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1 C:\Users\Jorawar\.virtualenvs\CMPT459-project\
  Scripts\python.exe -i C:/Users/Jorawar/Desktop/
  projects/CMPT459/covid-data-mining/src/
  parameter_tuning.py C:\Users\Jorawar\Desktop\
  projects\CMPT459\covid-data-mining\data\
  Merged_Data_Sets.csv
2 == Starting Execution ==
3 Encoding data ...
4 **Time: apply_scheme took 0:00:00.547001
5 **Time: impute_by_mean took 0:00:02.315998
6 Running KNN Grid Search ...
7 -Trying: leaf_size=1, n_neighbors=1
8 --Cross validated mean accuracy: 0.
  9869502976787744
9 --Training 'deceased' recall=0.802151647503016
  | macro recall 0.9411539130222061 | micro recall
  0.9869502976787744
10 -Trying: leaf_size=1, n_neighbors=3
11 --Cross validated mean accuracy: 0.
  9856632550672285
12 --Training 'deceased' recall=0.7757427698724276
  | macro recall 0.9335587451048379 | micro recall
  0.9856632550672285
13 -Trying: leaf_size=1, n_neighbors=9
14 --Cross validated mean accuracy: 0.
  9806676031841595
15 --Training 'deceased' recall=0.6515258051963467
  | macro recall 0.899631269480647 | micro recall
  0.9806676031841595
16 -Trying: leaf_size=1, n_neighbors=29
17 --Cross validated mean accuracy: 0.
  9661756639240083
18 --Training 'deceased' recall=0.
  44225889182866746 | macro recall 0.
  8370254669231866 | micro recall 0.
  9661756639240083
19 -Trying: leaf_size=3, n_neighbors=1
20 --Cross validated mean accuracy: 0.
  9869556492073048
21 --Training 'deceased' recall=0.8019279338564838
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21 | macro recall 0.9411047763569947 | micro recall
    0.9869556492073048
22 -Trying: leaf_size=3, n_neighbors=3
23 --Cross validated mean accuracy: 0.
    985668606595759
24 --Training 'deceased' recall=0.7761903474097145
    | macro recall 0.9336706394891595 | micro recall
    0.985668606595759
25 -Trying: leaf_size=3, n_neighbors=9
26 --Cross validated mean accuracy: 0.
    9806783062412201
27 --Training 'deceased' recall=0.6519733827336336
    | macro recall 0.8997516787511325 | micro recall
    0.9806783062412201
28 -Trying: leaf_size=3, n_neighbors=29
29 --Cross validated mean accuracy: 0.
    9661676366312127
30 --Training 'deceased' recall=0.
    44225889182866746 | macro recall 0.
    8370152595085205 | micro recall 0.
    9661676366312127
31 -Trying: leaf_size=15, n_neighbors=1
32 --Cross validated mean accuracy: 0.
    9869583249715701
33 --Training 'deceased' recall=0.8019279338564838
    | macro recall 0.9411030196464102 | micro recall
    0.9869583249715701
34 -Trying: leaf_size=15, n_neighbors=3
35 --Cross validated mean accuracy: 0.
    9856605793029635
36 --Training 'deceased' recall=0.7757426196282057
    | macro recall 0.9335587249239569 | micro recall
    0.9856605793029635
37 -Trying: leaf_size=15, n_neighbors=9
38 --Cross validated mean accuracy: 0.
    9806622516556293
39 --Training 'deceased' recall=0.6517495188428791
    | macro recall 0.8996838301466972 | micro recall
    0.9806622516556293
40 -Trying: leaf_size=15, n_neighbors=29
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41  --Cross validated mean accuracy: 0.
    966156933574152
42  --Training 'deceased' recall=0.
    44203517818213506 | macro recall 0.
    8369696429644828 | micro recall 0.966156933574152
43  -Trying: leaf_size=60, n_neighbors=1
44  --Cross validated mean accuracy: 0.
    98695832497157
45  --Training 'deceased' recall=0.8019279338564838
    | macro recall 0.941104729418094 | micro recall
    0.98695832497157
46  -Trying: leaf_size=60, n_neighbors=3
47  --Cross validated mean accuracy: 0.
    9856498762459026
48  --Training 'deceased' recall=0.775966633763182
    | macro recall 0.9336028458603306 | micro recall
    0.9856498762459026
49  -Trying: leaf_size=60, n_neighbors=9
50  --Cross validated mean accuracy: 0.
    9806729547126899
51  --Training 'deceased' recall=0.6521969461359439
    | macro recall 0.8998042018905036 | micro recall
    0.9806729547126899
52  -Trying: leaf_size=60, n_neighbors=29
53  --Cross validated mean accuracy: 0.
    9661783396882734
54  --Training 'deceased' recall=0.
    44248260547519996 | macro recall 0.
    8370831052778729 | micro recall 0.
    9661783396882734
55  **Time: grid_search took 4:41:54.307617
56  == Total running time 4:42:04.111615 ==
57
58  leaf_size | n_neighbors | cross validation score
    | macro recall | deceased recall | micro recall
59  Best cross validation score: [15, 1, 0.
    9869583249715701, 0.9411030196464102, 0.
    8019279338564838, 0.9869583249715701]
60  Best macro recall: [1, 1, 0.9869502976787744, 0.
    9411539130222061, 0.802151647503016, 0.

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60 9869502976787744]
61 Best deceased recall: [1, 1, 0.9869502976787744,
    0.9411539130222061, 0.802151647503016, 0.
    9869502976787744]
62 Best micro recall: [15, 1, 0.9869583249715701, 0.
    9411030196464102, 0.8019279338564838, 0.
    9869583249715701]
63 >>>
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