distances)
       16    0.449    0.028    0.449    0.028 {cvxopt.blas.trsm}
        2    0.000    0.000    0.326    0.163 extmath.py:171(safe_sparse_dot)
        2    0.326    0.163    0.326    0.163 {numpy.core._dotblas.dot}
        2    0.000    0.000    0.261    0.130 shape_base.py:179(vstack)
        2    0.261    0.130    0.261    0.130 {numpy.core.multiarray.concatenate}
       16    0.000    0.000    0.155    0.010 coneprog.py:1847(fP)
       16    0.155    0.010    0.155    0.010 {cvxopt.base.symv}
        2    0.020    0.010    0.020    0.010 twodim_base.py:221(diag)
```

```
      15    0.015    0.001    0.018    0.001 misc.py:422(update_scaling)
     111    0.005    0.000    0.005    0.000 {range}
      90    0.004    0.000    0.004    0.000 {cvxopt.misc_solvers.scale2}
       1    0.000    0.000    0.004    0.004 ocsvm.py:45(rho)
     275    0.003    0.000    0.003    0.000 {cvxopt.blas.axpy}
      32    0.002    0.000    0.002    0.000 {cvxopt.base.sqrt}
     123    0.002    0.000    0.002    0.000 {cvxopt.blas.copy}
       1    0.001    0.001    0.002    0.002 misc.py:250(compute_scaling)
      30    0.002    0.000    0.002    0.000 {cvxopt.misc_solvers.sinv}
      91    0.001    0.000    0.001    0.000 {cvxopt.misc_solvers.scale}



*** PROFILER RESULTS ***
sklearn_ocsvm (/Users/LT/Documents/Uni/MA/increOCSVM/evaluation_2.py:137)
function called 1 times

       57 function calls in 0.170 seconds

   Ordered by: cumulative time, internal time, call count

   ncalls  tottime  percall  cumtime  percall filename:lineno(function)
        1    0.000    0.000    0.170    0.170 evaluation_2.py:137(sklearn_ocsvm)
        1    0.000    0.000    0.170    0.170 classes.py:941(fit)
        1    0.000    0.000    0.170    0.170 base.py:99(fit)
        1    0.000    0.000    0.169    0.169 base.py:211(_dense_fit)
        1    0.169    0.169    0.169    0.169 {sklearn.svm.libsvm.fit}
        1    0.000    0.000    0.000    0.000 validation.py:268(check_array)
        1    0.000    0.000    0.000    0.000 validation.py:43(_assert_all_finite)
        1    0.000    0.000    0.000    0.000 {method 'sum' of 'numpy.ndarray' objects}
        1    0.000    0.000    0.000    0.000 _methods.py:23(_sum)
        1    0.000    0.000    0.000    0.000 {method 'reduce' of 'numpy.ufunc' objects}
        1    0.000    0.000    0.000    0.000 validation.py:503(check_random_state)
        1    0.000    0.000    0.000    0.000 base.py:193(_validate_targets)
        1    0.000    0.000    0.000    0.000 {method 'randint' of 'mtrand.RandomState'
    objects}
        1    0.000    0.000    0.000    0.000 getlimits.py:269(max)
        1    0.000    0.000    0.000    0.000 validation.py:126(_shape_repr)
        1    0.000    0.000    0.000    0.000 getlimits.py:244(__init__)
        1    0.000    0.000    0.000    0.000 numeric.py:136(ones)
        1    0.000    0.000    0.000    0.000 shape_base.py:60(atleast_2d)
        1    0.000    0.000    0.000    0.000 {method 'join' of 'str' objects}
        5    0.000    0.000    0.000    0.000 {numpy.core.multiarray.array}
        1    0.000    0.000    0.000    0.000 {numpy.core.multiarray.copyto}
        2    0.000    0.000    0.000    0.000 numeric.py:392(asarray)
        3    0.000    0.000    0.000    0.000 validation.py:153(<genexpr>)
        2    0.000    0.000    0.000    0.000 {numpy.core.multiarray.empty}
        1    0.000    0.000    0.000    0.000 {method 'copy' of 'numpy.ndarray' objects}
        1    0.000    0.000    0.000    0.000 validation.py:105(_num_samples)
        1    0.000    0.000    0.000    0.000 {sklearn.svm.libsvm.set_verbosity_wrap}
        2    0.000    0.000    0.000    0.000 numeric.py:462(asanyarray)
        2    0.000    0.000    0.000    0.000 base.py:702(isspmatrix)
        3    0.000    0.000    0.000    0.000 {isinstance}
        3    0.000    0.000    0.000    0.000 {hasattr}
        1    0.000    0.000    0.000    0.000 base.py:203(_warn_from_fit_status)
        1    0.000    0.000    0.000    0.000 {method 'index' of 'list' objects}
        6    0.000    0.000    0.000    0.000 {len}
        2    0.000    0.000    0.000    0.000 {callable}
        1    0.000    0.000    0.000    0.000 {method 'append' of 'list' objects}
```

```
176         1    0.000    0.000    0.000    0.000 {method 'disable' of '_lsprof.Profiler' objects}
177         0    0.000             0.000          profile:0(profiler)
178
179
180
181 Process finished with exit code 0
182
```