```
/usr/bin/python /Users/LT/Documents/Uni/MA/increOCSVM/evaluation 2.py
 2 haberman: nu=0.75, gamma=0.1
 3 data size: 306
 4 break_count: 286
   train_size: 193.0
   singular matrix
   Confusion matrix:
   [[ 59 22]
    [185 40]]
   precision: 0.645161290323, recall: 0.17777777778, f1-score: 0.278745644599
11
12
   Confusion matrix:
13
    Prediction -1 1
14
   Target
15
            48 33
   -1
16
    1
           146 79
17
   precision: 0.705357142857, recall: 0.3511111111111, f1-score: 0.46884272997
18
19
   Confusion matrix:
20 Prediction -1
21
22
   Target
           20 61
   -1
23
           59 166
    1
24
   precision: 0.73127753304, recall: 0.73777777778, f1-score: 0.734513274336
25
26
    *** PROFILER RESULTS ***
27
    incremental_ocsvm (/Users/LT/Documents/Uni/MA/increOCSVM/evaluation_2.py:145
28
29
    function called 1 times
30
         19964 function calls in 9.742 seconds
31
32
     Ordered by: cumulative time, internal time, call count
33
     List reduced from 135 to 40 due to restriction <40>
34
35
     ncalls tottime percall cumtime percall filename:lineno(function)
36
                   0.000
                           9.742 evaluation_2.py:145(incremental_ocsvm)
            0.000
        1
37
            9.664
                                   9.711 ocsvm.py:98(increment)
        1
                   9.664
                          9.711
38
            0.000
                   0.000 0.030
        1
                                  0.030 ocsvm.py:35(fit)
39
            0.002
                   0.002 0.030
                                  0.030 ocsvm.py:62(alpha)
        1
40
                   0.000 0.026
                                  0.026 coneprog.py:4159(qp)
        1
            0.000
41
        1
                   0.002
                           0.026
                                   0.026 coneprog.py:1441(coneqp)
            0.002
42
                                   0.002 coneprog.py:1984(kktsolver) 0.002 misc.py:1389(factor)
        11
            0.000
                   0.000 0.017
43
        11
            0.002 0.000 0.017
44
      14433 0.015 0.000 0.015 0.000 {range}
45
                                  0.006 linalg.py:454(inv)
        2 0.012
                   0.006
                           0.012
46
       444 0.009 0.000 0.009
                                   0.000 {method 'dot' of 'numpy.ndarray' objects}
47
        11
            0.007 0.001
                           0.007
                                   0.001 {cvxopt.base.syrk}
48
       664
            0.006 0.000 0.006
                                   0.000 \{ \min \}
49
                                   0.000 {cvxopt.lapack.potrf}
        22
            0.005 0.000 0.005
50
       128
            0.003 0.000 0.003
                                   0.000 {cvxopt.base.gemv}
51
        2
2
2
2
           0.000 0.000 0.003
                                  0.002 ocsvm.py:58(gram)
52
           0.000
                  0.000 0.003
                                  0.002 pairwise.py:1164(pairwise_kernels)
53
           0.000
                   0.000
                           0.003
                                   0.002 pairwise.py:949(_parallel_pairwise)
54
                           0.003
                                   0.002 pairwise.py:740(rbf_kernel)
            0.001
                   0.001
55
        20
            0.000
                   0.000
                           0.003
                                   0.000 coneprog.py:2333(f4)
56
        20
                           0.003
                                   0.000 coneprog.py:2291(f4_no_ir)
            0.000
                    0.000
57
        21
            0.000
                            0.003
                                   0.000 misc.py:1489(solve)
                    0.000
58
        11
            0.002
                    0.000
                           0.002
                                   0.000 {cvxopt.base.gemm}
```

File - unknown

```
0.002
                     0.000
                             0.002
                                     0.000 {numpy.core.multiarray.zeros}
 59
        171
 60
         2
             0.001
                    0.000
                            0.002
                                    0.001 pairwise.py:136(euclidean distances)
         22
 61
             0.000
                     0.000
                             0.001
                                     0.000 coneprog.py:1900(fG)
         22
                             0.001
 62
             0.000
                     0.000
                                     0.000 misc.py:801(sgemv)
        632
 63
             0.001 0.000
                             0.001
                                     0.000 {numpy.core.multiarray.where}
 64
         2
             0.000
                    0.000
                            0.001
                                    0.000 extmath.py:171(safe_sparse_dot)
         2
 65
             0.001
                            0.001
                    0.000
                                    0.000 {numpy.core._dotblas.dot}
 66
         10
             0.001
                    0.000
                             0.001
                                     0.000 misc.py:422(update_scaling)
 67
         1
             0.001
                    0.001
                            0.001
                                    0.001 misc.py:20(<module>)
        219
 68
             0.001
                     0.000
                             0.001
                                     0.000 {numpy.core.multiarray.empty}
 69
         42
             0.000
                     0.000
                             0.000
                                     0.000 {cvxopt.blas.trsv}
 70
        202
             0.000 0.000
                             0.000
                                     0.000 {method 'remove' of 'list' objects}
 71
         2
             0.000
                    0.000
                            0.000
                                    0.000 shape_base.py:179(vstack)
 72
         11
             0.000
                     0.000
                             0.000
                                     0.000 {cvxopt.blas.trsm}
 73
         25
             0.000
                     0.000
                             0.000
                                     0.000 {numpy.core.multiarray.array}
 74
         4
             0.000
                    0.000
                            0.000
                                    0.000 pairwise.py:57(check_pairwise_arrays)
 75
         3
             0.000
                    0.000
                            0.000
                                    0.000 twodim_base.py:221(diag)
 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
          1858 function calls in 0.187 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
             0.000
                    0.000
                            0.187
                                    0.187 evaluation_2.py:141(cvxopt_ocsvm)
 90
         1
             0.001
                    0.001
                            0.187
                                    0.187 ocsvm.py:35(fit)
 91
             0.009
                    0.009
                                    0.182 ocsvm.py:62(alpha)
         1
                            0.182
 92
             0.000
                    0.000
                            0.166
         1
                                    0.166 coneprog.py:4159(qp)
 93
                            0.165
         1
             0.002
                    0.002
                                    0.165 coneprog.py:1441(coneqp)
 94
         9
             0.000
                    0.000
                            0.143
                                    0.016 coneprog.py:1984(kktsolver)
 95
         9
             0.006
                    0.001
                            0.143
                                    0.016 misc.py:1389(factor)
         9
 96
             0.068
                            0.068
                    0.008
                                    0.008 {cvxopt.base.gemm}
             0.054
 97
         9
                            0.054
                    0.006
                                    0.006 {cvxopt.base.syrk}
 98
         18
             0.014
                     0.001
                             0.014
                                     0.001 {cvxopt.lapack.potrf}
 99
             0.013
                             0.013
         104
                     0.000
                                     0.000 {cvxopt.base.gemv}
100
         17
             0.000
                     0.000
                             0.011
                                     0.001 misc.py:1489(solve)
101
         16
             0.000
                     0.000
                             0.011
                                     0.001 coneprog.py:2333(f4)
102
         16
             0.000
                     0.000
                             0.011
                                     0.001 coneprog.py:2291(f4_no_ir)
             0.000
                            0.008
103
         2
                    0.000
                                    0.004 ocsvm.py:58(gram)
         2
104
             0.000
                    0.000
                            0.008
                                    0.004 pairwise.py:1164(pairwise_kernels)
         2
105
             0.000
                    0.000
                            0.008
                                    0.004 pairwise.py:949(_parallel_pairwise)
         2
106
             0.004
                    0.002
                            0.008
                                    0.004 pairwise.py:740(rbf_kernel)
107
         18
             0.000
                     0.000
                             0.005
                                     0.000 coneprog.py:1900(fG)
                             0.004
108
         18
             0.000
                     0.000
                                     0.000 misc.py:801(sgemv)
109
             0.000
                    0.000
                            0.004
         1
                                    0.004 ocsvm.py:45(rho)
110
         2
             0.002
                    0.001
                            0.004
                                    0.002 pairwise.py:136(euclidean_distances)
         34
             0.002
                     0.000
                             0.002
                                     0.000 {cvxopt.blas.trsv}
111
         2
2
2
2
112
             0.000
                    0.000
                            0.002
                                    0.001 shape_base.py:179(vstack)
             0.002
113
                    0.001
                            0.002
                                    0.001 {numpy.core.multiarray.concatenate}
114
             0.000
                    0.000
                            0.002
                                    0.001 extmath.py:171(safe_sparse_dot)
115
                            0.002
             0.002
                     0.001
                                    0.001 {numpy.core._dotblas.dot}
         9
             0.001
                            0.001
116
                     0.000
                                    0.000 {cvxopt.blas.trsm}
117
         8
             0.001
                     0.000
                            0.001
                                    0.000 misc.py:422(update_scaling)
```

File - unknown

```
0.001
                     0.000
                             0.001
118
                                     0.000 twodim_base.py:221(diag)
          9
119
             0.000
                     0.000
                             0.001
                                     0.000 coneprog.py:1847(fP)
          9
                                     0.000 {cvxopt.base.symv}
120
             0.001
                     0.000
                             0.001
121
          4
             0.000
                     0.000
                             0.000
                                     0.000 pairwise.py:57(check_pairwise_arrays)
                             0.000
122
         28
              0.000
                     0.000
                                     0.000 {numpy.core.multiarray.array}
123
          6
             0.000 \quad 0.000
                             0.000
                                     0.000 validation.py:268(check_array)
124
         149
              0.000 0.000
                             0.000
                                      0.000 {cvxopt.blas.axpy}
125
         62
              0.000
                     0.000
                             0.000
                                      0.000 {range}
         19
              0.000
                              0.000
126
                      0.000
                                      0.000 numeric.py:462(asanyarray)
127
         48
              0.000
                      0.000
                              0.000
                                      0.000 {cvxopt.misc_solvers.scale2}
128
          2
             0.000
                     0.000
                             0.000
                                     0.000 \text{ data.py:} 29(Xs)
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 0.002 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
                             0.002
                                     0.002 evaluation_2.py:137(sklearn_ocsvm)
142
          1
             0.000
                     0.000
                             0.002
                                     0.002 classes.py:941(fit)
143
          1
             0.000
                     0.000
                             0.002
                                     0.002 base.py:99(fit)
144
                                     0.002 base.py:211(_dense_fit)
          1
             0.000
                     0.000
                             0.002
145
          1
             0.002
                     0.002
                             0.002
                                     0.002 {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)
                                     0.000 base.py:193( validate targets)
148
          1
             0.000
                     0.000
                             0.000
149
          1
             0.000
                     0.000
                             0.000
                                     0.000 validation.py:126(_shape_repr)
150
             0.000
                             0.000
          1
                     0.000
                                     0.000 {method 'sum' of 'numpy.ndarray' objects}
151
          1
             0.000
                     0.000
                             0.000
                                     0.000 _methods.py:23(_sum)
152
          1
                             0.000
                                     0.000 {method 'reduce' of 'numpy.ufunc' objects}
             0.000
                     0.000
             0.000
                             0.000
153
          1
                     0.000
                                     0.000 shape_base.py:60(atleast_2d)
154
             0.000
                     0.000
                             0.000
                                     0.000 numeric.py:136(ones)
          1
                             0.000
155
          1
             0.000
                     0.000
                                     0.000 {method 'randint' of 'mtrand.RandomState'
     objects}
             0.000
156
                     0.000
                             0.000
          1
                                     0.000 {method 'join' of 'str' objects}
157
          5
                     0.000
                             0.000
             0.000
                                     0.000 {numpy.core.multiarray.array}
          2
158
                     0.000
                             0.000
             0.000
                                     0.000 numeric.py:392(asarray)
          2
159
             0.000
                     0.000
                             0.000
                                     0.000 {numpy.core.multiarray.empty}
          1
160
             0.000
                     0.000
                             0.000
                                     0.000 getlimits.py:244(__init__)
          1
                             0.000
161
             0.000
                     0.000
                                     0.000 {numpy.core.multiarray.copyto}
          2
162
             0.000
                     0.000
                             0.000
                                     0.000 numeric.py:462(asanyarray)
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 validation.py:105(_num_samples)
          3
165
             0.000
                     0.000
                             0.000
                                     0.000 {isinstance}
          3
166
             0.000
                     0.000
                             0.000
                                     0.000 validation.py:153(<genexpr>)
          2
             0.000
                             0.000
167
                     0.000
                                     0.000 base.py:702(isspmatrix)
          6
             0.000
                     0.000
                             0.000
168
                                     0.000 \{len\}
          3
169
             0.000
                     0.000
                             0.000
                                     0.000 {hasattr}
          1
170
             0.000
                     0.000
                             0.000
                                     0.000 {method 'copy' of 'numpy.ndarray' objects}
             0.000
171
          1
                     0.000
                             0.000
                                     0.000 getlimits.py:269(max)
          2
172
             0.000
                     0.000
                             0.000
                                     0.000 {callable}
          1
173
                             0.000
                                     0.000 base.py:203(_warn_from_fit_status)
             0.000
                     0.000
174
                             0.000
          1
             0.000
                     0.000
                                     0.000 validation.py:503(check_random_state)
175
          1
             0.000
                     0.000
                             0.000
                                     0.000 {method 'append' of 'list' objects}
```

| File - unknown |                     |                     |   |
|----------------|---------------------|---------------------|---|
| 176            | 1 0.000             | 0.000 0.000         | 0.000 {method 'disable' of '_lsprof.Profiler' objects}  |
| 177            | 1 0.000             | 0.000 0.000         | 0.000 {method 'disable' of '_lsprof.Profiler' objects} 0.000 {method 'index' of 'list' objects} profile:0(profiler) |
| 178            | 0.000               | 0.000               | protile:0(protiler)   |
| 179            |                     |                     |   |
| 180            |                     |                     |   |
| 181<br>182     | Process finished    | l with evit code (  |   |
| 183            | 1 10ccss Illiislice | i willi call code ( | )   |
| 105            |                     |                     |   |
|                |                     |                     |   |
|                |                     |                     |   |
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