# driving behavior random forest v5

## August 31, 2022

```
[]: import numpy as np
    import pandas as pd
    import seaborn as sns
     import matplotlib.pyplot as plt
[]: df_training = pd.read_csv("../data_mod/train_motion_data.csv")
    df_test = pd.read_csv("../data_mod/test_motion_data.csv")
    df_training
[]:
                                 GyroZ
                                          Class
                                                DiffAccX DiffAccY
              AccX
                         AccY
                                                                        VelX \
          0.000000
                    0.000000 0.101938
                                        NORMAL
                                                0.000000 0.000000
                                                                    0.000000
    1
         -1.624864 -1.082492 0.135536
                                        NORMAL -1.624864 -1.082492 -0.812432
         -0.594660 -0.122410 0.087888
                                        NORMAL
                                                1.030204 0.960082 -0.297330
    3
          0.738478 -0.228456 0.054902
                                        NORMAL
                                                1.333138 -0.106046
                                                                    0.369239
          0.101741 0.777568 0.054902
                                        NORMAL -0.636737 1.006023
                                                                    0.050871
    3639 0.915688 -2.017489 -1.236468
                                          SLOW
                                               2.374675 -1.824629
                                                                    0.457844
    3640 -1.934203
                   0.914925 -0.477162
                                          SLOW -2.849891 2.932414 -0.967102
    3641 -0.222845
                    0.747304 0.054291
                                          SLOW 1.711359 -0.167621 -0.111422
    3642 -0.349423 0.067261 -0.004963
                                          SLOW -0.126579 -0.680043 -0.174712
    3643 -0.402428 0.406218 0.001145
                                          SLOW -0.053005 0.338957 -0.201214
              VelY
    0
          0.000000
    1
         -0.541246
    2
         -0.061205
         -0.114228
    3
          0.388784
    3639 -1.008745
    3640 0.457462
    3641 0.373652
    3642 0.033630
    3643 0.203109
    [3644 rows x 8 columns]
```

```
[]: df_training.isna().sum()
                0
[]: AccX
    AccY
                0
    GyroZ
                0
    Class
                0
    DiffAccX
                0
    DiffAccY
                0
    VelX
                0
    VelY
                0
    dtype: int64
    0.0.1 Change categories to numbers
[]: df_training = df_training.replace(
        {"Class": {"NORMAL": 0, "AGGRESSIVE": 1, "SLOW": 2}})
    df_test = df_test.replace(
        {"Class": {"NORMAL": 0, "AGGRESSIVE": 1, "SLOW": 2}})
    df_training
[]:
              AccX
                        AccY
                                GyroZ Class DiffAccX DiffAccY
                                                                     VelX \
          0.000000 0.000000 0.101938
                                           0.000000
                                                       0.000000 0.000000
    1
         -1.624864 -1.082492 0.135536
                                           0 -1.624864 -1.082492 -0.812432
    2
         -0.594660 -0.122410 0.087888
                                           0 1.030204 0.960082 -0.297330
                                           0 1.333138 -0.106046 0.369239
    3
          0.738478 -0.228456 0.054902
    4
          0.101741 0.777568 0.054902
                                           0 -0.636737
                                                       1.006023 0.050871
    3639 0.915688 -2.017489 -1.236468
                                           2 2.374675 -1.824629 0.457844
    3640 -1.934203 0.914925 -0.477162
                                           2 -2.849891 2.932414 -0.967102
    3641 -0.222845 0.747304 0.054291
                                           2 1.711359 -0.167621 -0.111422
    3642 -0.349423 0.067261 -0.004963
                                           2 -0.126579 -0.680043 -0.174712
    3643 -0.402428 0.406218 0.001145
                                           VelY
    0
          0.000000
    1
         -0.541246
    2
         -0.061205
    3
         -0.114228
          0.388784
    3639 -1.008745
    3640 0.457462
    3641 0.373652
    3642 0.033630
    3643 0.203109
    [3644 rows x 8 columns]
```

#### 0.0.2 Normalize data

```
[]: X train = df training.drop(columns=["Class"])
     X_train = (X_train - X_train.mean()) / X_train.std() * 100
     X_train["Class"] = df_training["Class"]
     X_{train}
[]:
                                          GyroZ
                                                   DiffAccX
                                                                DiffAccY
                                                                                VelX \
                 AccX
                             AccY
     0
            -4.105593
                                                                           -4.105593
                         8.126800
                                      81.244480
                                                   0.010300
                                                               -0.010421
     1
          -168.957027 -111.696347
                                     110.286351 -151.542377 -101.201825 -168.957027
     2
           -64.437130
                        -5.422989
                                      69.099704
                                                  96.098456
                                                               89.738101
                                                                          -64.437130
     3
            70.817107
                       -17.161393
                                      40.585870
                                                 124.353421
                                                               -9.923577
                                                                           70.817107
     4
             6.216602
                        94.197287
                                      40.585870
                                                 -59.378806
                                                               94.032688
                                                                            6.216602
     3639
            88.795978 -215.193071 -1075.677828
                                                 221.498566 -170.576840
                                                                           88.795978
     3640 -200.341232
                       109.401604
                                    -419.331681 -265.801873
                                                             274.111831 -200.341232
     3641
          -26.714411
                        90.847295
                                      40.057837
                                                 159.630443
                                                             -15.679652
                                                                          -26.714411
     3642
          -39.556507
                        15.572024
                                     -11.161455
                                                 -11.795809
                                                             -63.580862
                                                                          -39.556507
     3643 -44.934120
                        53.091875
                                      -5.881115
                                                                         -44.934120
                                                  -4.933494
                                                              31.675331
                 VelY
                       Class
     0
             8.126800
     1
          -111.696347
                           0
     2
            -5.422989
     3
           -17.161393
     4
            94.197287
     3639 -215.193071
                           2
     3640 109.401604
                           2
     3641
            90.847295
                           2
     3642
            15.572024
                           2
                           2
     3643
            53.091875
     [3644 rows x 8 columns]
[]: X_testing = df_test.drop(columns="Class")
     X_testing = (X_testing - X_testing.mean()) / X_testing.std() * 100
     X_testing["Class"] = df_test["Class"]
     X_testing
[]:
                 AccX
                             AccY
                                         GyroZ
                                                  DiffAccX
                                                              DiffAccY
                                                                               VelX
            67.345100
                        -9.509000
                                    -10.104756
                                                                        -10.948927
     0
                                                 -0.021340
                                                              -0.012385
     1
            57.982946
                        10.303100
                                    188.298737
                                                 -8.494392
                                                              16.758078
                                                                          58.012497
     2
           270.452050 -824.010358
                                    -43.597957
                                                192.270076 -706.238535
                                                                         270.496822
     3
           229.805029 -828.171460
                                    -55.972952
                                                -36.808209
                                                             -3.534656
                                                                         229.846889
           283.133326 -732.402479
                                     20.967248
                                                 48.242495
                                                             81.053740
                                                                         283.179007
```

```
3079 -84.712435
                 -57.627689 445.483427
                                         -73.609489
                                                       -1.097380 -84.693107
3080 145.444037
                   51.068429 -604.239195 208.277716
                                                       91.996249
                                                                  145.479853
3081 121.268079 -177.287100 -422.380477 -21.901364 -193.309813 121.302164
3082
      83.265000
                   79.069807
                             347.559582 -34.415357
                                                      216.987532
                                                                   83.296362
3083 140.063424
                   35.612446
                              57.016155
                                          51.383072 -36.797989 140.098855
           VelY Class
0
       14.564454
1
       10.295271
                      1
2
    -824.016540
3
    -828.177633
    -732.408842
                      2
3079 -57.635384
3080
      51.060520
                      2
                      2
3081 -177.294558
      79.061842
                      2
3082
3083
       35.604567
                      2
[3084 rows x 8 columns]
```

## 0.0.3 Change data to percentiles

```
[]: """X_n_quantile = pd.DataFrame(columns=df_training.columns)

quantiles = [0.05, 0.25, 0.5, 0.75, 0.90]
columns = ["AccX", "AccY", "DiffAccX", "DiffAccY", "Class"]

for column in columns:
    data_quantiles = []
    for quan in quantiles:
        if(quan == "Class"):
            data_quantiles.append(int(X_n[column].quantile(quan)))
        else:
            data_quantiles.append(X_n[column].quantile(quan))

X_n_quantile[column] = data_quantiles

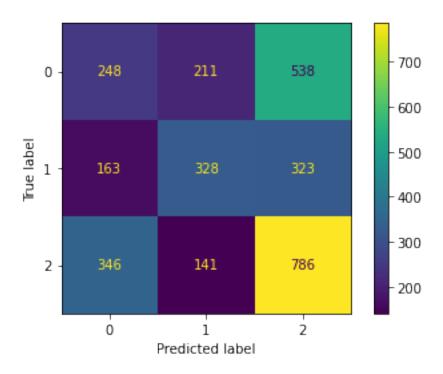
X_n_quantile"""
```

X\_n\_quantile[column] = data\_quantiles\n\nX\_n\_quantile'

#### 0.0.4 Balance data

### 0.1 Train model

```
[]: X_training = X_train.drop(columns="Class")
    y_training = X_train.Class
    X_test = X_testing.drop(columns="Class")
    y_test = X_testing.Class
[]: from sklearn.ensemble import RandomForestClassifier
    from sklearn.model_selection import GridSearchCV, RandomizedSearchCV
    from sklearn.metrics import confusion_matrix, ConfusionMatrixDisplay
[]: rfc = RandomForestClassifier(n_estimators=30, max_depth=15, random_state=5,_
     ⇔criterion="entropy")
    rfc.fit(X_training, y_training)
[]: RandomForestClassifier(criterion='entropy', max_depth=15, n_estimators=30,
                           random_state=5)
[]: rfc.score(X_training, y_training)
[]: 0.8210757409440176
[]: rfc.score(X_test, y_test)
[]: 0.44163424124513617
[ ]: y_pred = rfc.predict(X_test)
    CM = confusion_matrix(y_test, y_pred)
    display = ConfusionMatrixDisplay(confusion_matrix=CM,
                           display_labels=rfc.classes_)
    display.plot()
[]: <sklearn.metrics._plot.confusion_matrix.ConfusionMatrixDisplay at 0x29627faf0>
```



[]: <sklearn.metrics.\_plot.confusion\_matrix.ConfusionMatrixDisplay at 0x2967113c0>

```
0.6
             0.25
                              0.21
                                                0.54
    0
                                                                   - 0.5
Frue label
                                                                   0.4
              0.2
                                                 0.4
                               0.4
                                                                  - 0.3
    2
             0.27
                              0.11
                                                                  - 0.2
                                                0.62
               0
                                1
                                                  2
                        Predicted label
```

```
[]: rfc.score(X_test, y_test)
[]: 0.44163424124513617
[]: rfc_imp = pd.DataFrame(rfc.feature_importances_, columns=['importance'])
[]: rfc_imp['importance'] = rfc_imp['importance'] * 100
     rfc_imp = rfc_imp.set_index(X_training.columns)
     rfc_imp
[]:
               importance
     AccX
                13.547156
    AccY
                14.798800
     GyroZ
                13.424925
    DiffAccX
                14.207226
    DiffAccY
                15.053569
    VelX
                13.623636
    VelY
                15.344688
[]: rfc_imp.sort_values(by='importance', ascending=False)
[]:
               importance
                15.344688
     VelY
     DiffAccY
                15.053569
     AccY
                14.798800
```

```
DiffAccX 14.207226
VelX 13.623636
AccX 13.547156
GyroZ 13.424925
```

#### 0.1.1 Train model with RandomSearchCV

Fitting 5 folds for each of 400 candidates, totalling 2000 fits [CV 2/5; 1/400] START bootstrap=False, max\_depth=None, max\_features=None,

```
min_samples_leaf=3, min_samples_split=7, n_estimators=108
[CV 5/5; 2/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=16
[CV 3/5; 2/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=2, min samples split=2, n estimators=16
[CV 4/5; 1/400] START bootstrap=False, max_depth=None, max_features=None,
min samples leaf=3, min samples split=7, n estimators=108
[CV 3/5; 1/400] START bootstrap=False, max_depth=None, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108
[CV 5/5; 1/400] START bootstrap=False, max_depth=None, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108
[CV 4/5; 2/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=16
[CV 1/5; 2/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=16
[CV 1/5; 1/400] START bootstrap=False, max_depth=None, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108
[CV 2/5; 2/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=16
[CV 3/5; 2/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=16;, score=0.401 total
time= 0.1s
[CV 4/5; 2/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=16;, score=0.374 total
time= 0.1s
[CV 1/5; 2/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=2, min samples split=2, n estimators=16;, score=0.428 total
time=
       0.1s
[CV 5/5; 2/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=16;, score=0.415 total
time=
      0.1s
[CV 1/5; 3/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=80
[CV 2/5; 3/400] START bootstrap=False, max_depth=16, max_features=None,
min samples leaf=1, min samples split=4, n estimators=80
[CV 3/5; 3/400] START bootstrap=False, max_depth=16, max_features=None,
min samples leaf=1, min samples split=4, n estimators=80
[CV 2/5; 2/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=16;, score=0.403 total
time=
      0.1s
[CV 4/5; 3/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=80
[CV 5/5; 3/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=80
[CV 1/5; 3/400] END bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=80;, score=0.409 total
time=
       2.6s
[CV 1/5; 4/400] START bootstrap=False, max_depth=7, max_features=None,
```

```
min_samples_leaf=2, min_samples_split=9, n_estimators=88
[CV 2/5; 3/400] END bootstrap=False, max depth=16, max features=None,
min samples leaf=1, min samples split=4, n estimators=80;, score=0.399 total
time=
       2.6s
[CV 2/5; 4/400] START bootstrap=False, max depth=7, max features=None,
min samples leaf=2, min samples split=9, n estimators=88
[CV 5/5; 3/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=80;, score=0.383 total
time=
       2.6s
[CV 3/5; 4/400] START bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=88
[CV 3/5; 3/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=80;, score=0.383 total
time=
        2.7s
[CV 4/5; 4/400] START bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=88
[CV 4/5; 3/400] END bootstrap=False, max_depth=16, max_features=None,
min samples leaf=1, min samples split=4, n estimators=80;, score=0.390 total
time=
      2.7s
[CV 5/5; 4/400] START bootstrap=False, max depth=7, max features=None,
min samples leaf=2, min samples split=9, n estimators=88
[CV 1/5; 4/400] END bootstrap=False, max depth=7, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=88;, score=0.402 total
time=
      1.5s
[CV 1/5; 5/400] START bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=102
[CV 4/5; 1/400] END bootstrap=False, max_depth=None, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108;, score=0.366 total
[CV 4/5; 4/400] END bootstrap=False, max_depth=7, max_features=None,
min samples leaf=2, min samples split=9, n estimators=88;, score=0.370 total
time= 1.5s
[CV 2/5; 5/400] START bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=102
[CV 2/5; 4/400] END bootstrap=False, max depth=7, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=88;, score=0.390 total
time= 1.5s
[CV 3/5; 5/400] START bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=102
[CV 4/5; 5/400] START bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=102
[CV 3/5; 4/400] END bootstrap=False, max_depth=7, max_features=None,
min samples leaf=2, min samples split=9, n estimators=88;, score=0.343 total
time=
       1.5s
[CV 5/5; 5/400] START bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=102
[CV 2/5; 1/400] END bootstrap=False, max_depth=None, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108;, score=0.416 total
```

```
4.3s
time=
[CV 1/5; 6/400] START bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=108
[CV 5/5; 4/400] END bootstrap=False, max_depth=7, max_features=None,
min samples leaf=2, min samples split=9, n estimators=88;, score=0.338 total
time=
        1.5s
[CV 2/5; 6/400] START bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=108
[CV 5/5; 1/400] END bootstrap=False, max depth=None, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108;, score=0.405 total
time= 4.4s
[CV 3/5; 6/400] START bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=108
[CV 1/5; 1/400] END bootstrap=False, max_depth=None, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108;, score=0.385 total
time= 4.7s
[CV 4/5; 6/400] START bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=108
[CV 3/5; 1/400] END bootstrap=False, max_depth=None, max_features=None,
min samples leaf=3, min samples split=7, n estimators=108;, score=0.353 total
time=
      5.2s
[CV 5/5; 6/400] START bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=108
[CV 2/5; 5/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=102;, score=0.402 total
       1.1s
[CV 1/5; 6/400] END bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=108;, score=0.425 total
[CV 1/5; 7/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=18
[CV 2/5; 7/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=18
[CV 3/5; 5/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min samples leaf=2, min samples split=5, n estimators=102;, score=0.377 total
time=
      1.1s
[CV 3/5; 7/400] START bootstrap=True, max depth=None, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=18
[CV 5/5; 5/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=102;, score=0.411 total
time=
      1.1s
[CV 4/5; 7/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=18
[CV 1/5; 5/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=102;, score=0.431 total
[CV 3/5; 6/400] END bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=108;, score=0.372 total
```

```
time=
        1.0s
[CV 5/5; 7/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=18
[CV 1/5; 8/400] START bootstrap=True, max_depth=None, max_features=None,
min samples leaf=1, min samples split=4, n estimators=52
[CV 4/5; 5/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min samples leaf=2, min samples split=5, n estimators=102;, score=0.394 total
time= 1.2s
[CV 2/5; 6/400] END bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=108;, score=0.403 total
time= 1.1s
[CV 2/5; 8/400] START bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=52
[CV 3/5; 8/400] START bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=52
[CV 2/5; 7/400] END bootstrap=True, max depth=None, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=18;, score=0.374 total
time= 0.1s
[CV 1/5; 7/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=18;, score=0.427 total
time= 0.1s
[CV 4/5; 8/400] START bootstrap=True, max depth=None, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=52
[CV 5/5; 8/400] START bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=52
[CV 3/5; 7/400] END bootstrap=True, max depth=None, max features=sqrt,
min samples leaf=2, min samples split=3, n estimators=18;, score=0.398 total
time=
      0.1s
[CV 1/5; 9/400] START bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=36
[CV 4/5; 7/400] END bootstrap=True, max depth=None, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=18;, score=0.370 total
time=
      0.2s
[CV 5/5; 7/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min samples leaf=2, min samples split=3, n estimators=18;, score=0.420 total
time= 0.1s
[CV 2/5; 9/400] START bootstrap=True, max depth=11, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=36
[CV 3/5; 9/400] START bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=36
[CV 4/5; 6/400] END bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=108;, score=0.374 total
[CV 4/5; 9/400] START bootstrap=True, max depth=11, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=36
[CV 3/5; 9/400] END bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=36;, score=0.398 total
time=
      0.5s
```

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[CV 2/5; 9/400] END bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=36;, score=0.376 total
time=
       0.5s
[CV 5/5; 9/400] START bootstrap=True, max_depth=11, max_features=None,
min samples leaf=3, min samples split=2, n estimators=36
[CV 1/5; 10/400] START bootstrap=False, max depth=8, max features=None,
min samples leaf=2, min samples split=8, n estimators=36
[CV 1/5; 9/400] END bootstrap=True, max depth=11, max features=None,
min samples leaf=3, min samples split=2, n estimators=36;, score=0.453 total
time=
      0.6s
[CV 2/5; 10/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=36
[CV 4/5; 9/400] END bootstrap=True, max_depth=11, max_features=None,
min samples leaf=3, min samples split=2, n estimators=36;, score=0.390 total
[CV 3/5; 10/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=36
[CV 5/5; 6/400] END bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=108;, score=0.415 total
time=
      1.0s
[CV 4/5; 10/400] START bootstrap=False, max depth=8, max features=None,
min samples leaf=2, min samples split=8, n estimators=36
[CV 5/5; 9/400] END bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=36;, score=0.423 total
time= 0.4s
[CV 5/5; 10/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=36
[CV 2/5; 8/400] END bootstrap=True, max depth=None, max features=None,
min samples leaf=1, min samples split=4, n estimators=52;, score=0.372 total
time=
      1.1s
[CV 1/5; 11/400] START bootstrap=True, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=130
[CV 4/5; 8/400] END bootstrap=True, max depth=None, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=52;, score=0.374 total
time=
      1.1s
[CV 2/5; 11/400] START bootstrap=True, max depth=19, max features=sqrt,
min samples leaf=1, min samples split=9, n estimators=130
[CV 3/5; 8/400] END bootstrap=True, max depth=None, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=52;, score=0.410 total
time=
      1.2s
[CV 3/5; 11/400] START bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=130
[CV 5/5; 8/400] END bootstrap=True, max depth=None, max features=None,
min samples leaf=1, min samples split=4, n estimators=52;, score=0.448 total
time=
       1.2s
[CV 1/5; 8/400] END bootstrap=True, max depth=None, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=52;, score=0.402 total
time=
      1.2s
```

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[CV 4/5; 11/400] START bootstrap=True, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=130
[CV 5/5; 11/400] START bootstrap=True, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=130
[CV 1/5; 10/400] END bootstrap=False, max depth=8, max features=None,
min samples leaf=2, min samples split=8, n estimators=36;, score=0.416 total
time= 0.6s
[CV 1/5; 12/400] START bootstrap=False, max depth=19, max features=sqrt,
min samples leaf=1, min samples split=9, n estimators=156
[CV 2/5; 10/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=2, min samples split=8, n estimators=36;, score=0.373 total
      0.7s
time=
[CV 2/5; 12/400] START bootstrap=False, max_depth=19, max_features=sqrt,
min samples leaf=1, min samples split=9, n estimators=156
[CV 4/5; 10/400] END bootstrap=False, max depth=8, max features=None,
min samples leaf=2, min samples split=8, n estimators=36;, score=0.353 total
time=
      0.7s
[CV 3/5; 12/400] START bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=156
[CV 3/5; 10/400] END bootstrap=False, max depth=8, max features=None,
min samples leaf=2, min samples split=8, n estimators=36;, score=0.348 total
time= 0.7s
[CV 4/5; 12/400] START bootstrap=False, max depth=19, max features=sqrt,
min samples leaf=1, min samples split=9, n estimators=156
[CV 5/5; 10/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=2, min samples split=8, n estimators=36;, score=0.380 total
time=
      0.6s
[CV 5/5; 12/400] START bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=156
[CV 1/5; 11/400] END bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=130;, score=0.425 total
time= 0.9s
[CV 1/5; 13/400] START bootstrap=False, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=112
[CV 4/5; 11/400] END bootstrap=True, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=130;, score=0.401 total
time= 0.9s
[CV 5/5; 11/400] END bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=130;, score=0.434 total
time= 0.9s
[CV 2/5; 11/400] END bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=130;, score=0.388 total
time= 0.9s
[CV 2/5; 13/400] START bootstrap=False, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=112
[CV 3/5; 11/400] END bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=130;, score=0.414 total
time=
       0.9s
```

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[CV 3/5; 13/400] START bootstrap=False, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=112
[CV 4/5; 13/400] START bootstrap=False, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=112
[CV 5/5; 13/400] START bootstrap=False, max depth=6, max features=None,
min samples leaf=1, min samples split=9, n estimators=112
[CV 2/5; 12/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=156;, score=0.405 total
time=
      1.6s
[CV 1/5; 12/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=156;, score=0.412 total
[CV 1/5; 14/400] START bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=182
[CV 2/5; 14/400] START bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=182
[CV 3/5; 12/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=156;, score=0.377 total
time=
      1.7s
[CV 3/5; 14/400] START bootstrap=True, max depth=12, max features=sqrt,
min samples leaf=2, min samples split=4, n estimators=182
[CV 4/5; 12/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=156;, score=0.399 total
time=
      1.7s
[CV 4/5; 14/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=182
[CV 5/5; 12/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=156;, score=0.393 total
[CV 5/5; 14/400] START bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=182
[CV 3/5; 13/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=112;, score=0.357 total
time=
      1.5s
[CV 1/5; 15/400] START bootstrap=False, max depth=16, max features=None,
min samples leaf=3, min samples split=5, n estimators=16
[CV 1/5; 13/400] END bootstrap=False, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=112;, score=0.406 total
time= 1.6s
[CV 2/5; 15/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=16
[CV 2/5; 13/400] END bootstrap=False, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=112;, score=0.391 total
time=
       1.6s
[CV 3/5; 15/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=16
[CV 5/5; 13/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=112;, score=0.386 total
```

```
time=
        1.6s
[CV 4/5; 13/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=112;, score=0.374 total
      1.6s
[CV 4/5; 15/400] START bootstrap=False, max depth=16, max features=None,
min samples leaf=3, min samples split=5, n estimators=16
[CV 5/5; 15/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=16
[CV 2/5; 14/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=182;, score=0.409 total
time= 0.8s
[CV 1/5; 16/400] START bootstrap=True, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=104
[CV 1/5; 14/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=182;, score=0.428 total
time= 1.0s
[CV 2/5; 16/400] START bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=104
[CV 4/5; 14/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=2, min samples split=4, n estimators=182;, score=0.381 total
time=
      0.9s
[CV 3/5; 16/400] START bootstrap=True, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=104
[CV 1/5; 15/400] END bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=16;, score=0.416 total
time=
      0.5s
[CV 4/5; 16/400] START bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=104
[CV 2/5; 15/400] END bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=16;, score=0.401 total
time=
      0.5s
[CV 5/5; 16/400] START bootstrap=True, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=104
[CV 3/5; 15/400] END bootstrap=False, max_depth=16, max_features=None,
min samples leaf=3, min samples split=5, n estimators=16;, score=0.390 total
time= 0.5s
[CV 5/5; 15/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=16;, score=0.398 total
time= 0.5s
[CV 1/5; 17/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=192
[CV 4/5; 15/400] END bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=16;, score=0.390 total
time=
      0.5s
[CV 2/5; 17/400] START bootstrap=True, max depth=17, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=192
[CV 3/5; 14/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=182;, score=0.387 total
```

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time=
        1.1s
[CV 3/5; 17/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=192
[CV 4/5; 17/400] START bootstrap=True, max_depth=17, max_features=None,
min samples leaf=3, min samples split=3, n estimators=192
[CV 5/5; 14/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=2, min samples split=4, n estimators=182;, score=0.424 total
time= 0.9s
[CV 5/5; 17/400] START bootstrap=True, max depth=17, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=192
[CV 1/5; 16/400] END bootstrap=True, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=104;, score=0.433 total
time=
      0.6s
[CV 1/5; 18/400] START bootstrap=True, max depth=7, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=124
[CV 2/5; 16/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=104;, score=0.406 total
time= 0.6s
[CV 2/5; 18/400] START bootstrap=True, max_depth=7, max_features=None,
min samples leaf=1, min samples split=6, n estimators=124
[CV 3/5; 16/400] END bootstrap=True, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=104;, score=0.385 total
time= 0.6s
[CV 3/5; 18/400] START bootstrap=True, max depth=7, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=124
[CV 4/5; 16/400] END bootstrap=True, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=104;, score=0.401 total
time=
      0.6s
[CV 4/5; 18/400] START bootstrap=True, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=124
[CV 5/5; 16/400] END bootstrap=True, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=104;, score=0.413 total
time=
      0.6s
[CV 5/5; 18/400] START bootstrap=True, max_depth=7, max_features=None,
min samples leaf=1, min samples split=6, n estimators=124
[CV 2/5; 18/400] END bootstrap=True, max_depth=7, max_features=None,
min samples leaf=1, min samples split=6, n estimators=124;, score=0.392 total
time=
      1.3s
[CV 1/5; 19/400] START bootstrap=False, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=104
[CV 3/5; 18/400] END bootstrap=True, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=124;, score=0.368 total
[CV 1/5; 18/400] END bootstrap=True, max depth=7, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=124;, score=0.418 total
[CV 2/5; 19/400] START bootstrap=False, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=104
```

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[CV 3/5; 19/400] START bootstrap=False, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=104
[CV 4/5; 18/400] END bootstrap=True, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=124;, score=0.373 total
time= 1.3s
[CV 4/5; 19/400] START bootstrap=False, max depth=15, max features=sqrt,
min samples leaf=3, min samples split=3, n estimators=104
[CV 5/5; 18/400] END bootstrap=True, max_depth=7, max_features=None,
min samples leaf=1, min samples split=6, n estimators=124;, score=0.408 total
time=
      1.3s
[CV 5/5; 19/400] START bootstrap=False, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=104
[CV 1/5; 19/400] END bootstrap=False, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=104;, score=0.442 total
       0.9s
[CV 1/5; 20/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=142
[CV 2/5; 19/400] END bootstrap=False, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=104;, score=0.396 total
time=
      1.0s
[CV 3/5; 19/400] END bootstrap=False, max depth=15, max features=sqrt,
min samples leaf=3, min samples split=3, n estimators=104;, score=0.391 total
      1.0s
[CV 2/5; 20/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=142
[CV 3/5; 20/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=142
[CV 4/5; 19/400] END bootstrap=False, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=104;, score=0.405 total
time=
      0.9s
[CV 4/5; 20/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=142
[CV 5/5; 19/400] END bootstrap=False, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=104;, score=0.412 total
time=
      1.0s
[CV 5/5; 20/400] START bootstrap=False, max depth=12, max features=None,
min samples leaf=1, min samples split=5, n estimators=142
[CV 1/5; 17/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=192;, score=0.429 total
time=
      3.6s
[CV 1/5; 21/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=58
[CV 2/5; 17/400] END bootstrap=True, max depth=17, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=192;, score=0.394 total
time=
       3.7s
[CV 2/5; 21/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=58
[CV 5/5; 17/400] END bootstrap=True, max_depth=17, max_features=None,
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min_samples_leaf=3, min_samples_split=3, n_estimators=192;, score=0.433 total
time=
      3.7s
[CV 3/5; 21/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=58
[CV 4/5; 17/400] END bootstrap=True, max depth=17, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=192;, score=0.399 total
time= 3.7s
[CV 4/5; 21/400] START bootstrap=False, max depth=5, max features=None,
min samples leaf=3, min samples split=3, n estimators=58
[CV 3/5; 17/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=192;, score=0.421 total
time=
       3.8s
[CV 5/5; 21/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=58
[CV 1/5; 21/400] END bootstrap=False, max depth=5, max features=None,
min samples leaf=3, min samples split=3, n estimators=58;, score=0.407 total
time=
      0.7s
[CV 1/5; 22/400] START bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=48
[CV 3/5; 21/400] END bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=58;, score=0.348 total
time= 0.6s
[CV 2/5; 22/400] START bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=48
[CV 4/5; 21/400] END bootstrap=False, max_depth=5, max_features=None,
min samples leaf=3, min samples split=3, n estimators=58;, score=0.381 total
time=
      0.7s
[CV 3/5; 22/400] START bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=48
[CV 2/5; 21/400] END bootstrap=False, max_depth=5, max_features=None,
min samples leaf=3, min samples split=3, n estimators=58;, score=0.379 total
time= 0.7s
[CV 4/5; 22/400] START bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=48
[CV 5/5; 21/400] END bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=58;, score=0.386 total
time= 0.7s
[CV 5/5; 22/400] START bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=48
[CV 1/5; 22/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=48;, score=0.414 total
      0.2s
time=
[CV 1/5; 23/400] START bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=180
[CV 2/5; 22/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min samples leaf=2, min samples split=8, n estimators=48;, score=0.410 total
time=
      0.2s
[CV 2/5; 23/400] START bootstrap=True, max depth=18, max features=sqrt,
```

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min_samples_leaf=3, min_samples_split=2, n_estimators=180
[CV 3/5; 22/400] END bootstrap=False, max depth=5, max features=sqrt,
min samples leaf=2, min samples split=8, n estimators=48;, score=0.359 total
time= 0.2s
[CV 3/5; 23/400] START bootstrap=True, max depth=18, max features=sqrt,
min samples leaf=3, min samples split=2, n estimators=180
[CV 4/5; 22/400] END bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=48;, score=0.392 total
time=
      0.2s
[CV 4/5; 23/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=180
[CV 5/5; 22/400] END bootstrap=False, max depth=5, max features=sqrt,
min samples leaf=2, min samples split=8, n estimators=48;, score=0.385 total
time=
       0.2s
[CV 5/5; 23/400] START bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=180
[CV 1/5; 23/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=180;, score=0.425 total
time=
      1.1s
[CV 2/5; 23/400] END bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=180;, score=0.399 total
time= 1.1s
[CV 1/5; 24/400] START bootstrap=False, max depth=11, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=174
[CV 2/5; 24/400] START bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=174
[CV 3/5; 23/400] END bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=180;, score=0.398 total
[CV 3/5; 24/400] START bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=174
[CV 4/5; 23/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=180;, score=0.401 total
time=
      1.1s
[CV 4/5; 24/400] START bootstrap=False, max depth=11, max features=sqrt,
min samples leaf=1, min samples split=3, n estimators=174
[CV 5/5; 23/400] END bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=180;, score=0.423 total
time= 1.2s
[CV 5/5; 24/400] START bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=174
[CV 1/5; 20/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=142;, score=0.424 total
time=
       3.5s
[CV 1/5; 25/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=184
[CV 3/5; 20/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=142;, score=0.332 total
```

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time=
        3.5s
[CV 2/5; 25/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=184
[CV 2/5; 20/400] END bootstrap=False, max_depth=12, max_features=None,
min samples leaf=1, min samples split=5, n estimators=142;, score=0.383 total
time=
       3.6s
[CV 3/5; 25/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=184
[CV 5/5; 20/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=142;, score=0.376 total
time=
      3.6s
[CV 4/5; 25/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=184
[CV 4/5; 20/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=142;, score=0.364 total
time=
      3.6s
[CV 5/5; 25/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=184
[CV 1/5; 24/400] END bootstrap=False, max_depth=11, max_features=sqrt,
min samples leaf=1, min samples split=3, n estimators=174;, score=0.399 total
time=
      1.3s
[CV 1/5; 26/400] START bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166
[CV 2/5; 24/400] END bootstrap=False, max depth=11, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=174;, score=0.392 total
time=
       1.3s
[CV 2/5; 26/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166
[CV 3/5; 24/400] END bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=174;, score=0.362 total
time=
      1.4s
[CV 3/5; 26/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166
[CV 4/5; 24/400] END bootstrap=False, max_depth=11, max_features=sqrt,
min samples leaf=1, min samples split=3, n estimators=174;, score=0.364 total
time= 1.3s
[CV 4/5; 26/400] START bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166
[CV 5/5; 24/400] END bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=174;, score=0.416 total
time=
      1.3s
[CV 5/5; 26/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166
[CV 1/5; 26/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166;, score=0.429 total
[CV 1/5; 27/400] START bootstrap=True, max depth=16, max features=None,
```

min\_samples\_leaf=3, min\_samples\_split=3, n\_estimators=44

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[CV 2/5; 26/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166;, score=0.416 total
time=
      1.0s
[CV 2/5; 27/400] START bootstrap=True, max_depth=16, max_features=None,
min samples leaf=3, min samples split=3, n estimators=44
[CV 3/5; 26/400] END bootstrap=True, max depth=16, max features=sqrt,
min samples leaf=2, min samples split=5, n estimators=166;, score=0.395 total
time=
      1.0s
[CV 4/5; 26/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166;, score=0.407 total
time= 1.0s
[CV 3/5; 27/400] START bootstrap=True, max depth=16, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=44
[CV 4/5; 27/400] START bootstrap=True, max depth=16, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=44
[CV 5/5; 26/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166;, score=0.427 total
time= 1.1s
[CV 5/5; 27/400] START bootstrap=True, max_depth=16, max_features=None,
min samples leaf=3, min samples split=3, n estimators=44
[CV 1/5; 27/400] END bootstrap=True, max depth=16, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=44;, score=0.444 total
time= 0.8s
[CV 1/5; 28/400] START bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=190
[CV 2/5; 27/400] END bootstrap=True, max depth=16, max features=None,
min samples leaf=3, min samples split=3, n estimators=44;, score=0.388 total
time=
      0.8s
[CV 2/5; 28/400] START bootstrap=False, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=190
[CV 4/5; 27/400] END bootstrap=True, max depth=16, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=44;, score=0.390 total
time=
      0.8s
[CV 3/5; 28/400] START bootstrap=False, max_depth=16, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=190
[CV 3/5; 27/400] END bootstrap=True, max_depth=16, max_features=None,
min samples leaf=3, min samples split=3, n estimators=44;, score=0.407 total
time=
      0.8s
[CV 4/5; 28/400] START bootstrap=False, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=190
[CV 5/5; 27/400] END bootstrap=True, max_depth=16, max_features=None,
min samples leaf=3, min samples split=3, n estimators=44;, score=0.435 total
      0.8s
[CV 5/5; 28/400] START bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=190
[CV 1/5; 28/400] END bootstrap=False, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=190;, score=0.439 total
time=
      1.7s
```

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[CV 1/5; 29/400] START bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=114
[CV 2/5; 28/400] END bootstrap=False, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=190;, score=0.402 total
time= 1.8s
[CV 2/5; 29/400] START bootstrap=True, max depth=5, max features=None,
min samples leaf=1, min samples split=9, n estimators=114
[CV 4/5; 28/400] END bootstrap=False, max_depth=16, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=190;, score=0.401 total
time=
      1.8s
[CV 3/5; 29/400] START bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=114
[CV 3/5; 28/400] END bootstrap=False, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=190;, score=0.391 total
[CV 4/5; 29/400] START bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=114
[CV 5/5; 28/400] END bootstrap=False, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=190;, score=0.404 total
time=
      1.7s
[CV 5/5; 29/400] START bootstrap=True, max depth=5, max features=None,
min samples leaf=1, min samples split=9, n estimators=114
[CV 1/5; 29/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=114;, score=0.412 total
time= 1.1s
[CV 1/5; 30/400] START bootstrap=True, max depth=18, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=30
[CV 2/5; 29/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=114;, score=0.398 total
time=
      1.1s
[CV 2/5; 30/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=30
[CV 3/5; 29/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=114;, score=0.350 total
time=
      1.1s
[CV 3/5; 30/400] START bootstrap=True, max depth=18, max features=None,
min samples leaf=2, min samples split=2, n estimators=30
[CV 4/5; 29/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=114;, score=0.374 total
      1.1s
time=
[CV 4/5; 30/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=30
[CV 5/5; 29/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=114;, score=0.386 total
time=
       1.1s
[CV 5/5; 30/400] START bootstrap=True, max depth=18, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=30
[CV 1/5; 25/400] END bootstrap=False, max_depth=16, max_features=None,
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min_samples_leaf=2, min_samples_split=5, n_estimators=184;, score=0.409 total
time=
      5.9s
[CV 1/5; 31/400] START bootstrap=False, max depth=9, max features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=172
[CV 2/5; 25/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=184;, score=0.396 total
time= 5.9s
[CV 2/5; 31/400] START bootstrap=False, max depth=9, max features=None,
min samples leaf=3, min samples split=8, n estimators=172
[CV 4/5; 25/400] END bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=184;, score=0.391 total
       5.8s
time=
[CV 3/5; 31/400] START bootstrap=False, max depth=9, max features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=172
[CV 5/5; 25/400] END bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=184;, score=0.398 total
time=
      5.9s
[CV 4/5; 31/400] START bootstrap=False, max depth=9, max features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=172
[CV 1/5; 30/400] END bootstrap=True, max depth=18, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=30;, score=0.425 total
time= 0.6s
[CV 5/5; 31/400] START bootstrap=False, max depth=9, max features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=172
[CV 3/5; 25/400] END bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=184;, score=0.391 total
time=
      6.1s
[CV 1/5; 32/400] START bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=148
[CV 2/5; 30/400] END bootstrap=True, max_depth=18, max_features=None,
min samples leaf=2, min samples split=2, n estimators=30;, score=0.384 total
[CV 4/5; 30/400] END bootstrap=True, max depth=18, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=30;, score=0.396 total
time= 0.5s
[CV 2/5; 32/400] START bootstrap=True, max depth=16, max features=sqrt,
min samples leaf=3, min samples split=4, n estimators=148
[CV 3/5; 32/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=148
[CV 3/5; 30/400] END bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=30;, score=0.410 total
      0.7s
time=
[CV 4/5; 32/400] START bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=148
[CV 5/5; 30/400] END bootstrap=True, max_depth=18, max_features=None,
min samples leaf=2, min samples split=2, n estimators=30;, score=0.448 total
time=
      0.7s
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[CV 5/5; 32/400] START bootstrap=True, max depth=16, max features=sqrt,

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min_samples_leaf=3, min_samples_split=4, n_estimators=148
[CV 1/5; 32/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=148;, score=0.443 total
time= 1.0s
[CV 1/5; 33/400] START bootstrap=False, max depth=10, max features=sqrt,
min samples leaf=1, min samples split=7, n estimators=36
[CV 2/5; 32/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=148;, score=0.402 total
time=
      1.0s
[CV 2/5; 33/400] START bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=36
[CV 3/5; 32/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=148;, score=0.406 total
time=
      1.0s
[CV 3/5; 33/400] START bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=36
[CV 4/5; 32/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=148;, score=0.401 total
time=
      1.0s
[CV 4/5; 33/400] START bootstrap=False, max depth=10, max features=sqrt,
min samples leaf=1, min samples split=7, n estimators=36
[CV 1/5; 33/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=36;, score=0.425 total
time=
      0.3s
[CV 5/5; 33/400] START bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=36
[CV 2/5; 33/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min samples leaf=1, min samples split=7, n estimators=36;, score=0.388 total
[CV 1/5; 34/400] START bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=70
[CV 5/5; 32/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=148;, score=0.427 total
time=
      1.0s
[CV 2/5; 34/400] START bootstrap=False, max_depth=17, max_features=None,
min samples leaf=2, min samples split=2, n estimators=70
[CV 3/5; 33/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=36;, score=0.368 total
time= 0.3s
[CV 3/5; 34/400] START bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=70
[CV 4/5; 33/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min samples leaf=1, min samples split=7, n estimators=36;, score=0.369 total
time=
      0.2s
[CV 5/5; 33/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min samples leaf=1, min samples split=7, n estimators=36;, score=0.409 total
time=
      0.2s
[CV 4/5; 34/400] START bootstrap=False, max_depth=17, max_features=None,
```

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min_samples_leaf=2, min_samples_split=2, n_estimators=70
[CV 5/5; 34/400] START bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=70
[CV 1/5; 31/400] END bootstrap=False, max_depth=9, max_features=None,
min samples leaf=3, min samples split=8, n estimators=172;, score=0.399 total
time=
       3.6s
[CV 1/5; 35/400] START bootstrap=False, max depth=13, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=42
[CV 2/5; 31/400] END bootstrap=False, max depth=9, max features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=172;, score=0.384 total
time=
       3.6s
[CV 2/5; 35/400] START bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=42
[CV 4/5; 31/400] END bootstrap=False, max depth=9, max features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=172;, score=0.347 total
time=
      3.5s
[CV 3/5; 35/400] START bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=42
[CV 3/5; 31/400] END bootstrap=False, max_depth=9, max_features=None,
min samples leaf=3, min samples split=8, n estimators=172;, score=0.350 total
time= 3.6s
[CV 4/5; 35/400] START bootstrap=False, max depth=13, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=42
[CV 2/5; 34/400] END bootstrap=False, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=70;, score=0.416 total
time=
       2.2s
[CV 5/5; 35/400] START bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=42
[CV 5/5; 31/400] END bootstrap=False, max depth=9, max features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=172;, score=0.379 total
time=
       3.6s
[CV 1/5; 36/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=2
[CV 1/5; 34/400] END bootstrap=False, max_depth=17, max_features=None,
min samples leaf=2, min samples split=2, n estimators=70;, score=0.414 total
       2.3s
time=
[CV 1/5; 36/400] END bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=2;, score=0.407 total
time= 0.0s
[CV 2/5; 36/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=2
[CV 3/5; 36/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=2
[CV 3/5; 34/400] END bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=70;, score=0.398 total
[CV 4/5; 36/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=2
```

```
[CV 2/5; 36/400] END bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=2;, score=0.379 total
time=
      0.0s
[CV 3/5; 36/400] END bootstrap=False, max_depth=5, max_features=None,
min samples leaf=3, min samples split=2, n estimators=2;, score=0.348 total
time=
      0.0s
[CV 1/5; 37/400] START bootstrap=True, max depth=9, max features=None,
min samples leaf=2, min samples split=4, n estimators=88
[CV 5/5; 36/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=2
[CV 4/5; 36/400] END bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=2;, score=0.381 total
time=
      0.0s
[CV 2/5; 37/400] START bootstrap=True, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=88
[CV 5/5; 36/400] END bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=2;, score=0.386 total
time= 0.0s
[CV 3/5; 37/400] START bootstrap=True, max_depth=9, max_features=None,
min samples leaf=2, min samples split=4, n estimators=88
[CV 4/5; 34/400] END bootstrap=False, max depth=17, max features=None,
min samples leaf=2, min samples split=2, n estimators=70;, score=0.396 total
time=
      2.3s
[CV 4/5; 37/400] START bootstrap=True, max_depth=9, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=88
[CV 5/5; 34/400] END bootstrap=False, max_depth=17, max_features=None,
min samples leaf=2, min samples split=2, n estimators=70;, score=0.413 total
time=
       2.3s
[CV 5/5; 37/400] START bootstrap=True, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=88
[CV 1/5; 35/400] END bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=42;, score=0.428 total
time=
      1.2s
[CV 1/5; 38/400] START bootstrap=False, max_depth=9, max_features=None,
min samples leaf=2, min samples split=6, n estimators=4
[CV 2/5; 35/400] END bootstrap=False, max depth=13, max features=None,
min samples leaf=2, min samples split=7, n estimators=42;, score=0.376 total
time=
      1.1s
[CV 2/5; 38/400] START bootstrap=False, max_depth=9, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=4
[CV 1/5; 38/400] END bootstrap=False, max_depth=9, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=4;, score=0.398 total
      0.1s
[CV 3/5; 38/400] START bootstrap=False, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=4
[CV 2/5; 38/400] END bootstrap=False, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=4;, score=0.377 total
time=
      0.1s
```

```
[CV 4/5; 38/400] START bootstrap=False, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=4
[CV 3/5; 35/400] END bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=42;, score=0.396 total
time= 1.1s
[CV 5/5; 38/400] START bootstrap=False, max depth=9, max features=None,
min samples leaf=2, min samples split=6, n estimators=4
[CV 3/5; 38/400] END bootstrap=False, max depth=9, max features=None,
min samples leaf=2, min samples split=6, n estimators=4;, score=0.351 total
time=
      0.1s
[CV 1/5; 39/400] START bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=30
[CV 4/5; 35/400] END bootstrap=False, max_depth=13, max_features=None,
min samples leaf=2, min samples split=7, n estimators=42;, score=0.380 total
[CV 2/5; 39/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=30
[CV 5/5; 38/400] END bootstrap=False, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=4;, score=0.379 total
time=
      0.1s
[CV 4/5; 38/400] END bootstrap=False, max depth=9, max features=None,
min samples leaf=2, min samples split=6, n estimators=4;, score=0.347 total
time= 0.1s
[CV 3/5; 39/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=30
[CV 4/5; 39/400] START bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=30
[CV 1/5; 37/400] END bootstrap=True, max_depth=9, max_features=None,
min samples leaf=2, min samples split=4, n estimators=88;, score=0.432 total
      1.1s[CV 5/5; 35/400] END bootstrap=False, max_depth=13,
max_features=None, min_samples_leaf=2, min_samples_split=7, n_estimators=42;,
score=0.391 total time=
                          1.2s
[CV 5/5; 39/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=30
[CV 1/5; 40/400] START bootstrap=False, max depth=8, max features=None,
min samples leaf=2, min samples split=3, n estimators=156
[CV 2/5; 37/400] END bootstrap=True, max_depth=9, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=88;, score=0.387 total
time=
      1.1s
[CV 2/5; 40/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=156
[CV 1/5; 39/400] END bootstrap=True, max depth=12, max features=sqrt,
min samples leaf=3, min samples split=9, n estimators=30;, score=0.420 total
time=
      0.1s
[CV 2/5; 39/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=30;, score=0.377 total
time=
       0.1s
```

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[CV 3/5; 40/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=156
[CV 4/5; 40/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=156
[CV 4/5; 39/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=30;, score=0.396 total
time= 0.2s
[CV 3/5; 39/400] END bootstrap=True, max depth=12, max features=sqrt,
min samples leaf=3, min samples split=9, n estimators=30;, score=0.421 total
time=
      0.2s
[CV 5/5; 40/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=156
[CV 3/5; 37/400] END bootstrap=True, max_depth=9, max_features=None,
min samples leaf=2, min samples split=4, n estimators=88;, score=0.398 total
[CV 1/5; 41/400] START bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=32
[CV 2/5; 41/400] START bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=32
[CV 5/5; 39/400] END bootstrap=True, max depth=12, max features=sqrt,
min samples leaf=3, min samples split=9, n estimators=30;, score=0.408 total
time= 0.2s
[CV 3/5; 41/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=32
[CV 4/5; 37/400] END bootstrap=True, max_depth=9, max_features=None,
min samples leaf=2, min samples split=4, n estimators=88;, score=0.398 total
time=
      1.1s
[CV 4/5; 41/400] START bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=32
[CV 5/5; 37/400] END bootstrap=True, max_depth=9, max_features=None,
min samples leaf=2, min samples split=4, n estimators=88;, score=0.413 total
time= 1.1s
[CV 5/5; 41/400] START bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=32
[CV 1/5; 41/400] END bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=32;, score=0.421 total
time= 1.0s
[CV 1/5; 42/400] START bootstrap=True, max depth=18, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=42
[CV 2/5; 41/400] END bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=32;, score=0.403 total
      1.0s
time=
[CV 2/5; 42/400] START bootstrap=True, max depth=18, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=42
[CV 3/5; 41/400] END bootstrap=False, max_depth=18, max_features=None,
min samples leaf=1, min samples split=8, n estimators=32;, score=0.385 total
time=
      1.1s
[CV 3/5; 42/400] START bootstrap=True, max depth=18, max features=None,
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min_samples_leaf=2, min_samples_split=9, n_estimators=42
[CV 4/5; 41/400] END bootstrap=False, max_depth=18, max_features=None,
min samples leaf=1, min samples split=8, n estimators=32;, score=0.387 total
time= 1.0s
[CV 4/5; 42/400] START bootstrap=True, max depth=18, max features=None,
min samples leaf=2, min samples split=9, n estimators=42
[CV 5/5; 41/400] END bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=32;, score=0.401 total
time=
      1.1s
[CV 5/5; 42/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=42
[CV 2/5; 42/400] END bootstrap=True, max depth=18, max features=None,
min samples leaf=2, min samples split=9, n estimators=42;, score=0.395 total
time=
       0.7s
[CV 1/5; 43/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=60
[CV 1/5; 42/400] END bootstrap=True, max_depth=18, max_features=None,
min samples leaf=2, min samples split=9, n estimators=42;, score=0.424 total
time=
      0.9s
[CV 2/5; 43/400] START bootstrap=False, max depth=8, max features=sqrt,
min samples leaf=1, min samples split=8, n estimators=60
[CV 3/5; 42/400] END bootstrap=True, max depth=18, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=42;, score=0.413 total
time=
      0.9s
[CV 3/5; 43/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=60
[CV 5/5; 42/400] END bootstrap=True, max depth=18, max features=None,
min samples leaf=2, min samples split=9, n estimators=42;, score=0.451 total
[CV 4/5; 43/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=60
[CV 4/5; 42/400] END bootstrap=True, max_depth=18, max_features=None,
min samples leaf=2, min samples split=9, n estimators=42;, score=0.394 total
time=
      0.9s
[CV 5/5; 43/400] START bootstrap=False, max depth=8, max features=sqrt,
min samples leaf=1, min samples split=8, n estimators=60
[CV 1/5; 43/400] END bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=60;, score=0.405 total
time= 0.5s
[CV 1/5; 44/400] START bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=48
[CV 2/5; 43/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=1, min samples split=8, n estimators=60;, score=0.396 total
time=
       0.5s
[CV 2/5; 44/400] START bootstrap=True, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=48
[CV 3/5; 43/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=1, min samples split=8, n estimators=60;, score=0.365 total
```

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[CV 3/5; 44/400] START bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=48
[CV 4/5; 43/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=1, min samples split=8, n estimators=60;, score=0.370 total
time=
       0.5s
[CV 4/5; 44/400] START bootstrap=True, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=48
[CV 5/5; 43/400] END bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=60;, score=0.372 total
time= 0.4s
[CV 5/5; 44/400] START bootstrap=True, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=48
[CV 4/5; 40/400] END bootstrap=False, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=156;, score=0.351 total
time=
      3.0s
[CV 1/5; 45/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=140
[CV 3/5; 40/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=2, min samples split=3, n estimators=156;, score=0.347 total
time= 3.1s
[CV 1/5; 44/400] END bootstrap=True, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=48;, score=0.454 total
time=
      0.8s
[CV 2/5; 45/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=140[CV 2/5; 40/400] END
bootstrap=False, max depth=8, max features=None, min samples leaf=2,
min_samples_split=3, n_estimators=156;, score=0.373 total time=
[CV 3/5; 45/400] START bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=140
[CV 4/5; 45/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=140
[CV 1/5; 40/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=2, min samples split=3, n estimators=156;, score=0.414 total
       3.2s
time=
[CV 5/5; 45/400] START bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=140
[CV 5/5; 40/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=156;, score=0.383 total
time=
      3.2s
[CV 1/5; 46/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148
[CV 2/5; 44/400] END bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=48;, score=0.390 total
[CV 2/5; 46/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148
```

time=

0.4s

```
[CV 3/5; 44/400] END bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=48;, score=0.383 total
time=
      0.9s
[CV 3/5; 46/400] START bootstrap=False, max_depth=8, max_features=None,
min samples leaf=3, min samples split=4, n estimators=148
[CV 5/5; 44/400] END bootstrap=True, max_depth=11, max_features=None,
min samples leaf=2, min samples split=5, n estimators=48;, score=0.420 total
time=
      0.8s
[CV 4/5; 46/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148
[CV 4/5; 44/400] END bootstrap=True, max depth=11, max features=None,
min samples leaf=2, min samples split=5, n estimators=48;, score=0.406 total
time=
      0.9s
[CV 5/5; 46/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148
[CV 2/5; 45/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=140;, score=0.402 total
time= 0.8s
[CV 1/5; 47/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=144
[CV 1/5; 45/400] END bootstrap=True, max depth=12, max features=sqrt,
min samples leaf=3, min samples split=9, n estimators=140;, score=0.421 total
time= 0.9s
[CV 2/5; 47/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=144
[CV 4/5; 45/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=140;, score=0.403 total
time=
      0.9s
[CV 3/5; 47/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=144
[CV 3/5; 45/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=140;, score=0.394 total
time=
      0.9s
[CV 5/5; 45/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=140;, score=0.412 total
time= 0.9s
[CV 4/5; 47/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=144
[CV 5/5; 47/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=144
[CV 1/5; 47/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=144;, score=0.409 total
      1.0s
[CV 1/5; 48/400] START bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=84
[CV 3/5; 47/400] END bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=144;, score=0.373 total
time=
       0.9s
```

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[CV 2/5; 48/400] START bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=84
[CV 5/5; 47/400] END bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=144;, score=0.389 total
time= 0.9s
[CV 3/5; 48/400] START bootstrap=True, max depth=6, max features=sqrt,
min samples leaf=3, min samples split=8, n estimators=84
[CV 2/5; 47/400] END bootstrap=False, max depth=8, max features=sqrt,
min samples leaf=3, min samples split=6, n estimators=144;, score=0.392 total
time=
      1.0s
[CV 4/5; 48/400] START bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=84
[CV 4/5; 47/400] END bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=144;, score=0.381 total
[CV 5/5; 48/400] START bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=84
[CV 1/5; 48/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=84;, score=0.402 total
time=
      0.4s
[CV 1/5; 49/400] START bootstrap=False, max depth=16, max features=None,
min samples leaf=2, min samples split=9, n estimators=60
[CV 2/5; 48/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min samples leaf=3, min samples split=8, n estimators=84;, score=0.410 total
time= 0.4s
[CV 3/5; 48/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min samples leaf=3, min samples split=8, n estimators=84;, score=0.369 total
time=
      0.4s
[CV 2/5; 49/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=60
[CV 3/5; 49/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=60
[CV 4/5; 48/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=84;, score=0.384 total
time= 0.4s
[CV 4/5; 49/400] START bootstrap=False, max depth=16, max features=None,
min samples leaf=2, min samples split=9, n estimators=60
[CV 5/5; 48/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=84;, score=0.382 total
      0.4s
time=
[CV 5/5; 49/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=60
[CV 1/5; 46/400] END bootstrap=False, max depth=8, max features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148;, score=0.413 total
time=
        3.1s
[CV 1/5; 50/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=130
[CV 4/5; 46/400] END bootstrap=False, max_depth=8, max_features=None,
```

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min_samples_leaf=3, min_samples_split=4, n_estimators=148;, score=0.350 total
time=
      3.0s
[CV 2/5; 50/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=130
[CV 2/5; 46/400] END bootstrap=False, max depth=8, max features=None,
min samples leaf=3, min samples split=4, n estimators=148;, score=0.380 total
time= 3.2s
[CV 3/5; 46/400] END bootstrap=False, max depth=8, max features=None,
min samples leaf=3, min samples split=4, n estimators=148;, score=0.347 total
time=
      3.2s
[CV 3/5; 50/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=130
[CV 4/5; 50/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=130
[CV 5/5; 46/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148;, score=0.386 total
time=
       3.1s
[CV 5/5; 50/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=130
[CV 1/5; 49/400] END bootstrap=False, max depth=16, max features=None,
min samples leaf=2, min samples split=9, n estimators=60;, score=0.412 total
time=
       2.0s
[CV 1/5; 51/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min samples leaf=2, min samples split=5, n estimators=68
[CV 2/5; 49/400] END bootstrap=False, max_depth=16, max_features=None,
min samples leaf=2, min samples split=9, n estimators=60;, score=0.398 total
time=
      2.0s
[CV 2/5; 51/400] START bootstrap=True, max depth=14, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=68
[CV 4/5; 49/400] END bootstrap=False, max_depth=16, max_features=None,
min samples leaf=2, min samples split=9, n estimators=60;, score=0.398 total
[CV 3/5; 51/400] START bootstrap=True, max depth=14, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=68
[CV 5/5; 49/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=60;, score=0.386 total
time= 2.0s
[CV 4/5; 51/400] START bootstrap=True, max depth=14, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=68
[CV 3/5; 49/400] END bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=60;, score=0.394 total
       2.1s
time=
[CV 5/5; 51/400] START bootstrap=True, max depth=14, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=68
[CV 1/5; 50/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=130;, score=0.431 total
time=
      1.2s
[CV 1/5; 52/400] START bootstrap=False, max depth=5, max features=None,
```

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min_samples_leaf=3, min_samples_split=3, n_estimators=140
[CV 1/5; 51/400] END bootstrap=True, max depth=14, max features=sqrt,
min samples leaf=2, min samples split=5, n estimators=68;, score=0.432 total
time= 0.4s
[CV 3/5; 50/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=130;, score=0.359 total
[CV 2/5; 52/400] START bootstrap=False, max_depth=5, max_features=None,
min samples leaf=3, min samples split=3, n estimators=140
[CV 3/5; 52/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=140
[CV 2/5; 51/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min samples leaf=2, min samples split=5, n estimators=68;, score=0.402 total
time=
      0.4s
[CV 4/5; 52/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=140
[CV 3/5; 51/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min samples leaf=2, min samples split=5, n estimators=68;, score=0.377 total
time=
      0.4s
[CV 5/5; 51/400] END bootstrap=True, max depth=14, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=68;, score=0.426 total
time= 0.3s
[CV 5/5; 52/400] START bootstrap=False, max_depth=5, max_features=None,
min samples leaf=3, min samples split=3, n estimators=140
[CV 4/5; 51/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min samples leaf=2, min samples split=5, n estimators=68;, score=0.399 total
time=
      0.4s
[CV 2/5; 50/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=130;, score=0.409 total
time=
      1.3s
[CV 1/5; 53/400] START bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=190
[CV 2/5; 53/400] START bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=190
[CV 4/5; 50/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=130;, score=0.364 total
time= 1.2s
[CV 3/5; 53/400] START bootstrap=False, max depth=20, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=190
[CV 4/5; 53/400] START bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=190
[CV 5/5; 50/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=130;, score=0.412 total
time=
       1.2s
[CV 5/5; 53/400] START bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=190
[CV 1/5; 52/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=140;, score=0.407 total
```

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time=
        1.7s
[CV 1/5; 54/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=84
[CV 2/5; 52/400] END bootstrap=False, max_depth=5, max_features=None,
min samples leaf=3, min samples split=3, n estimators=140;, score=0.379 total
time=
        1.7s
[CV 2/5; 54/400] START bootstrap=True, max depth=19, max features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=84
[CV 5/5; 52/400] END bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=140;, score=0.386 total
time=
      1.7s
[CV 3/5; 54/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=84
[CV 3/5; 52/400] END bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=140;, score=0.348 total
time=
      1.7s
[CV 4/5; 54/400] START bootstrap=True, max depth=19, max features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=84
[CV 4/5; 52/400] END bootstrap=False, max_depth=5, max_features=None,
min samples leaf=3, min samples split=3, n estimators=140;, score=0.381 total
time=
      1.7s
[CV 5/5; 54/400] START bootstrap=True, max depth=19, max features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=84
[CV 3/5; 53/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=190;, score=0.380 total
time=
       2.0s
[CV 1/5; 55/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160
[CV 2/5; 53/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=190;, score=0.388 total
time=
       2.1s
[CV 4/5; 53/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=190;, score=0.369 total
time=
       2.2s
[CV 2/5; 55/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160
[CV 1/5; 53/400] END bootstrap=False, max depth=20, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=190;, score=0.416 total
time=
       2.2s
[CV 3/5; 55/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160
[CV 5/5; 53/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=190;, score=0.413 total
       2.1s
time=
[CV 4/5; 55/400] START bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160
[CV 5/5; 55/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160
```

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[CV 1/5; 55/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160;, score=0.435 total
time=
      1.0s
[CV 1/5; 56/400] START bootstrap=False, max_depth=12, max_features=None,
min samples leaf=2, min samples split=8, n estimators=10
[CV 2/5; 55/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min samples leaf=1, min samples split=4, n estimators=160;, score=0.401 total
time=
      1.0s
[CV 2/5; 56/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=10
[CV 3/5; 55/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160;, score=0.395 total
time=
      1.0s
[CV 3/5; 56/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=10
[CV 1/5; 54/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=84;, score=0.416 total
time= 1.8s
[CV 4/5; 56/400] START bootstrap=False, max_depth=12, max_features=None,
min samples leaf=2, min samples split=8, n estimators=10
[CV 4/5; 55/400] END bootstrap=True, max depth=16, max features=sqrt,
min samples leaf=1, min samples split=4, n estimators=160;, score=0.403 total
time= 1.0s
[CV 5/5; 56/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=10
[CV 2/5; 54/400] END bootstrap=True, max depth=19, max features=None,
min samples leaf=2, min samples split=6, n estimators=84;, score=0.392 total
time=
      1.6s
[CV 1/5; 57/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=184
[CV 5/5; 55/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160;, score=0.427 total
time= 1.0s
[CV 2/5; 57/400] START bootstrap=False, max depth=10, max features=sqrt,
min samples leaf=2, min samples split=9, n estimators=184
[CV 1/5; 56/400] END bootstrap=False, max depth=12, max features=None,
min samples leaf=2, min samples split=8, n estimators=10;, score=0.421 total
time=
      0.2s
[CV 3/5; 57/400] START bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=184
[CV 5/5; 54/400] END bootstrap=True, max_depth=19, max_features=None,
min samples leaf=2, min samples split=6, n estimators=84;, score=0.444 total
[CV 4/5; 57/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=184
[CV 2/5; 56/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=10;, score=0.373 total
time=
       0.2s
```

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[CV 5/5; 57/400] START bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=184
[CV 4/5; 54/400] END bootstrap=True, max depth=19, max features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=84;, score=0.391 total
time= 1.7s
[CV 1/5; 58/400] START bootstrap=True, max depth=14, max features=None,
min samples leaf=3, min samples split=9, n estimators=74
[CV 3/5; 54/400] END bootstrap=True, max_depth=19, max_features=None,
min samples leaf=2, min samples split=6, n estimators=84;, score=0.406 total
time=
      1.8s
[CV 2/5; 58/400] START bootstrap=True, max depth=14, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=74
[CV 3/5; 56/400] END bootstrap=False, max_depth=12, max_features=None,
min samples leaf=2, min samples split=8, n estimators=10;, score=0.335 total
[CV 4/5; 56/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=10;, score=0.372 total
time= 0.3s
[CV 3/5; 58/400] START bootstrap=True, max_depth=14, max_features=None,
min samples leaf=3, min samples split=9, n estimators=74
[CV 4/5; 58/400] START bootstrap=True, max depth=14, max features=None,
min samples leaf=3, min samples split=9, n estimators=74
[CV 5/5; 56/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=10;, score=0.380 total
time= 0.3s
[CV 5/5; 58/400] START bootstrap=True, max depth=14, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=74
[CV 1/5; 57/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=184;, score=0.421 total
time=
      1.2s
[CV 1/5; 59/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=134
[CV 2/5; 57/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=184;, score=0.402 total
time=
      1.2s
[CV 2/5; 59/400] START bootstrap=True, max depth=None, max features=sqrt,
min samples leaf=2, min samples split=9, n estimators=134
[CV 3/5; 57/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=184;, score=0.372 total
      1.3s
time=
[CV 3/5; 59/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=134
[CV 1/5; 58/400] END bootstrap=True, max depth=14, max features=None,
min samples leaf=3, min samples split=9, n estimators=74;, score=0.433 total
time=
       1.2s
[CV 4/5; 59/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=134
[CV 4/5; 57/400] END bootstrap=False, max_depth=10, max_features=sqrt,
```

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min_samples_leaf=2, min_samples_split=9, n_estimators=184;, score=0.372 total
time=
      1.3s
[CV 5/5; 59/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=134
[CV 2/5; 58/400] END bootstrap=True, max depth=14, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=74;, score=0.402 total
time= 1.2s
[CV 1/5; 60/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=8
[CV 5/5; 57/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=184;, score=0.386 total
       1.3s
[CV 5/5; 58/400] END bootstrap=True, max depth=14, max features=None,
min samples leaf=3, min samples split=9, n estimators=74;, score=0.416 total
[CV 2/5; 60/400] START bootstrap=True, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=8
[CV 3/5; 60/400] START bootstrap=True, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=8
[CV 4/5; 58/400] END bootstrap=True, max depth=14, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=74;, score=0.414 total
time= 1.3s
[CV 3/5; 58/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=74;, score=0.431 total
time= 1.3s
[CV 1/5; 60/400] END bootstrap=True, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=8;, score=0.409 total
time=
      0.1s
[CV 4/5; 60/400] START bootstrap=True, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=8
[CV 5/5; 60/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=8
[CV 1/5; 61/400] START bootstrap=True, max depth=12, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=184
[CV 3/5; 60/400] END bootstrap=True, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=8;, score=0.368 total
time= 0.1s
[CV 2/5; 61/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=184[CV 2/5; 60/400] END
bootstrap=True, max_depth=12, max_features=None, min_samples_leaf=1,
min_samples_split=5, n_estimators=8;, score=0.403 total time=
[CV 3/5; 61/400] START bootstrap=True, max depth=12, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=184
[CV 4/5; 60/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=8;, score=0.396 total
time=
       0.1s
```

[CV 4/5; 61/400] START bootstrap=True, max depth=12, max features=None,

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min_samples_leaf=2, min_samples_split=7, n_estimators=184
[CV 5/5; 60/400] END bootstrap=True, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=8;, score=0.422 total
time= 0.1s
[CV 5/5; 61/400] START bootstrap=True, max depth=12, max features=None,
min samples leaf=2, min samples split=7, n estimators=184
[CV 2/5; 59/400] END bootstrap=True, max depth=None, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=134;, score=0.398 total
time=
      0.9s
[CV 1/5; 62/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=54
[CV 1/5; 59/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=134;, score=0.424 total
time=
      1.0s
[CV 2/5; 62/400] START bootstrap=False, max depth=6, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=54
[CV 4/5; 59/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=134;, score=0.383 total
time=
      0.9s
[CV 3/5; 62/400] START bootstrap=False, max depth=6, max features=None,
min samples leaf=2, min samples split=9, n estimators=54[CV 3/5; 59/400] END
bootstrap=True, max depth=None, max features=sqrt, min samples leaf=2,
min_samples_split=9, n_estimators=134;, score=0.407 total time=
[CV 4/5; 62/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=54
[CV 5/5; 59/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=134;, score=0.434 total
[CV 5/5; 62/400] START bootstrap=False, max depth=6, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=54
[CV 2/5; 62/400] END bootstrap=False, max_depth=6, max_features=None,
min samples leaf=2, min samples split=9, n estimators=54;, score=0.391 total
time=
      0.7s
[CV 1/5; 63/400] START bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=164
[CV 1/5; 62/400] END bootstrap=False, max depth=6, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=54;, score=0.406 total
time= 0.8s
[CV 2/5; 63/400] START bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=164
[CV 4/5; 62/400] END bootstrap=False, max depth=6, max features=None,
min samples leaf=2, min samples split=9, n estimators=54;, score=0.374 total
time=
      0.8s
[CV 3/5; 62/400] END bootstrap=False, max depth=6, max features=None,
min samples leaf=2, min samples split=9, n estimators=54;, score=0.357 total
time=
       0.8s
[CV 3/5; 63/400] START bootstrap=True, max depth=19, max features=sqrt,
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min_samples_leaf=2, min_samples_split=7, n_estimators=164
[CV 4/5; 63/400] START bootstrap=True, max depth=19, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=164
[CV 5/5; 62/400] END bootstrap=False, max_depth=6, max_features=None,
min samples leaf=2, min samples split=9, n estimators=54;, score=0.394 total
time=
       0.8s
[CV 5/5; 63/400] START bootstrap=True, max depth=19, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=164
[CV 1/5; 63/400] END bootstrap=True, max depth=19, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=164;, score=0.424 total
time=
      1.2s
[CV 1/5; 64/400] START bootstrap=True, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=94
[CV 2/5; 63/400] END bootstrap=True, max depth=19, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=164;, score=0.391 total
time=
      1.2s
[CV 2/5; 64/400] START bootstrap=True, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=94
[CV 3/5; 63/400] END bootstrap=True, max_depth=19, max_features=sqrt,
min samples leaf=2, min samples split=7, n estimators=164;, score=0.403 total
time= 1.2s
[CV 3/5; 64/400] START bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=94
[CV 4/5; 63/400] END bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=164;, score=0.420 total
time=
       1.2s
[CV 4/5; 64/400] START bootstrap=True, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=94
[CV 5/5; 63/400] END bootstrap=True, max depth=19, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=164;, score=0.404 total
time=
      1.2s
[CV 5/5; 64/400] START bootstrap=True, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=94
[CV 3/5; 61/400] END bootstrap=True, max_depth=12, max_features=None,
min samples leaf=2, min samples split=7, n estimators=184;, score=0.394 total
       2.9s
time=
[CV 1/5; 65/400] START bootstrap=False, max depth=14, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=66
[CV 1/5; 61/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=184;, score=0.428 total
time=
      3.0s
[CV 2/5; 65/400] START bootstrap=False, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=66
[CV 4/5; 61/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=184;, score=0.410 total
[CV 3/5; 65/400] START bootstrap=False, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=66
```

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[CV 5/5; 61/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=184;, score=0.426 total
time=
       3.0s
[CV 4/5; 65/400] START bootstrap=False, max_depth=14, max_features=None,
min samples leaf=1, min samples split=7, n estimators=66
[CV 1/5; 64/400] END bootstrap=True, max_depth=8, max_features=sqrt,
min samples leaf=3, min samples split=3, n estimators=94;, score=0.444 total
time= 0.5s
[CV 5/5; 65/400] START bootstrap=False, max depth=14, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=66
[CV 2/5; 64/400] END bootstrap=True, max_depth=8, max_features=sqrt,
min samples leaf=3, min samples split=3, n estimators=94;, score=0.396 total
time=
      0.5s
[CV 1/5; 66/400] START bootstrap=False, max depth=20, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=138
[CV 2/5; 61/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=184;, score=0.396 total
[CV 3/5; 64/400] END bootstrap=True, max depth=8, max features=sqrt,
min samples leaf=3, min samples split=3, n estimators=94;, score=0.374 total
[CV 4/5; 64/400] END bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=94;, score=0.384 total
time=
      0.4s
[CV 2/5; 66/400] START bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=138
[CV 3/5; 66/400] START bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=138
[CV 4/5; 66/400] START bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=138
[CV 5/5; 64/400] END bootstrap=True, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=94;, score=0.420 total
time=
      0.4s
[CV 5/5; 66/400] START bootstrap=False, max_depth=20, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=138
[CV 1/5; 66/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=138;, score=0.421 total
time=
      1.5s
[CV 1/5; 67/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=98
[CV 2/5; 66/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=138;, score=0.396 total
[CV 2/5; 67/400] START bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=98
[CV 1/5; 65/400] END bootstrap=False, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=66;, score=0.427 total
time=
      1.9s
```

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[CV 3/5; 67/400] START bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=98
[CV 4/5; 66/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=138;, score=0.379 total
time= 1.6s
[CV 4/5; 67/400] START bootstrap=True, max depth=20, max features=sqrt,
min samples leaf=3, min samples split=5, n estimators=98
[CV 4/5; 65/400] END bootstrap=False, max depth=14, max features=None,
min samples leaf=1, min samples split=7, n estimators=66;, score=0.379 total
time=
      1.8s
[CV 5/5; 66/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=138;, score=0.413 total
time=
      1.6s
[CV 5/5; 67/400] START bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=98
[CV 1/5; 68/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=146
[CV 2/5; 65/400] END bootstrap=False, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=66;, score=0.398 total
time=
       2.0s
[CV 2/5; 68/400] START bootstrap=True, max depth=17, max features=None,
min samples leaf=3, min samples split=3, n estimators=146
[CV 3/5; 66/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=138;, score=0.377 total
time= 1.7s
[CV 3/5; 68/400] START bootstrap=True, max depth=17, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=146
[CV 5/5; 65/400] END bootstrap=False, max_depth=14, max_features=None,
min samples leaf=1, min samples split=7, n estimators=66;, score=0.352 total
time=
       2.0s
[CV 4/5; 68/400] START bootstrap=True, max depth=17, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=146
[CV 3/5; 65/400] END bootstrap=False, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=66;, score=0.394 total
time=
      2.1s
[CV 5/5; 68/400] START bootstrap=True, max depth=17, max features=None,
min samples leaf=3, min samples split=3, n estimators=146
[CV 1/5; 67/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=98;, score=0.412 total
time=
      0.7s
[CV 1/5; 69/400] START bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=114
[CV 3/5; 67/400] END bootstrap=True, max depth=20, max features=sqrt,
min samples leaf=3, min samples split=5, n estimators=98;, score=0.412 total
time=
      0.7s
[CV 2/5; 67/400] END bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=98;, score=0.384 total
time=
      0.7s
```

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[CV 2/5; 69/400] START bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=114
[CV 3/5; 69/400] START bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=114
[CV 5/5; 67/400] END bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=98;, score=0.423 total
time= 0.6s
[CV 4/5; 69/400] START bootstrap=True, max depth=6, max features=None,
min samples leaf=1, min samples split=4, n estimators=114
[CV 4/5; 67/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min samples leaf=3, min samples split=5, n estimators=98;, score=0.396 total
       0.7s
time=
[CV 5/5; 69/400] START bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=114
[CV 1/5; 69/400] END bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=114;, score=0.409 total
time=
      1.0s
[CV 1/5; 70/400] START bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=86
[CV 3/5; 69/400] END bootstrap=True, max depth=6, max features=None,
min samples leaf=1, min samples split=4, n estimators=114;, score=0.364 total
time= 1.0s
[CV 2/5; 70/400] START bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=86
[CV 2/5; 69/400] END bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=114;, score=0.402 total
time=
      1.0s
[CV 3/5; 70/400] START bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=86
[CV 4/5; 69/400] END bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=114;, score=0.364 total
      1.0s
[CV 4/5; 70/400] START bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=86
[CV 5/5; 69/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=114;, score=0.397 total
time= 1.0s
[CV 5/5; 70/400] START bootstrap=False, max depth=20, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=86
[CV 1/5; 70/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=86;, score=0.432 total
      1.0s
time=
[CV 1/5; 71/400] START bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=134
[CV 4/5; 70/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min samples leaf=2, min samples split=9, n estimators=86;, score=0.377 total
time=
      0.9s
[CV 2/5; 70/400] END bootstrap=False, max_depth=20, max_features=sqrt,
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min samples leaf=2, min samples split=9, n estimators=86;, score=0.406 total
time=
      1.0s
[CV 2/5; 71/400] START bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=134
[CV 3/5; 71/400] START bootstrap=True, max depth=12, max features=sqrt,
min samples leaf=1, min samples split=5, n estimators=134
[CV 3/5; 70/400] END bootstrap=False, max depth=20, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=86;, score=0.390 total
time=
      1.0s
[CV 4/5; 71/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=134
[CV 5/5; 70/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min samples leaf=2, min samples split=9, n estimators=86;, score=0.396 total
time=
      1.0s
[CV 5/5; 71/400] START bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=134
[CV 2/5; 68/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=146;, score=0.396 total
time=
      2.7s
[CV 1/5; 72/400] START bootstrap=True, max depth=19, max features=sqrt,
min samples leaf=1, min samples split=7, n estimators=154
[CV 1/5; 68/400] END bootstrap=True, max depth=17, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=146;, score=0.428 total
time=
       2.8s
[CV 2/5; 72/400] START bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=154
[CV 3/5; 68/400] END bootstrap=True, max depth=17, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=146;, score=0.420 total
time=
[CV 3/5; 72/400] START bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=154
[CV 5/5; 68/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=146;, score=0.423 total
time=
       2.7s
[CV 4/5; 72/400] START bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=154
[CV 4/5; 68/400] END bootstrap=True, max depth=17, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=146;, score=0.392 total
time=
       2.8s
[CV 5/5; 72/400] START bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=154
[CV 4/5; 71/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=134;, score=0.396 total
time=
      0.6s
[CV 1/5; 71/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=134;, score=0.432 total
time=
      0.7s
```

[CV 3/5; 71/400] END bootstrap=True, max\_depth=12, max\_features=sqrt,

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min_samples_leaf=1, min_samples_split=5, n_estimators=134;, score=0.406 total
time=
      0.7s
[CV 1/5; 73/400] START bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=2
[CV 2/5; 73/400] START bootstrap=True, max depth=15, max features=sqrt,
min samples leaf=3, min samples split=2, n estimators=2
[CV 1/5; 73/400] END bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=2;, score=0.403 total
time=
      0.0s
[CV 3/5; 73/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=2
[CV 4/5; 73/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=2
[CV 2/5; 73/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=2;, score=0.384 total
time=
      0.0s
[CV 5/5; 73/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=2
[CV 3/5; 73/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min samples leaf=3, min samples split=2, n estimators=2;, score=0.372 total
time= 0.0s
[CV 1/5; 74/400] START bootstrap=False, max depth=18, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=62
[CV 4/5; 73/400] END bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=2;, score=0.387 total
time=
      0.0s
[CV 2/5; 74/400] START bootstrap=False, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=62
[CV 5/5; 73/400] END bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=2;, score=0.408 total
time=
      0.0s
[CV 3/5; 74/400] START bootstrap=False, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=62
[CV 2/5; 71/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=1, min samples split=5, n estimators=134;, score=0.406 total
time= 0.8s
[CV 4/5; 74/400] START bootstrap=False, max depth=18, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=62
[CV 5/5; 71/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=134;, score=0.434 total
time=
      0.7s
[CV 5/5; 74/400] START bootstrap=False, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=62
[CV 1/5; 72/400] END bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=154;, score=0.431 total
[CV 1/5; 75/400] START bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160
```

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[CV 2/5; 72/400] END bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=154;, score=0.403 total
time=
      1.0s
[CV 3/5; 72/400] END bootstrap=True, max_depth=19, max_features=sqrt,
min samples leaf=1, min samples split=7, n estimators=154;, score=0.407 total
time=
       1.0s
[CV 2/5; 75/400] START bootstrap=True, max depth=6, max features=sqrt,
min samples leaf=1, min samples split=4, n estimators=160
[CV 3/5; 75/400] START bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160
[CV 2/5; 74/400] END bootstrap=False, max_depth=18, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=62;, score=0.409 total
time=
      0.6s
[CV 4/5; 75/400] START bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160
[CV 1/5; 74/400] END bootstrap=False, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=62;, score=0.427 total
time= 0.6s
[CV 5/5; 75/400] START bootstrap=True, max_depth=6, max_features=sqrt,
min samples leaf=1, min samples split=4, n estimators=160
[CV 3/5; 74/400] END bootstrap=False, max depth=18, max features=sqrt,
min samples leaf=3, min samples split=9, n estimators=62;, score=0.388 total
time= 0.6s
[CV 1/5; 76/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=64
[CV 5/5; 74/400] END bootstrap=False, max_depth=18, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=62;, score=0.382 total
time=
       0.6s
[CV 2/5; 76/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=64
[CV 4/5; 74/400] END bootstrap=False, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=62;, score=0.394 total
time=
      0.7s
[CV 3/5; 76/400] START bootstrap=False, max_depth=12, max_features=None,
min samples leaf=1, min samples split=9, n estimators=64
[CV 4/5; 72/400] END bootstrap=True, max depth=19, max features=sqrt,
min samples leaf=1, min samples split=7, n estimators=154;, score=0.402 total
time=
      1.1s
[CV 4/5; 76/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=64
[CV 5/5; 72/400] END bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=154;, score=0.420 total
[CV 5/5; 76/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=64
[CV 1/5; 75/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160;, score=0.416 total
time=
       0.5s
```

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[CV 1/5; 77/400] START bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=66
[CV 3/5; 75/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160;, score=0.374 total
time= 0.5s
[CV 2/5; 77/400] START bootstrap=True, max depth=8, max features=None,
min samples leaf=2, min samples split=5, n estimators=66
[CV 2/5; 75/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min samples leaf=1, min samples split=4, n estimators=160;, score=0.390 total
time=
      0.5s
[CV 3/5; 77/400] START bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=66
[CV 5/5; 75/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160;, score=0.387 total
[CV 4/5; 77/400] START bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=66
[CV 4/5; 75/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160;, score=0.385 total
time=
      0.5s
[CV 5/5; 77/400] START bootstrap=True, max depth=8, max features=None,
min samples leaf=2, min samples split=5, n estimators=66
[CV 1/5; 77/400] END bootstrap=True, max_depth=8, max_features=None,
min samples leaf=2, min samples split=5, n estimators=66;, score=0.417 total
time= 0.8s
[CV 1/5; 78/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=2, n_estimators=118
[CV 2/5; 77/400] END bootstrap=True, max_depth=8, max_features=None,
min samples leaf=2, min samples split=5, n estimators=66;, score=0.398 total
time=
      0.8s
[CV 2/5; 78/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=2, n_estimators=118[CV 3/5; 77/400] END
bootstrap=True, max_depth=8, max_features=None, min_samples_leaf=2,
min_samples_split=5, n_estimators=66;, score=0.370 total time=
[CV 3/5; 78/400] START bootstrap=False, max depth=12, max features=sqrt,
min samples leaf=1, min samples split=2, n estimators=118
[CV 4/5; 77/400] END bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=66;, score=0.385 total
time=
      0.7s
[CV 4/5; 78/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=2, n_estimators=118
[CV 5/5; 77/400] END bootstrap=True, max_depth=8, max_features=None,
min samples leaf=2, min samples split=5, n estimators=66;, score=0.412 total
time=
       0.8s
[CV 5/5; 78/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=2, n_estimators=118
[CV 2/5; 76/400] END bootstrap=False, max_depth=12, max_features=None,
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min samples leaf=1, min samples split=9, n estimators=64;, score=0.374 total
time=
      1.6s
[CV 1/5; 79/400] START bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=194
[CV 1/5; 76/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=64;, score=0.421 total
time= 1.6s
[CV 2/5; 79/400] START bootstrap=True, max depth=6, max features=None,
min samples leaf=1, min samples split=6, n estimators=194
[CV 5/5; 76/400] END bootstrap=False, max_depth=12, max_features=None,
min samples leaf=1, min samples split=9, n estimators=64;, score=0.368 total
       1.5s
[CV 4/5; 76/400] END bootstrap=False, max_depth=12, max_features=None,
min samples leaf=1, min samples split=9, n estimators=64;, score=0.369 total
[CV 3/5; 79/400] START bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=194
[CV 3/5; 76/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=64;, score=0.332 total
time=
      1.6s
[CV 4/5; 79/400] START bootstrap=True, max depth=6, max features=None,
min samples leaf=1, min samples split=6, n estimators=194
[CV 5/5; 79/400] START bootstrap=True, max_depth=6, max_features=None,
min samples leaf=1, min samples split=6, n estimators=194
[CV 2/5; 78/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=2, n_estimators=118;, score=0.390 total
time=
      0.9s
[CV 1/5; 80/400] START bootstrap=False, max_depth=10, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=122
[CV 4/5; 78/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=2, n_estimators=118;, score=0.383 total
time= 0.9s
[CV 2/5; 80/400] START bootstrap=False, max_depth=10, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=122
[CV 3/5; 78/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=2, n_estimators=118;, score=0.354 total
time= 1.0s
[CV 3/5; 80/400] START bootstrap=False, max depth=10, max features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=122
[CV 1/5; 78/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=2, n_estimators=118;, score=0.406 total
time=
      1.1s
[CV 4/5; 80/400] START bootstrap=False, max_depth=10, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=122
[CV 5/5; 78/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=2, n_estimators=118;, score=0.401 total
time=
       0.9s
[CV 5/5; 80/400] START bootstrap=False, max_depth=10, max_features=None,
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min_samples_leaf=1, min_samples_split=2, n_estimators=122
[CV 1/5; 79/400] END bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=194;, score=0.409 total
      1.7s
[CV 1/5; 81/400] START bootstrap=False, max depth=6, max features=sqrt,
min samples leaf=3, min samples split=6, n estimators=182
[CV 2/5; 79/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=194;, score=0.394 total
time=
      1.8s
[CV 4/5; 79/400] END bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=194;, score=0.384 total
[CV 3/5; 79/400] END bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=194;, score=0.372 total
[CV 2/5; 81/400] START bootstrap=False, max depth=6, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=182
[CV 5/5; 79/400] END bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=194;, score=0.393 total
time=
      1.7s
[CV 3/5; 81/400] START bootstrap=False, max depth=6, max features=sqrt,
min samples leaf=3, min samples split=6, n estimators=182
[CV 4/5; 81/400] START bootstrap=False, max depth=6, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=182
[CV 5/5; 81/400] START bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=182
[CV 1/5; 81/400] END bootstrap=False, max depth=6, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=182;, score=0.420 total
[CV 2/5; 81/400] END bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=182;, score=0.391 total
time= 0.8s
[CV 1/5; 82/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=60
[CV 2/5; 82/400] START bootstrap=True, max depth=18, max features=sqrt,
min samples leaf=3, min samples split=8, n estimators=60
[CV 5/5; 81/400] END bootstrap=False, max depth=6, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=182;, score=0.387 total
time= 0.8s
[CV 3/5; 82/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=60
[CV 3/5; 81/400] END bootstrap=False, max depth=6, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=182;, score=0.383 total
time=
      0.8s
[CV 4/5; 81/400] END bootstrap=False, max depth=6, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=182;, score=0.383 total
time=
      0.8s
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[CV 4/5; 82/400] START bootstrap=True, max depth=18, max features=sqrt,

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min_samples_leaf=3, min_samples_split=8, n_estimators=60
[CV 5/5; 82/400] START bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=60
[CV 1/5; 82/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min samples leaf=3, min samples split=8, n estimators=60;, score=0.439 total
time=
       0.3s
[CV 1/5; 83/400] START bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=14
[CV 2/5; 82/400] END bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=60;, score=0.428 total
time= 0.4s
[CV 2/5; 83/400] START bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=14
[CV 5/5; 82/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=60;, score=0.444 total
time=
      0.4s
[CV 3/5; 83/400] START bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=14
[CV 1/5; 83/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min samples leaf=1, min samples split=5, n estimators=14;, score=0.451 total
time= 0.1s
[CV 3/5; 82/400] END bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=60;, score=0.396 total
time=
      0.4s
[CV 4/5; 83/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=14
[CV 5/5; 83/400] START bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=14
[CV 4/5; 82/400] END bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=60;, score=0.381 total
time=
      0.4s
[CV 1/5; 84/400] START bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158
[CV 2/5; 83/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min samples leaf=1, min samples split=5, n estimators=14;, score=0.383 total
time= 0.1s
[CV 2/5; 84/400] START bootstrap=False, max depth=11, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158
[CV 3/5; 83/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=14;, score=0.380 total
time=
      0.1s
[CV 3/5; 84/400] START bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158
[CV 4/5; 83/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=14;, score=0.384 total
[CV 4/5; 84/400] START bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158
```

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[CV 5/5; 83/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=14;, score=0.411 total
time=
      0.1s
[CV 1/5; 80/400] END bootstrap=False, max_depth=10, max_features=None,
min samples leaf=1, min samples split=2, n estimators=122;, score=0.384 total
time=
[CV 5/5; 84/400] START bootstrap=False, max depth=11, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158
[CV 1/5; 85/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=182
[CV 3/5; 80/400] END bootstrap=False, max_depth=10, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=122;, score=0.346 total
time=
       2.7s
[CV 4/5; 80/400] END bootstrap=False, max depth=10, max features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=122;, score=0.355 total
time=
      2.7s
[CV 2/5; 85/400] START bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=182
[CV 5/5; 80/400] END bootstrap=False, max_depth=10, max_features=None,
min samples leaf=1, min samples split=2, n estimators=122;, score=0.359 total
time=
      2.7s
[CV 3/5; 85/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=182
[CV 4/5; 85/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=182
[CV 2/5; 80/400] END bootstrap=False, max_depth=10, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=122;, score=0.381 total
time=
       2.8s
[CV 5/5; 85/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=182
[CV 2/5; 84/400] END bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158;, score=0.391 total
time=
      1.2s
[CV 1/5; 86/400] START bootstrap=True, max_depth=5, max_features=None,
min samples leaf=2, min samples split=9, n estimators=116
[CV 1/5; 84/400] END bootstrap=False, max_depth=11, max_features=sqrt,
min samples leaf=1, min samples split=4, n estimators=158;, score=0.421 total
time=
      1.2s
[CV 2/5; 86/400] START bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=116
[CV 3/5; 84/400] END bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158;, score=0.361 total
[CV 3/5; 86/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=116
[CV 4/5; 84/400] END bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158;, score=0.372 total
time=
      1.2s
```

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[CV 4/5; 86/400] START bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=116
[CV 5/5; 84/400] END bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158;, score=0.412 total
time= 1.2s
[CV 5/5; 86/400] START bootstrap=True, max depth=5, max features=None,
min samples leaf=2, min samples split=9, n estimators=116
[CV 4/5; 85/400] END bootstrap=True, max_depth=5, max_features=None,
min samples leaf=3, min samples split=8, n estimators=182;, score=0.384 total
time=
      1.3s
[CV 1/5; 87/400] START bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=108
[CV 1/5; 85/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=182;, score=0.416 total
[CV 2/5; 85/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=182;, score=0.417 total
time= 1.4s
[CV 2/5; 87/400] START bootstrap=True, max_depth=5, max_features=None,
min samples leaf=3, min samples split=8, n estimators=108
[CV 3/5; 87/400] START bootstrap=True, max depth=5, max features=None,
min samples leaf=3, min samples split=8, n estimators=108
[CV 3/5; 85/400] END bootstrap=True, max_depth=5, max_features=None,
min samples leaf=3, min samples split=8, n estimators=182;, score=0.351 total
time= 1.5s
[CV 5/5; 85/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=182;, score=0.390 total
time=
      1.4s
[CV 4/5; 87/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=108
[CV 5/5; 87/400] START bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=108
[CV 5/5; 86/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=116;, score=0.389 total
time= 0.8s
[CV 4/5; 86/400] END bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=116;, score=0.374 total
time=
      0.8s
[CV 1/5; 88/400] START bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=96
[CV 2/5; 88/400] START bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=96
[CV 2/5; 86/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=116;, score=0.399 total
time=
      0.9s
[CV 1/5; 86/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=116;, score=0.416 total
time=
      1.0s
```

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[CV 3/5; 88/400] START bootstrap=False, max depth=7, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=96
[CV 4/5; 88/400] START bootstrap=False, max depth=7, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=96
[CV 3/5; 86/400] END bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=116;, score=0.346 total
time= 0.9s
[CV 5/5; 88/400] START bootstrap=False, max depth=7, max features=sqrt,
min samples leaf=3, min samples split=9, n estimators=96
[CV 2/5; 87/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=108;, score=0.399 total
       0.8s
[CV 1/5; 87/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=108;, score=0.413 total
[CV 1/5; 89/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=6
[CV 2/5; 89/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=6
[CV 3/5; 87/400] END bootstrap=True, max depth=5, max features=None,
min samples leaf=3, min samples split=8, n estimators=108;, score=0.351 total
time= 0.9s
[CV 3/5; 89/400] START bootstrap=False, max depth=16, max features=None,
min samples leaf=3, min samples split=5, n estimators=6
[CV 4/5; 87/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=108;, score=0.372 total
time= 0.8s
[CV 4/5; 89/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=6
[CV 5/5; 87/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=108;, score=0.390 total
time= 0.8s
[CV 5/5; 89/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=6
[CV 1/5; 89/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=6;, score=0.416 total
time= 0.2s
[CV 1/5; 90/400] START bootstrap=False, max depth=13, max features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=32
[CV 4/5; 88/400] END bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=96;, score=0.380 total
      0.5s
time=
[CV 2/5; 90/400] START bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=32
[CV 2/5; 88/400] END bootstrap=False, max_depth=7, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=96;, score=0.390 total
time=
       0.5s
[CV 3/5; 90/400] START bootstrap=False, max_depth=13, max_features=None,
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min_samples_leaf=1, min_samples_split=3, n_estimators=32
[CV 3/5; 88/400] END bootstrap=False, max depth=7, max features=sqrt,
min samples leaf=3, min samples split=9, n estimators=96;, score=0.373 total
time= 0.5s
[CV 4/5; 90/400] START bootstrap=False, max depth=13, max features=None,
min samples leaf=1, min samples split=3, n estimators=32
[CV 1/5; 88/400] END bootstrap=False, max depth=7, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=96;, score=0.403 total
time=
      0.5s
[CV 5/5; 90/400] START bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=32
[CV 3/5; 89/400] END bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=6;, score=0.388 total
time=
       0.2s
[CV 5/5; 88/400] END bootstrap=False, max depth=7, max features=sqrt,
min samples leaf=3, min samples split=9, n estimators=96;, score=0.382 total
time=
      0.5s
[CV 1/5; 91/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=152
[CV 2/5; 91/400] START bootstrap=False, max depth=12, max features=None,
min samples leaf=2, min samples split=6, n estimators=152
[CV 2/5; 89/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=6;, score=0.406 total
time=
      0.3s
[CV 3/5; 91/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=152
[CV 4/5; 89/400] END bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=6;, score=0.390 total
[CV 4/5; 91/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=152
[CV 5/5; 89/400] END bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=6;, score=0.402 total
time=
      0.2s
[CV 5/5; 91/400] START bootstrap=False, max depth=12, max features=None,
min samples leaf=2, min samples split=6, n estimators=152
[CV 3/5; 90/400] END bootstrap=False, max depth=13, max features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=32;, score=0.391 total
time= 0.8s
[CV 1/5; 92/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168
[CV 5/5; 90/400] END bootstrap=False, max_depth=13, max_features=None,
min samples leaf=1, min samples split=3, n estimators=32;, score=0.380 total
time=
      0.8s
[CV 1/5; 90/400] END bootstrap=False, max_depth=13, max_features=None,
min samples leaf=1, min samples split=3, n estimators=32;, score=0.431 total
time=
      0.9s
[CV 3/5; 92/400] START bootstrap=False, max depth=5, max features=sqrt,
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min_samples_leaf=2, min_samples_split=8, n_estimators=168
[CV 2/5; 92/400] START bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168
[CV 2/5; 90/400] END bootstrap=False, max_depth=13, max_features=None,
min samples leaf=1, min samples split=3, n estimators=32;, score=0.383 total
time=
       0.9s
[CV 4/5; 92/400] START bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168
[CV 4/5; 90/400] END bootstrap=False, max depth=13, max features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=32;, score=0.373 total
time= 0.9s
[CV 5/5; 92/400] START bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168
[CV 1/5; 92/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168;, score=0.417 total
time=
      0.7s
[CV 1/5; 93/400] START bootstrap=True, max depth=10, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=28
[CV 3/5; 92/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min samples leaf=2, min samples split=8, n estimators=168;, score=0.359 total
time=
      0.7s
[CV 2/5; 93/400] START bootstrap=True, max depth=10, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=28
[CV 5/5; 92/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168;, score=0.393 total
time=
      0.7s
[CV 2/5; 92/400] END bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168;, score=0.410 total
[CV 3/5; 93/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=28
[CV 4/5; 93/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=28
[CV 4/5; 92/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min samples leaf=2, min samples split=8, n estimators=168;, score=0.390 total
time= 0.8s
[CV 5/5; 93/400] START bootstrap=True, max depth=10, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=28
[CV 1/5; 93/400] END bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=28;, score=0.420 total
time=
      0.4s
[CV 2/5; 93/400] END bootstrap=True, max depth=10, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=28;, score=0.379 total
time=
      0.3s
[CV 1/5; 94/400] START bootstrap=True, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=14
[CV 2/5; 94/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=14
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[CV 4/5; 93/400] END bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=28;, score=0.376 total
time=
      0.4s
[CV 3/5; 94/400] START bootstrap=True, max_depth=17, max_features=None,
min samples leaf=2, min samples split=7, n estimators=14
[CV 3/5; 93/400] END bootstrap=True, max_depth=10, max_features=None,
min samples leaf=3, min samples split=2, n estimators=28;, score=0.394 total
time=
      0.4s
[CV 4/5; 94/400] START bootstrap=True, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=14
[CV 5/5; 93/400] END bootstrap=True, max depth=10, max features=None,
min samples leaf=3, min samples split=2, n estimators=28;, score=0.409 total
time=
      0.4s
[CV 5/5; 94/400] START bootstrap=True, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=14
[CV 1/5; 94/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=14;, score=0.417 total
time= 0.3s
[CV 1/5; 95/400] START bootstrap=True, max_depth=5, max_features=None,
min samples leaf=3, min samples split=2, n estimators=82
[CV 2/5; 94/400] END bootstrap=True, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=14;, score=0.384 total
time= 0.3s
[CV 2/5; 95/400] START bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=82
[CV 3/5; 94/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=2, min samples split=7, n estimators=14;, score=0.418 total
time=
      0.3s
[CV 3/5; 95/400] START bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=82
[CV 4/5; 94/400] END bootstrap=True, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=14;, score=0.422 total
time=
      0.3s
[CV 4/5; 95/400] START bootstrap=True, max_depth=5, max_features=None,
min samples leaf=3, min samples split=2, n estimators=82
[CV 5/5; 94/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=2, min samples split=7, n estimators=14;, score=0.426 total
time=
      0.2s
[CV 5/5; 95/400] START bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=82
[CV 1/5; 95/400] END bootstrap=True, max_depth=5, max_features=None,
min samples leaf=3, min samples split=2, n estimators=82;, score=0.414 total
      0.6s
[CV 1/5; 96/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=186
[CV 2/5; 95/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=82;, score=0.405 total
time=
      0.7s
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[CV 2/5; 96/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=186
[CV 4/5; 95/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=82;, score=0.370 total
time= 0.6s
[CV 3/5; 95/400] END bootstrap=True, max depth=5, max features=None,
min samples leaf=3, min samples split=2, n estimators=82;, score=0.347 total
time=
      0.6s
[CV 3/5; 96/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=186
[CV 4/5; 96/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=186
[CV 5/5; 95/400] END bootstrap=True, max_depth=5, max_features=None,
min samples leaf=3, min samples split=2, n estimators=82;, score=0.396 total
       0.6s
[CV 5/5; 96/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=186
[CV 1/5; 91/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=152;, score=0.418 total
time=
      3.9s
[CV 1/5; 97/400] START bootstrap=True, max depth=12, max features=None,
min samples leaf=1, min samples split=9, n estimators=72
[CV 2/5; 91/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=152;, score=0.376 total
time= 3.9s
[CV 2/5; 97/400] START bootstrap=True, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=72
[CV 4/5; 91/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=152;, score=0.365 total
time=
       3.9s
[CV 3/5; 97/400] START bootstrap=True, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=72
[CV 5/5; 91/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=152;, score=0.389 total
time= 4.0s
[CV 4/5; 97/400] START bootstrap=True, max depth=12, max features=None,
min samples leaf=1, min samples split=9, n estimators=72
[CV 3/5; 91/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=152;, score=0.336 total
      4.1s
time=
[CV 5/5; 97/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=72
[CV 2/5; 96/400] END bootstrap=False, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=186;, score=0.379 total
time=
        2.1s
[CV 1/5; 98/400] START bootstrap=True, max depth=11, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=78
[CV 1/5; 96/400] END bootstrap=False, max_depth=5, max_features=None,
```

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min_samples_leaf=2, min_samples_split=5, n_estimators=186;, score=0.407 total
time=
      2.3s
[CV 1/5; 97/400] END bootstrap=True, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=72;, score=0.438 total
time= 1.1s
[CV 2/5; 98/400] START bootstrap=True, max depth=11, max features=sqrt,
min samples leaf=3, min samples split=7, n estimators=78
[CV 3/5; 98/400] START bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=78
[CV 2/5; 97/400] END bootstrap=True, max_depth=12, max_features=None,
min samples leaf=1, min samples split=9, n estimators=72;, score=0.387 total
time=
      1.1s
[CV 4/5; 98/400] START bootstrap=True, max depth=11, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=78
[CV 3/5; 97/400] END bootstrap=True, max_depth=12, max_features=None,
min samples leaf=1, min samples split=9, n estimators=72;, score=0.396 total
time=
      1.2s
[CV 4/5; 96/400] END bootstrap=False, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=186;, score=0.381 total
time=
       2.2s
[CV 5/5; 98/400] START bootstrap=True, max depth=11, max features=sqrt,
min samples leaf=3, min samples split=7, n estimators=78
[CV 1/5; 99/400] START bootstrap=True, max_depth=20, max_features=None,
min samples leaf=2, min samples split=5, n estimators=76
[CV 5/5; 97/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=72;, score=0.426 total
time=
      1.1s
[CV 2/5; 99/400] START bootstrap=True, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=76
[CV 3/5; 96/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=186;, score=0.348 total
       2.3s
[CV 3/5; 99/400] START bootstrap=True, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=76
[CV 5/5; 96/400] END bootstrap=False, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=186;, score=0.386 total
time= 2.2s
[CV 4/5; 99/400] START bootstrap=True, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=76
[CV 4/5; 97/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=72;, score=0.417 total
      1.2s
time=
[CV 5/5; 99/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=76
[CV 1/5; 98/400] END bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=78;, score=0.417 total
time=
      0.4s
[CV 1/5; 100/400] START bootstrap=False, max depth=19, max features=sqrt,
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min_samples_leaf=2, min_samples_split=3, n_estimators=14
[CV 3/5; 98/400] END bootstrap=True, max depth=11, max features=sqrt,
min samples leaf=3, min samples split=7, n estimators=78;, score=0.409 total
time= 0.4s
[CV 2/5; 98/400] END bootstrap=True, max depth=11, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=78;, score=0.399 total
[CV 2/5; 100/400] START bootstrap=False, max_depth=19, max_features=sqrt,
min samples leaf=2, min samples split=3, n estimators=14
[CV 3/5; 100/400] START bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=14
[CV 4/5; 98/400] END bootstrap=True, max depth=11, max features=sqrt,
min samples leaf=3, min samples split=7, n estimators=78;, score=0.409 total
time=
      0.4s
[CV 4/5; 100/400] START bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=14
[CV 1/5; 100/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min samples leaf=2, min samples split=3, n estimators=14;, score=0.442 total
time=
      0.2s
[CV 5/5; 100/400] START bootstrap=False, max depth=19, max features=sqrt,
min samples leaf=2, min samples split=3, n estimators=14
[CV 5/5; 98/400] END bootstrap=True, max depth=11, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=78;, score=0.422 total
time=
      0.4s
[CV 1/5; 101/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=180
[CV 3/5; 100/400] END bootstrap=False, max depth=19, max features=sqrt,
min samples leaf=2, min samples split=3, n estimators=14;, score=0.372 total
[CV 2/5; 101/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=180
[CV 2/5; 100/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min samples leaf=2, min samples split=3, n estimators=14;, score=0.385 total
time=
      0.2s
[CV 3/5; 101/400] START bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=180
[CV 4/5; 100/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=14;, score=0.369 total
time= 0.2s
[CV 4/5; 101/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=180
[CV 5/5; 100/400] END bootstrap=False, max depth=19, max features=sqrt,
min samples leaf=2, min samples split=3, n estimators=14;, score=0.389 total
time=
      0.2s
[CV 5/5; 101/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=180
[CV 1/5; 101/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=180;, score=0.429 total
```

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time=
       1.1s
[CV 2/5; 101/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=180;, score=0.416 total
time= 1.1s
[CV 1/5; 102/400] START bootstrap=False, max depth=8, max features=sqrt,
min samples leaf=2, min samples split=6, n estimators=190
[CV 2/5; 102/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=190
[CV 4/5; 101/400] END bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=180;, score=0.394 total
time= 1.1s
[CV 4/5; 99/400] END bootstrap=True, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=76;, score=0.399 total
time=
      1.5s
[CV 3/5; 101/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=180;, score=0.398 total
time=
      1.1s
[CV 3/5; 102/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=190
[CV 5/5; 101/400] END bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=180;, score=0.419 total
time= 1.0s
[CV 4/5; 102/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=190
[CV 5/5; 102/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=190
[CV 2/5; 99/400] END bootstrap=True, max depth=20, max features=None,
min samples leaf=2, min samples split=5, n estimators=76;, score=0.395 total
[CV 5/5; 99/400] END bootstrap=True, max_depth=20, max_features=None,
min samples leaf=2, min samples split=5, n estimators=76;, score=0.437 total
      1.5s
[CV 1/5; 103/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=94
[CV 2/5; 103/400] START bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=94
[CV 3/5; 103/400] START bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=94
[CV 3/5; 99/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=76;, score=0.413 total
time=
      1.6s
[CV 1/5; 99/400] END bootstrap=True, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=76;, score=0.432 total
time=
      1.6s
[CV 4/5; 103/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=94
[CV 5/5; 103/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=94
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[CV 2/5; 103/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=94;, score=0.396 total
time=
      0.6s
[CV 3/5; 103/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min samples leaf=1, min samples split=8, n estimators=94;, score=0.392 total
time=
      0.6s
[CV 1/5; 104/400] START bootstrap=True, max depth=18, max features=sqrt,
min samples leaf=2, min samples split=3, n estimators=166
[CV 1/5; 103/400] END bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=94;, score=0.414 total
time= 0.6s
[CV 2/5; 104/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=166
[CV 3/5; 104/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=166
[CV 5/5; 103/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=94;, score=0.430 total
time= 0.6s
[CV 4/5; 104/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min samples leaf=2, min samples split=3, n estimators=166
[CV 4/5; 103/400] END bootstrap=True, max depth=20, max features=sqrt,
min samples leaf=1, min samples split=8, n estimators=94;, score=0.396 total
time= 0.7s
[CV 5/5; 104/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=166
[CV 1/5; 102/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=190;, score=0.396 total
time=
      1.1s
[CV 1/5; 105/400] START bootstrap=True, max depth=18, max features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=16
[CV 2/5; 102/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=190;, score=0.388 total
time=
      1.1s
[CV 4/5; 102/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=2, min samples split=6, n estimators=190;, score=0.374 total
time= 1.1s
[CV 2/5; 105/400] START bootstrap=True, max depth=18, max features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=16
[CV 3/5; 105/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=16
[CV 5/5; 102/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=190;, score=0.394 total
[CV 4/5; 105/400] START bootstrap=True, max depth=18, max features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=16
[CV 3/5; 102/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=190;, score=0.373 total
time=
      1.2s
```

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[CV 5/5; 105/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=16
[CV 1/5; 105/400] END bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=16;, score=0.425 total
time= 0.3s
[CV 1/5; 106/400] START bootstrap=False, max depth=5, max features=sqrt,
min samples leaf=1, min samples split=3, n estimators=96
[CV 2/5; 105/400] END bootstrap=True, max_depth=18, max_features=None,
min samples leaf=2, min samples split=6, n estimators=16;, score=0.381 total
time=
      0.3s
[CV 2/5; 106/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=96
[CV 4/5; 105/400] END bootstrap=True, max_depth=18, max_features=None,
min samples leaf=2, min samples split=6, n estimators=16;, score=0.385 total
[CV 3/5; 106/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=96
[CV 3/5; 105/400] END bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=16;, score=0.399 total
time=
      0.3s
[CV 4/5; 106/400] START bootstrap=False, max depth=5, max features=sqrt,
min samples leaf=1, min samples split=3, n estimators=96
[CV 5/5; 105/400] END bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=16;, score=0.424 total
time= 0.3s
[CV 5/5; 106/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=96
[CV 1/5; 106/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min samples leaf=1, min samples split=3, n estimators=96;, score=0.414 total
time=
      0.4s
[CV 1/5; 107/400] START bootstrap=False, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=140
[CV 2/5; 104/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=166;, score=0.398 total
time=
      1.1s
[CV 2/5; 107/400] START bootstrap=False, max depth=17, max features=None,
min samples leaf=2, min samples split=9, n estimators=140
[CV 4/5; 104/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=166;, score=0.406 total
time=
      1.1s
[CV 3/5; 107/400] START bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=140
[CV 3/5; 104/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=166;, score=0.402 total
time=
       1.2s
[CV 5/5; 106/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=96;, score=0.387 total
time=
       0.4s
```

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[CV 4/5; 107/400] START bootstrap=False, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=140
[CV 4/5; 106/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=96;, score=0.391 total
time= 0.4s
[CV 2/5; 106/400] END bootstrap=False, max depth=5, max features=sqrt,
min samples leaf=1, min samples split=3, n estimators=96;, score=0.406 total
time= 0.4s
[CV 5/5; 107/400] START bootstrap=False, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=140
[CV 3/5; 106/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min samples leaf=1, min samples split=3, n estimators=96;, score=0.359 total
time=
      0.4s
[CV 1/5; 108/400] START bootstrap=True, max depth=15, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=162
[CV 1/5; 104/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=166;, score=0.422 total
time= 1.2s
[CV 2/5; 108/400] START bootstrap=True, max_depth=15, max_features=None,
min samples leaf=3, min samples split=9, n estimators=162
[CV 3/5; 108/400] START bootstrap=True, max depth=15, max features=None,
min samples leaf=3, min samples split=9, n estimators=162
[CV 4/5; 108/400] START bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=162
[CV 5/5; 104/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=166;, score=0.422 total
time=
      1.1s
[CV 5/5; 108/400] START bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=162
[CV 3/5; 108/400] END bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=162;, score=0.412 total
[CV 1/5; 108/400] END bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=162;, score=0.428 total
time= 2.8s
[CV 1/5; 109/400] START bootstrap=True, max depth=8, max features=sqrt,
min samples leaf=2, min samples split=4, n estimators=56
[CV 2/5; 109/400] START bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=56
[CV 5/5; 108/400] END bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=162;, score=0.419 total
       2.8s
time=
[CV 2/5; 108/400] END bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=162;, score=0.392 total
time=
       2.8s
[CV 3/5; 109/400] START bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=56
[CV 4/5; 109/400] START bootstrap=True, max depth=8, max features=sqrt,
```

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min_samples_leaf=2, min_samples_split=4, n_estimators=56
[CV 4/5; 108/400] END bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=162;, score=0.395 total
time=
       2.8s
[CV 5/5; 109/400] START bootstrap=True, max depth=8, max features=sqrt,
min samples leaf=2, min samples split=4, n estimators=56
[CV 2/5; 109/400] END bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=56;, score=0.396 total
time=
      0.2s
[CV 1/5; 110/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=154
[CV 1/5; 109/400] END bootstrap=True, max depth=8, max features=sqrt,
min samples leaf=2, min samples split=4, n estimators=56;, score=0.409 total
time=
      0.2s
[CV 3/5; 109/400] END bootstrap=True, max_depth=8, max_features=sqrt,
min samples leaf=2, min samples split=4, n estimators=56;, score=0.377 total
time=
      0.2s
[CV 2/5; 110/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=154
[CV 3/5; 110/400] START bootstrap=False, max depth=8, max features=sqrt,
min samples leaf=3, min samples split=3, n estimators=154
[CV 4/5; 109/400] END bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=56;, score=0.399 total
time=
      0.2s
[CV 5/5; 109/400] END bootstrap=True, max_depth=8, max_features=sqrt,
min samples leaf=2, min samples split=4, n estimators=56;, score=0.390 total
time=
      0.2s
[CV 4/5; 110/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=154
[CV 5/5; 110/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=154
[CV 1/5; 110/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=154;, score=0.409 total
time=
      0.9s
[CV 1/5; 111/400] START bootstrap=True, max_depth=6, max_features=None,
min samples leaf=3, min samples split=5, n estimators=128
[CV 2/5; 110/400] END bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=154;, score=0.390 total
time= 0.9s
[CV 2/5; 111/400] START bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=128
[CV 5/5; 110/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=154;, score=0.391 total
time=
      0.8s
[CV 3/5; 110/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=154;, score=0.376 total
time=
      0.9s
[CV 3/5; 111/400] START bootstrap=True, max depth=6, max features=None,
```

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min_samples_leaf=3, min_samples_split=5, n_estimators=128
[CV 4/5; 110/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=154;, score=0.381 total
time= 0.9s
[CV 4/5; 111/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=128
[CV 5/5; 111/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=128
[CV 2/5; 107/400] END bootstrap=False, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=140;, score=0.417 total
time= 4.3s
[CV 1/5; 112/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=78
[CV 1/5; 107/400] END bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=140;, score=0.416 total
time=
      4.5s
[CV 5/5; 107/400] END bootstrap=False, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=140;, score=0.398 total
time= 4.4s
[CV 4/5; 107/400] END bootstrap=False, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=140;, score=0.406 total
time= 4.4s
[CV 2/5; 112/400] START bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=78
[CV 3/5; 112/400] START bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=78
[CV 4/5; 112/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=78
[CV 3/5; 107/400] END bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=140;, score=0.398 total
time=
      4.5s
[CV 5/5; 112/400] START bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=78
[CV 1/5; 112/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=78;, score=0.422 total
time= 0.5s
[CV 1/5; 113/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=138
[CV 2/5; 112/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=78;, score=0.396 total
time=
      0.5s
[CV 3/5; 112/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=78;, score=0.368 total
time=
      0.5s
[CV 2/5; 113/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=138
[CV 3/5; 113/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=138
```

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[CV 1/5; 111/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=128;, score=0.410 total
time=
      1.1s
[CV 5/5; 112/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=78;, score=0.389 total
time=
      0.6s
[CV 4/5; 113/400] START bootstrap=False, max depth=12, max features=sqrt,
min samples leaf=2, min samples split=7, n estimators=138
[CV 4/5; 112/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=78;, score=0.370 total
time= 0.6s
[CV 5/5; 113/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=138
[CV 1/5; 114/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=148
[CV 3/5; 111/400] END bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=128;, score=0.369 total
      1.1s[CV 2/5; 111/400] END bootstrap=True, max_depth=6,
max_features=None, min_samples_leaf=3, min_samples_split=5, n_estimators=128;,
score=0.388 total time=
                          1.2s
[CV 2/5; 114/400] START bootstrap=True, max depth=17, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=148
[CV 3/5; 114/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=148
[CV 5/5; 111/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=128;, score=0.391 total
time=
      1.2s
[CV 4/5; 114/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=148
[CV 4/5; 111/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=128;, score=0.364 total
time= 1.2s
[CV 5/5; 114/400] START bootstrap=True, max_depth=17, max_features=None,
min samples leaf=1, min samples split=5, n estimators=148
[CV 1/5; 113/400] END bootstrap=False, max depth=12, max features=sqrt,
min samples leaf=2, min samples split=7, n estimators=138;, score=0.427 total
time=
      1.1s
[CV 1/5; 115/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=178
[CV 2/5; 113/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=138;, score=0.409 total
[CV 3/5; 113/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=138;, score=0.369 total
[CV 2/5; 115/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=178
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[CV 5/5; 113/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=138;, score=0.407 total
time=
      1.0s
[CV 3/5; 115/400] START bootstrap=True, max_depth=10, max_features=None,
min samples leaf=1, min samples split=7, n estimators=178
[CV 4/5; 115/400] START bootstrap=True, max depth=10, max features=None,
min samples leaf=1, min samples split=7, n estimators=178
[CV 4/5; 113/400] END bootstrap=False, max depth=12, max features=sqrt,
min samples leaf=2, min samples split=7, n estimators=138;, score=0.357 total
time=
      1.1s
[CV 5/5; 115/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=178
[CV 1/5; 114/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=148;, score=0.417 total
[CV 1/5; 116/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=184
[CV 2/5; 114/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=148;, score=0.384 total
time=
      3.0s
[CV 2/5; 116/400] START bootstrap=True, max depth=14, max features=None,
min samples leaf=3, min samples split=7, n estimators=184
[CV 3/5; 114/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=1, min samples split=5, n estimators=148;, score=0.412 total
       3.0s[CV 4/5; 114/400] END bootstrap=True, max_depth=17,
max features=None, min samples leaf=1, min samples split=5, n estimators=148;,
score=0.387 total time=
                         3.0s
[CV 3/5; 116/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=184
[CV 4/5; 116/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=184
[CV 5/5; 114/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=148;, score=0.429 total
time=
      3.0s
[CV 5/5; 116/400] START bootstrap=True, max depth=14, max features=None,
min samples leaf=3, min samples split=7, n estimators=184
[CV 1/5; 115/400] END bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=178;, score=0.428 total
time=
       2.5s
[CV 1/5; 117/400] START bootstrap=True, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=174
[CV 3/5; 115/400] END bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=178;, score=0.396 total
time=
        2.4s
[CV 2/5; 117/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=174
[CV 2/5; 115/400] END bootstrap=True, max_depth=10, max_features=None,
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min_samples_leaf=1, min_samples_split=7, n_estimators=178;, score=0.394 total
time=
       2.5s
[CV 3/5; 117/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=174
[CV 4/5; 115/400] END bootstrap=True, max depth=10, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=178;, score=0.406 total
time= 2.5s
[CV 4/5; 117/400] START bootstrap=True, max depth=5, max features=sqrt,
min samples leaf=3, min samples split=3, n estimators=174
[CV 5/5; 115/400] END bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=178;, score=0.422 total
       2.5s
time=
[CV 5/5; 117/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=174
[CV 1/5; 117/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=174;, score=0.416 total
time=
      0.4s
[CV 1/5; 118/400] START bootstrap=False, max depth=19, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=130
[CV 3/5; 117/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=174;, score=0.365 total
time= 0.5s
[CV 2/5; 118/400] START bootstrap=False, max_depth=19, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=130
[CV 2/5; 117/400] END bootstrap=True, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=174;, score=0.395 total
time=
      0.6s
[CV 3/5; 118/400] START bootstrap=False, max depth=19, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=130
[CV 4/5; 117/400] END bootstrap=True, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=174;, score=0.395 total
time= 0.5s
[CV 4/5; 118/400] START bootstrap=False, max depth=19, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=130
[CV 5/5; 117/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=174;, score=0.379 total
time= 0.5s
[CV 5/5; 118/400] START bootstrap=False, max_depth=19, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=130
[CV 1/5; 116/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=184;, score=0.439 total
       3.1s
time=
[CV 1/5; 119/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=28
[CV 4/5; 116/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=184;, score=0.399 total
time=
       3.2s
```

[CV 2/5; 119/400] START bootstrap=True, max\_depth=16, max\_features=None,

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min_samples_leaf=2, min_samples_split=4, n_estimators=28
[CV 3/5; 116/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=184;, score=0.403 total
       3.2s
[CV 3/5; 119/400] START bootstrap=True, max depth=16, max features=None,
min samples leaf=2, min samples split=4, n estimators=28
[CV 5/5; 116/400] END bootstrap=True, max depth=14, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=184;, score=0.423 total
time=
      3.1s
[CV 4/5; 119/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=28
[CV 2/5; 116/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=184;, score=0.388 total
time=
       3.3s
[CV 5/5; 119/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=28
[CV 1/5; 119/400] END bootstrap=True, max_depth=16, max_features=None,
min samples leaf=2, min samples split=4, n estimators=28;, score=0.433 total
time=
      0.5s
[CV 1/5; 120/400] START bootstrap=True, max depth=None, max features=sqrt,
min samples leaf=3, min samples split=5, n estimators=140
[CV 2/5; 119/400] END bootstrap=True, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=28;, score=0.383 total
time=
      0.6s
[CV 2/5; 120/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=140
[CV 4/5; 119/400] END bootstrap=True, max_depth=16, max_features=None,
min samples leaf=2, min samples split=4, n estimators=28;, score=0.391 total
[CV 3/5; 119/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=28;, score=0.407 total
time= 0.5s
[CV 3/5; 120/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=140
[CV 5/5; 119/400] END bootstrap=True, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=28;, score=0.441 total
time= 0.5s
[CV 4/5; 120/400] START bootstrap=True, max depth=None, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=140
[CV 5/5; 120/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=140
[CV 1/5; 120/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=140;, score=0.417 total
time=
      1.0s
[CV 1/5; 121/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=158
[CV 5/5; 120/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=140;, score=0.422 total
```

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time=
        0.9s
[CV 2/5; 121/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=158
[CV 2/5; 120/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min samples leaf=3, min samples split=5, n estimators=140;, score=0.398 total
time=
       1.0s
[CV 3/5; 121/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=158
[CV 4/5; 120/400] END bootstrap=True, max depth=None, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=140;, score=0.390 total
time= 1.1s
[CV 4/5; 121/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=158
[CV 3/5; 120/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=140;, score=0.407 total
time= 1.1s
[CV 5/5; 121/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=158
[CV 1/5; 118/400] END bootstrap=False, max_depth=19, max_features=None,
min samples leaf=1, min samples split=4, n estimators=130;, score=0.396 total
time= 4.3s
[CV 1/5; 122/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=106
[CV 2/5; 118/400] END bootstrap=False, max_depth=19, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=130;, score=0.418 total
time=
       4.4s
[CV 2/5; 122/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=106
[CV 4/5; 118/400] END bootstrap=False, max depth=19, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=130;, score=0.383 total
      4.4s
time=
[CV 3/5; 122/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=106
[CV 3/5; 118/400] END bootstrap=False, max_depth=19, max_features=None,
min samples leaf=1, min samples split=4, n estimators=130;, score=0.379 total
time= 4.6s
[CV 4/5; 122/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=106
[CV 5/5; 118/400] END bootstrap=False, max_depth=19, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=130;, score=0.413 total
time=
      4.5s
[CV 5/5; 122/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=106
[CV 1/5; 121/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=158;, score=0.407 total
[CV 1/5; 123/400] START bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196
```

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[CV 5/5; 121/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=158;, score=0.386 total
time=
      1.8s
[CV 2/5; 123/400] START bootstrap=True, max_depth=6, max_features=None,
min samples leaf=3, min samples split=9, n estimators=196
[CV 2/5; 121/400] END bootstrap=False, max depth=5, max features=None,
min samples leaf=2, min samples split=9, n estimators=158;, score=0.379 total
time=
      1.9s
[CV 3/5; 123/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196
[CV 3/5; 121/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=158;, score=0.348 total
time=
       2.0s
[CV 4/5; 123/400] START bootstrap=True, max depth=6, max features=None,
min samples leaf=3, min samples split=9, n estimators=196[CV 4/5; 121/400] END
bootstrap=False, max_depth=5, max_features=None, min_samples_leaf=2,
min_samples_split=9, n_estimators=158;, score=0.381 total time=
[CV 5/5; 123/400] START bootstrap=True, max_depth=6, max_features=None,
min samples leaf=3, min samples split=9, n estimators=196
[CV 1/5; 122/400] END bootstrap=False, max depth=8, max features=None,
min samples leaf=1, min samples split=4, n estimators=106;, score=0.413 total
      1.9s
[CV 1/5; 124/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=128
[CV 2/5; 122/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=106;, score=0.372 total
time=
       2.0s
[CV 2/5; 124/400] START bootstrap=True, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=128
[CV 3/5; 122/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=106;, score=0.347 total
time=
      1.9s
[CV 3/5; 124/400] START bootstrap=True, max_depth=12, max_features=None,
min samples leaf=3, min samples split=6, n estimators=128
[CV 4/5; 122/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=1, min samples split=4, n estimators=106;, score=0.348 total
time=
       2.0s
[CV 5/5; 122/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=106;, score=0.372 total
time=
      1.9s
[CV 4/5; 124/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=128
[CV 5/5; 124/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=128
[CV 1/5; 123/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196;, score=0.410 total
time=
      1.8s
```

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[CV 1/5; 125/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=96
[CV 2/5; 123/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196;, score=0.395 total
time= 1.7s
[CV 2/5; 125/400] START bootstrap=True, max depth=10, max features=None,
min samples leaf=2, min samples split=8, n estimators=96
[CV 3/5; 123/400] END bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196;, score=0.369 total
time=
      1.8s
[CV 3/5; 125/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=96
[CV 5/5; 123/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196;, score=0.394 total
[CV 4/5; 123/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196;, score=0.381 total
time= 1.7s
[CV 4/5; 125/400] START bootstrap=True, max_depth=10, max_features=None,
min samples leaf=2, min samples split=8, n estimators=96
[CV 5/5; 125/400] START bootstrap=True, max depth=10, max features=None,
min samples leaf=2, min samples split=8, n estimators=96
[CV 1/5; 124/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=128;, score=0.444 total
time= 1.9s
[CV 1/5; 126/400] START bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=84
[CV 3/5; 124/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=128;, score=0.396 total
time=
       2.0s
[CV 2/5; 126/400] START bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=84
[CV 2/5; 124/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=128;, score=0.392 total
time=
      2.0s
[CV 3/5; 126/400] START bootstrap=False, max depth=13, max features=sqrt,
min samples leaf=3, min samples split=9, n estimators=84
[CV 5/5; 124/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=128;, score=0.431 total
      1.9s
[CV 4/5; 124/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=128;, score=0.398 total
[CV 4/5; 126/400] START bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=84
[CV 5/5; 126/400] START bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=84
[CV 1/5; 125/400] END bootstrap=True, max_depth=10, max_features=None,
```

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min samples leaf=2, min samples split=8, n estimators=96;, score=0.451 total
time=
      1.3s
[CV 2/5; 125/400] END bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=96;, score=0.398 total
time= 1.3s
[CV 1/5; 127/400] START bootstrap=True, max depth=9, max features=None,
min samples leaf=2, min samples split=3, n estimators=14
[CV 2/5; 127/400] START bootstrap=True, max_depth=9, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=14
[CV 1/5; 126/400] END bootstrap=False, max_depth=13, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=84;, score=0.416 total
      0.7s
time=
[CV 3/5; 127/400] START bootstrap=True, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=14
[CV 5/5; 125/400] END bootstrap=True, max_depth=10, max_features=None,
min samples leaf=2, min samples split=8, n estimators=96;, score=0.424 total
time=
      1.2s
[CV 4/5; 127/400] START bootstrap=True, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=14
[CV 2/5; 127/400] END bootstrap=True, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=14;, score=0.368 total
time= 0.2s
[CV 3/5; 125/400] END bootstrap=True, max depth=10, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=96;, score=0.384 total
time= 1.4s
[CV 5/5; 127/400] START bootstrap=True, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=14
[CV 1/5; 128/400] START bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=46
[CV 1/5; 127/400] END bootstrap=True, max_depth=9, max_features=None,
min samples leaf=2, min samples split=3, n estimators=14;, score=0.417 total
time= 0.2s
[CV 2/5; 128/400] START bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=46
[CV 4/5; 125/400] END bootstrap=True, max depth=10, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=96;, score=0.407 total
time= 1.4s
[CV 3/5; 128/400] START bootstrap=True, max depth=15, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=46
[CV 3/5; 127/400] END bootstrap=True, max_depth=9, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=14;, score=0.392 total
      0.2s
time=
[CV 4/5; 128/400] START bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=46
[CV 4/5; 127/400] END bootstrap=True, max_depth=9, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=14;, score=0.403 total
time=
      0.2s
[CV 5/5; 128/400] START bootstrap=True, max_depth=15, max_features=None,
```

min\_samples\_leaf=1, min\_samples\_split=6, n\_estimators=46 [CV 5/5; 127/400] END bootstrap=True, max depth=9, max features=None, min samples leaf=2, min samples split=3, n estimators=14;, score=0.407 total time= 0.2s[CV 1/5; 129/400] START bootstrap=True, max depth=17, max features=None, min\_samples\_leaf=3, min\_samples\_split=7, n\_estimators=182 [CV 3/5; 126/400] END bootstrap=False, max depth=13, max features=sqrt, min\_samples\_leaf=3, min\_samples\_split=9, n\_estimators=84;, score=0.379 total time= 0.7s[CV 2/5; 126/400] END bootstrap=False, max\_depth=13, max\_features=sqrt, min samples leaf=3, min samples split=9, n estimators=84;, score=0.399 total 0.7s[CV 2/5; 129/400] START bootstrap=True, max\_depth=17, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=7, n\_estimators=182 [CV 3/5; 129/400] START bootstrap=True, max\_depth=17, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=7, n\_estimators=182 [CV 4/5; 126/400] END bootstrap=False, max\_depth=13, max\_features=sqrt, min samples leaf=3, min samples split=9, n estimators=84;, score=0.403 total time= 0.8s [CV 4/5; 129/400] START bootstrap=True, max depth=17, max features=None, min\_samples\_leaf=3, min\_samples\_split=7, n\_estimators=182 [CV 5/5; 126/400] END bootstrap=False, max depth=13, max features=sqrt, min\_samples\_leaf=3, min\_samples\_split=9, n\_estimators=84;, score=0.394 total time= 0.7s [CV 5/5; 129/400] START bootstrap=True, max\_depth=17, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=7, n\_estimators=182 [CV 2/5; 128/400] END bootstrap=True, max\_depth=15, max\_features=None, min samples leaf=1, min samples split=6, n estimators=46;, score=0.391 total [CV 1/5; 130/400] START bootstrap=False, max depth=19, max features=sqrt, min\_samples\_leaf=3, min\_samples\_split=7, n\_estimators=44 [CV 1/5; 128/400] END bootstrap=True, max\_depth=15, max\_features=None, min samples leaf=1, min samples split=6, n estimators=46;, score=0.414 total time= 0.9s [CV 2/5; 130/400] START bootstrap=False, max depth=19, max features=sqrt, min\_samples\_leaf=3, min\_samples\_split=7, n\_estimators=44 [CV 4/5; 128/400] END bootstrap=True, max depth=15, max features=None, min\_samples\_leaf=1, min\_samples\_split=6, n\_estimators=46;, score=0.381 total time= 0.8s[CV 3/5; 130/400] START bootstrap=False, max\_depth=19, max\_features=sqrt, min\_samples\_leaf=3, min\_samples\_split=7, n\_estimators=44 [CV 3/5; 128/400] END bootstrap=True, max\_depth=15, max\_features=None, min samples leaf=1, min samples split=6, n estimators=46;, score=0.427 total time= 0.9s [CV 4/5; 130/400] START bootstrap=False, max depth=19, max features=sqrt, min\_samples\_leaf=3, min\_samples\_split=7, n\_estimators=44 [CV 5/5; 128/400] END bootstrap=True, max\_depth=15, max\_features=None, min samples leaf=1, min samples split=6, n estimators=46;, score=0.430 total

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0.8s
time=
[CV 5/5; 130/400] START bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=44
[CV 2/5; 130/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min samples leaf=3, min samples split=7, n estimators=44;, score=0.383 total
time=
       0.4s
[CV 1/5; 131/400] START bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=76
[CV 3/5; 130/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=44;, score=0.365 total
time= 0.4s
[CV 2/5; 131/400] START bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=76
[CV 4/5; 130/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=44;, score=0.388 total
time=
      0.4s
[CV 1/5; 130/400] END bootstrap=False, max depth=19, max features=sqrt,
min samples leaf=3, min samples split=7, n estimators=44;, score=0.422 total
time= 0.5s
[CV 3/5; 131/400] START bootstrap=False, max depth=13, max features=sqrt,
min samples leaf=3, min samples split=9, n estimators=76
[CV 4/5; 131/400] START bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=76
[CV 5/5; 130/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=44;, score=0.407 total
time=
       0.4s
[CV 5/5; 131/400] START bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=76
[CV 1/5; 131/400] END bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=76;, score=0.416 total
time=
      0.6s
[CV 1/5; 132/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=48
[CV 2/5; 131/400] END bootstrap=False, max_depth=13, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=76;, score=0.401 total
time= 0.6s
[CV 3/5; 131/400] END bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=76;, score=0.380 total
time= 0.6s
[CV 2/5; 132/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=48
[CV 4/5; 131/400] END bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=76;, score=0.402 total
time=
      0.6s
[CV 3/5; 132/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=48
[CV 4/5; 132/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=48
```

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[CV 5/5; 131/400] END bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=76;, score=0.394 total
time=
      0.6s
[CV 5/5; 132/400] START bootstrap=True, max_depth=10, max_features=None,
min samples leaf=2, min samples split=7, n estimators=48
[CV 1/5; 132/400] END bootstrap=True, max_depth=10, max_features=None,
min samples leaf=2, min samples split=7, n estimators=48;, score=0.442 total
time= 0.6s
[CV 1/5; 133/400] START bootstrap=False, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=112
[CV 3/5; 132/400] END bootstrap=True, max_depth=10, max_features=None,
min samples leaf=2, min samples split=7, n estimators=48;, score=0.384 total
time=
      0.6s
[CV 2/5; 132/400] END bootstrap=True, max depth=10, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=48;, score=0.391 total
time= 0.6s
[CV 2/5; 133/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=112
[CV 4/5; 132/400] END bootstrap=True, max_depth=10, max_features=None,
min samples leaf=2, min samples split=7, n estimators=48;, score=0.381 total
time= 0.6s
[CV 3/5; 133/400] START bootstrap=False, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=112
[CV 4/5; 133/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=112
[CV 5/5; 132/400] END bootstrap=True, max_depth=10, max_features=None,
min samples leaf=2, min samples split=7, n estimators=48;, score=0.427 total
time=
      0.7s
[CV 5/5; 133/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=112
[CV 1/5; 129/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=182;, score=0.425 total
time=
      3.4s
[CV 1/5; 134/400] START bootstrap=True, max_depth=17, max_features=None,
min samples leaf=1, min samples split=4, n estimators=182
[CV 2/5; 129/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=3, min samples split=7, n estimators=182;, score=0.395 total
time=
       3.4s
[CV 2/5; 134/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=182
[CV 3/5; 129/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=182;, score=0.407 total
[CV 3/5; 134/400] START bootstrap=True, max depth=17, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=182
[CV 5/5; 129/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=182;, score=0.444 total
time=
       3.4s
```

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[CV 4/5; 134/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=182
[CV 4/5; 129/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=182;, score=0.399 total
time= 3.4s
[CV 5/5; 134/400] START bootstrap=True, max depth=17, max features=None,
min samples leaf=1, min samples split=4, n estimators=182
[CV 1/5; 133/400] END bootstrap=False, max_depth=6, max_features=None,
min samples leaf=3, min samples split=6, n estimators=112;, score=0.406 total
time=
      1.5s
[CV 1/5; 135/400] START bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=16
[CV 3/5; 133/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=112;, score=0.357 total
[CV 2/5; 135/400] START bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=16
[CV 2/5; 133/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=112;, score=0.391 total
time=
      1.6s
[CV 3/5; 135/400] START bootstrap=True, max depth=None, max features=None,
min samples leaf=2, min samples split=6, n estimators=16
[CV 5/5; 133/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=112;, score=0.393 total
time= 1.6s
[CV 4/5; 135/400] START bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=16
[CV 4/5; 133/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=112;, score=0.372 total
time=
      1.7s
[CV 5/5; 135/400] START bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=16
[CV 1/5; 135/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=16;, score=0.405 total
time= 0.4s
[CV 1/5; 136/400] START bootstrap=True, max depth=17, max features=None,
min samples leaf=1, min samples split=7, n estimators=52
[CV 2/5; 135/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=16;, score=0.374 total
time=
      0.4s
[CV 2/5; 136/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=52
[CV 3/5; 135/400] END bootstrap=True, max_depth=None, max_features=None,
min samples leaf=2, min samples split=6, n estimators=16;, score=0.416 total
time=
       0.3s
[CV 3/5; 136/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=52
[CV 5/5; 135/400] END bootstrap=True, max_depth=None, max_features=None,
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min samples leaf=2, min samples split=6, n estimators=16;, score=0.423 total
time=
      0.3s
[CV 4/5; 135/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=16;, score=0.381 total
time= 0.4s
[CV 4/5; 136/400] START bootstrap=True, max depth=17, max features=None,
min samples leaf=1, min samples split=7, n estimators=52
[CV 5/5; 136/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=52
[CV 2/5; 136/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=1, min samples split=7, n estimators=52;, score=0.399 total
      1.0s
time=
[CV 1/5; 137/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=24
[CV 1/5; 136/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=1, min samples split=7, n estimators=52;, score=0.421 total
time=
      1.1s
[CV 2/5; 137/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=24
[CV 3/5; 136/400] END bootstrap=True, max depth=17, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=52;, score=0.429 total
time= 1.0s
[CV 3/5; 137/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=24
[CV 4/5; 136/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=1, min samples split=7, n estimators=52;, score=0.391 total
time=
      1.0s
[CV 4/5; 137/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=24
[CV 5/5; 136/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=1, min samples split=7, n estimators=52;, score=0.448 total
time= 1.0s
[CV 5/5; 137/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=24
[CV 1/5; 137/400] END bootstrap=True, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=24;, score=0.433 total
time= 0.5s
[CV 1/5; 138/400] START bootstrap=True, max depth=16, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=108
[CV 2/5; 137/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=24;, score=0.384 total
      0.4s
time=
[CV 2/5; 138/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=108
[CV 3/5; 137/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=24;, score=0.431 total
time=
       0.5s
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[CV 3/5; 138/400] START bootstrap=True, max\_depth=16, max\_features=None,

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min_samples_leaf=3, min_samples_split=5, n_estimators=108
[CV 4/5; 137/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=2, min samples split=9, n estimators=24;, score=0.394 total
time= 0.5s
[CV 5/5; 137/400] END bootstrap=True, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=24;, score=0.435 total
[CV 4/5; 138/400] START bootstrap=True, max depth=16, max features=None,
min samples leaf=3, min samples split=5, n estimators=108
[CV 5/5; 138/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=108
[CV 1/5; 134/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=182;, score=0.417 total
time=
       3.5s
[CV 1/5; 139/400] START bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=118
[CV 2/5; 134/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=182;, score=0.391 total
time=
      3.5s
[CV 2/5; 139/400] START bootstrap=False, max depth=15, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=118
[CV 3/5; 134/400] END bootstrap=True, max depth=17, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=182;, score=0.410 total
time=
      3.6s
[CV 3/5; 139/400] START bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=118
[CV 4/5; 134/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=182;, score=0.402 total
[CV 4/5; 139/400] START bootstrap=False, max depth=15, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=118
[CV 5/5; 134/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=182;, score=0.434 total
time=
       3.6s
[CV 5/5; 139/400] START bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=118
[CV 2/5; 138/400] END bootstrap=True, max depth=16, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=108;, score=0.399 total
time= 2.0s
[CV 1/5; 140/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=136
[CV 1/5; 138/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=108;, score=0.442 total
time=
       2.0s
[CV 2/5; 140/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=136
[CV 4/5; 138/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=108;, score=0.392 total
```

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time=
        1.9s
[CV 3/5; 140/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=136
[CV 5/5; 138/400] END bootstrap=True, max_depth=16, max_features=None,
min samples leaf=3, min samples split=5, n estimators=108;, score=0.438 total
time=
        2.0s
[CV 3/5; 138/400] END bootstrap=True, max depth=16, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=108;, score=0.421 total
       2.1s
[CV 5/5; 140/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=136
[CV 4/5; 140/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=136
[CV 1/5; 139/400] END bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=118;, score=0.414 total
time=
      3.3s
[CV 1/5; 141/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100
[CV 2/5; 139/400] END bootstrap=False, max_depth=15, max_features=None,
min samples leaf=2, min samples split=4, n estimators=118;, score=0.390 total
time=
      3.4s
[CV 2/5; 141/400] START bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100
[CV 1/5; 140/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=136;, score=0.424 total
time=
       2.8s
[CV 3/5; 141/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100
[CV 1/5; 141/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100;, score=0.413 total
time=
      0.4s
[CV 4/5; 141/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100
[CV 2/5; 140/400] END bootstrap=True, max_depth=19, max_features=None,
min samples leaf=2, min samples split=3, n estimators=136;, score=0.394 total
time=
       2.8s
[CV 5/5; 141/400] START bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100
[CV 3/5; 140/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=136;, score=0.405 total
time=
       2.8s
[CV 1/5; 142/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=8
[CV 5/5; 140/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=136;, score=0.431 total
[CV 2/5; 142/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=8
```

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[CV 2/5; 141/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100;, score=0.390 total
time=
      0.4s
[CV 3/5; 139/400] END bootstrap=False, max_depth=15, max_features=None,
min samples leaf=2, min samples split=4, n estimators=118;, score=0.399 total
time=
       3.6s
[CV 3/5; 142/400] START bootstrap=False, max depth=6, max features=None,
min samples leaf=1, min samples split=7, n estimators=8
[CV 4/5; 142/400] START bootstrap=False, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=8
[CV 1/5; 142/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=8;, score=0.406 total
time=
      0.1s
[CV 2/5; 142/400] END bootstrap=False, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=8;, score=0.392 total
time= 0.1s
[CV 5/5; 142/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=8
[CV 1/5; 143/400] START bootstrap=False, max_depth=6, max_features=None,
min samples leaf=1, min samples split=5, n estimators=38
[CV 4/5; 139/400] END bootstrap=False, max depth=15, max features=None,
min samples leaf=2, min samples split=4, n estimators=118;, score=0.373 total
time=
      3.6s
[CV 2/5; 143/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=38
[CV 4/5; 140/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=136;, score=0.388 total
time=
       2.8s
[CV 5/5; 139/400] END bootstrap=False, max depth=15, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=118;, score=0.411 total
time=
       3.6s
[CV 3/5; 143/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=38
[CV 4/5; 143/400] START bootstrap=False, max_depth=6, max_features=None,
min samples leaf=1, min samples split=5, n estimators=38
[CV 3/5; 142/400] END bootstrap=False, max depth=6, max features=None,
min samples leaf=1, min samples split=7, n estimators=8;, score=0.357 total
time=
      0.1s
[CV 5/5; 143/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=38
[CV 4/5; 142/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=8;, score=0.374 total
      0.1s
[CV 1/5; 144/400] START bootstrap=False, max depth=7, max features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=134
[CV 5/5; 142/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=8;, score=0.386 total
time=
       0.1s
```

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[CV 2/5; 144/400] START bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=134
[CV 4/5; 141/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100;, score=0.391 total
time= 0.3s
[CV 3/5; 144/400] START bootstrap=False, max depth=7, max features=sqrt,
min samples leaf=3, min samples split=4, n estimators=134
[CV 3/5; 141/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min samples leaf=3, min samples split=8, n estimators=100;, score=0.359 total
time=
      0.4s
[CV 4/5; 144/400] START bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=134
[CV 5/5; 141/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100;, score=0.387 total
       0.4s
[CV 5/5; 144/400] START bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=134
[CV 2/5; 143/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=38;, score=0.392 total
time=
      0.5s
[CV 1/5; 145/400] START bootstrap=False, max depth=5, max features=sqrt,
min samples leaf=2, min samples split=4, n estimators=30
[CV 4/5; 143/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=38;, score=0.374 total
time= 0.5s
[CV 1/5; 143/400] END bootstrap=False, max_depth=6, max_features=None,
min samples leaf=1, min samples split=5, n estimators=38;, score=0.406 total
time=
      0.6s
[CV 2/5; 145/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=30
[CV 3/5; 145/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=30
[CV 3/5; 143/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=38;, score=0.357 total
time= 0.6s
[CV 4/5; 145/400] START bootstrap=False, max depth=5, max features=sqrt,
min samples leaf=2, min samples split=4, n estimators=30
[CV 1/5; 145/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=30;, score=0.417 total
time= 0.1s
[CV 5/5; 145/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=30
[CV 5/5; 143/400] END bootstrap=False, max_depth=6, max_features=None,
min samples leaf=1, min samples split=5, n estimators=38;, score=0.386 total
time=
       0.6s
[CV 1/5; 146/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=168
[CV 3/5; 145/400] END bootstrap=False, max_depth=5, max_features=sqrt,
```

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min samples leaf=2, min samples split=4, n estimators=30;, score=0.361 total
time=
      0.1s
[CV 2/5; 146/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=168
[CV 2/5; 145/400] END bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=30;, score=0.398 total
time= 0.1s
[CV 3/5; 146/400] START bootstrap=True, max depth=20, max features=sqrt,
min samples leaf=3, min samples split=9, n estimators=168
[CV 4/5; 145/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min samples leaf=2, min samples split=4, n estimators=30;, score=0.394 total
time=
      0.1s
[CV 4/5; 146/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=168
[CV 1/5; 144/400] END bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=134;, score=0.407 total
time=
      0.7s
[CV 5/5; 146/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=168
[CV 5/5; 145/400] END bootstrap=False, max depth=5, max features=sqrt,
min samples leaf=2, min samples split=4, n estimators=30;, score=0.393 total
time= 0.1s
[CV 1/5; 147/400] START bootstrap=True, max depth=17, max features=None,
min samples leaf=1, min samples split=9, n estimators=56
[CV 2/5; 144/400] END bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=134;, score=0.380 total
time=
      0.7s
[CV 2/5; 147/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=56
[CV 3/5; 144/400] END bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=134;, score=0.377 total
time= 0.7s
[CV 3/5; 147/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=56
[CV 4/5; 144/400] END bootstrap=False, max depth=7, max features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=134;, score=0.376 total
time= 0.7s
[CV 4/5; 147/400] START bootstrap=True, max depth=17, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=56
[CV 5/5; 144/400] END bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=134;, score=0.382 total
      0.8s
time=
[CV 5/5; 147/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=56
[CV 1/5; 146/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=168;, score=0.444 total
time=
      1.1s
```

[CV 2/5; 146/400] END bootstrap=True, max\_depth=20, max\_features=sqrt,

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min_samples_leaf=3, min_samples_split=9, n_estimators=168;, score=0.406 total
time=
      1.1s
[CV 1/5; 148/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=132
[CV 2/5; 148/400] START bootstrap=True, max depth=20, max features=sqrt,
min samples leaf=1, min samples split=6, n estimators=132
[CV 4/5; 146/400] END bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=168;, score=0.391 total
time=
      1.1s
[CV 3/5; 148/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=132
[CV 2/5; 147/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=1, min samples split=9, n estimators=56;, score=0.396 total
time=
      1.0s
[CV 4/5; 148/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=132
[CV 5/5; 146/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=168;, score=0.435 total
time=
      1.1s
[CV 5/5; 148/400] START bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=132
[CV 3/5; 146/400] END bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=168;, score=0.403 total
time=
      1.2s
[CV 1/5; 149/400] START bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=146
[CV 1/5; 147/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=1, min samples split=9, n estimators=56;, score=0.428 total
[CV 2/5; 149/400] START bootstrap=False, max depth=15, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=146
[CV 4/5; 147/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=1, min samples split=9, n estimators=56;, score=0.395 total
time=
      1.1s
[CV 3/5; 149/400] START bootstrap=False, max depth=15, max features=None,
min samples leaf=1, min samples split=8, n estimators=146
[CV 3/5; 147/400] END bootstrap=True, max depth=17, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=56;, score=0.433 total
time= 1.1s
[CV 4/5; 149/400] START bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=146
[CV 5/5; 147/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=56;, score=0.457 total
time=
      1.1s
[CV 5/5; 149/400] START bootstrap=False, max depth=15, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=146
[CV 1/5; 148/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=132;, score=0.424 total
```

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time=
        0.9s
[CV 1/5; 150/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=140
[CV 2/5; 148/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=132;, score=0.384 total
time=
       0.9s
[CV 2/5; 150/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=140
[CV 3/5; 148/400] END bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=132;, score=0.396 total
time= 0.9s
[CV 3/5; 150/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=140
[CV 4/5; 148/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=132;, score=0.383 total
time= 0.9s
[CV 4/5; 150/400] START bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=140
[CV 5/5; 148/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=132;, score=0.419 total
time= 0.9s
[CV 5/5; 150/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=140
[CV 2/5; 150/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=140;, score=0.413 total
time=
       1.0s
[CV 1/5; 151/400] START bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=8
[CV 1/5; 150/400] END bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=140;, score=0.414 total
time=
      1.1s
[CV 2/5; 151/400] START bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=8
[CV 1/5; 151/400] END bootstrap=False, max_depth=6, max_features=sqrt,
min samples leaf=1, min samples split=7, n estimators=8;, score=0.406 total
time= 0.0s
[CV 3/5; 151/400] START bootstrap=False, max depth=6, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=8
[CV 2/5; 151/400] END bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=8;, score=0.401 total
time= 0.0s
[CV 3/5; 150/400] END bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=140;, score=0.357 total
time=
      1.1s
[CV 4/5; 151/400] START bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=8
[CV 5/5; 151/400] START bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=8
```

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[CV 3/5; 151/400] END bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=8;, score=0.358 total
time=
      0.0s
[CV 4/5; 150/400] END bootstrap=True, max_depth=5, max_features=None,
min samples leaf=2, min samples split=5, n estimators=140;, score=0.376 total
time=
       1.1s
[CV 1/5; 152/400] START bootstrap=False, max depth=5, max features=None,
min samples leaf=3, min samples split=7, n estimators=106
[CV 2/5; 152/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=106
[CV 4/5; 151/400] END bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=8;, score=0.384 total
time=
      0.0s
[CV 3/5; 152/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=106
[CV 5/5; 151/400] END bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=8;, score=0.367 total
time= 0.0s
[CV 5/5; 150/400] END bootstrap=True, max_depth=5, max_features=None,
min samples leaf=2, min samples split=5, n estimators=140;, score=0.385 total
time= 1.0s
[CV 4/5; 152/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=106
[CV 5/5; 152/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=106
[CV 1/5; 152/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=106;, score=0.407 total
time=
      1.2s
[CV 1/5; 153/400] START bootstrap=False, max depth=9, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=68
[CV 2/5; 152/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=106;, score=0.379 total
time=
      1.3s
[CV 4/5; 152/400] END bootstrap=False, max_depth=5, max_features=None,
min samples leaf=3, min samples split=7, n estimators=106;, score=0.381 total
time= 1.3s
[CV 2/5; 153/400] START bootstrap=False, max depth=9, max features=sqrt,
min samples leaf=3, min samples split=6, n estimators=68
[CV 5/5; 152/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=106;, score=0.386 total
time=
      1.3s
[CV 3/5; 153/400] START bootstrap=False, max_depth=9, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=68
[CV 4/5; 153/400] START bootstrap=False, max_depth=9, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=68
[CV 3/5; 152/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=106;, score=0.348 total
time=
      1.3s
```

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[CV 5/5; 153/400] START bootstrap=False, max_depth=9, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=68
[CV 2/5; 153/400] END bootstrap=False, max_depth=9, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=68;, score=0.395 total
time= 0.4s
[CV 1/5; 154/400] START bootstrap=False, max depth=12, max features=None,
min samples leaf=1, min samples split=3, n estimators=28
[CV 1/5; 153/400] END bootstrap=False, max_depth=9, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=68;, score=0.421 total
time=
      0.5s
[CV 2/5; 154/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=28
[CV 3/5; 153/400] END bootstrap=False, max_depth=9, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=68;, score=0.369 total
[CV 4/5; 153/400] END bootstrap=False, max_depth=9, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=68;, score=0.379 total
time= 0.4s
[CV 5/5; 153/400] END bootstrap=False, max_depth=9, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=68;, score=0.386 total
time= 0.4s
[CV 3/5; 154/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=28
[CV 4/5; 154/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=28
[CV 5/5; 154/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=28
[CV 1/5; 149/400] END bootstrap=False, max depth=15, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=146;, score=0.421 total
time=
      4.3s
[CV 1/5; 155/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=156
[CV 2/5; 154/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=28;, score=0.387 total
time= 0.7s
[CV 2/5; 149/400] END bootstrap=False, max depth=15, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=146;, score=0.394 total
time=
      4.3s
[CV 2/5; 155/400] START bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=156
[CV 1/5; 154/400] END bootstrap=False, max_depth=12, max_features=None,
min samples leaf=1, min samples split=3, n estimators=28;, score=0.418 total
      0.7s
[CV 3/5; 155/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=156
[CV 4/5; 155/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=156
[CV 3/5; 154/400] END bootstrap=False, max depth=12, max features=None,
```

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min samples leaf=1, min samples split=3, n estimators=28;, score=0.329 total
time=
      0.7s
[CV 5/5; 155/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=156
[CV 5/5; 154/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=28;, score=0.371 total
time= 0.7s
[CV 1/5; 156/400] START bootstrap=False, max_depth=17, max_features=sqrt,
min samples leaf=2, min samples split=3, n estimators=42
[CV 4/5; 154/400] END bootstrap=False, max_depth=12, max_features=None,
min samples leaf=1, min samples split=3, n estimators=28;, score=0.366 total
      0.8s
[CV 5/5; 149/400] END bootstrap=False, max depth=15, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=146;, score=0.389 total
[CV 2/5; 156/400] START bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=42
[CV 3/5; 156/400] START bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=42
[CV 3/5; 149/400] END bootstrap=False, max depth=15, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=146;, score=0.385 total
time= 4.4s
[CV 4/5; 156/400] START bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=42
[CV 4/5; 149/400] END bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=146;, score=0.374 total
time=
      4.6s
[CV 5/5; 156/400] START bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=42
[CV 1/5; 156/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min samples leaf=2, min samples split=3, n estimators=42;, score=0.420 total
time= 0.4s
[CV 1/5; 157/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=104
[CV 2/5; 156/400] END bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=42;, score=0.390 total
time= 0.4s
[CV 2/5; 157/400] START bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=104
[CV 3/5; 156/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=42;, score=0.381 total
      0.5s
time=
[CV 3/5; 157/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=104
[CV 4/5; 156/400] END bootstrap=False, max depth=17, max features=sqrt,
min samples leaf=2, min samples split=3, n estimators=42;, score=0.374 total
time=
      0.5s
[CV 4/5; 157/400] START bootstrap=True, max depth=5, max features=None,
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min_samples_leaf=2, min_samples_split=9, n_estimators=104
[CV 5/5; 156/400] END bootstrap=False, max depth=17, max features=sqrt,
min samples leaf=2, min samples split=3, n estimators=42;, score=0.409 total
time= 0.4s
[CV 5/5; 157/400] START bootstrap=True, max depth=5, max features=None,
min samples leaf=2, min samples split=9, n estimators=104
[CV 1/5; 157/400] END bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=104;, score=0.413 total
time=
      0.8s
[CV 1/5; 158/400] START bootstrap=False, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=186
[CV 1/5; 155/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=156;, score=0.412 total
time=
      1.4s
[CV 2/5; 158/400] START bootstrap=False, max depth=18, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=186
[CV 2/5; 155/400] END bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=156;, score=0.394 total
time=
      1.4s
[CV 3/5; 158/400] START bootstrap=False, max depth=18, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=186
[CV 2/5; 157/400] END bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=104;, score=0.398 total
time=
      0.9s
[CV 4/5; 158/400] START bootstrap=False, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=186
[CV 4/5; 155/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=156;, score=0.365 total
[CV 5/5; 158/400] START bootstrap=False, max depth=18, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=186
[CV 3/5; 157/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=104;, score=0.346 total
time=
      0.9s
[CV 1/5; 159/400] START bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=144
[CV 3/5; 155/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=156;, score=0.376 total
time= 1.5s
[CV 2/5; 159/400] START bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=144
[CV 5/5; 155/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=156;, score=0.393 total
time=
      1.5s
[CV 4/5; 157/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=104;, score=0.372 total
time=
      0.9s
```

[CV 5/5; 157/400] END bootstrap=True, max depth=5, max features=None,

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min_samples_leaf=2, min_samples_split=9, n_estimators=104;, score=0.390 total
time=
      0.8s
[CV 4/5; 159/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=144
[CV 3/5; 159/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=144
[CV 5/5; 159/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=144
[CV 2/5; 159/400] END bootstrap=True, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=144;, score=0.398 total
time= 1.6s
[CV 1/5; 160/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=38
[CV 5/5; 159/400] END bootstrap=True, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=144;, score=0.396 total
time=
      1.6s
[CV 1/5; 159/400] END bootstrap=True, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=144;, score=0.433 total
time=
      1.7s
[CV 2/5; 160/400] START bootstrap=True, max depth=14, max features=None,
min samples leaf=1, min samples split=5, n estimators=38
[CV 3/5; 160/400] START bootstrap=True, max depth=14, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=38
[CV 3/5; 159/400] END bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=144;, score=0.376 total
      1.6s
[CV 4/5; 159/400] END bootstrap=True, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=144;, score=0.383 total
[CV 4/5; 160/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=38
[CV 5/5; 160/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=38
[CV 2/5; 158/400] END bootstrap=False, max_depth=18, max_features=sqrt,
min samples leaf=2, min samples split=4, n estimators=186;, score=0.402 total
time= 1.9s
[CV 1/5; 161/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=156
[CV 3/5; 158/400] END bootstrap=False, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=186;, score=0.377 total
time=
       2.0s
[CV 2/5; 161/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=156
[CV 4/5; 158/400] END bootstrap=False, max depth=18, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=186;, score=0.387 total
[CV 3/5; 161/400] START bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=156
```

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[CV 1/5; 158/400] END bootstrap=False, max depth=18, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=186;, score=0.424 total
time=
       2.1s
[CV 5/5; 158/400] END bootstrap=False, max_depth=18, max_features=sqrt,
min samples leaf=2, min samples split=4, n estimators=186;, score=0.401 total
time=
       2.0s
[CV 4/5; 161/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=156
[CV 5/5; 161/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=156
[CV 1/5; 160/400] END bootstrap=True, max_depth=14, max_features=None,
min samples leaf=1, min samples split=5, n estimators=38;, score=0.416 total
time=
      0.7s
[CV 1/5; 162/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=76
[CV 3/5; 160/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=38;, score=0.405 total
      0.7s
[CV 2/5; 162/400] START bootstrap=False, max_depth=18, max_features=None,
min samples leaf=2, min samples split=5, n estimators=76
[CV 2/5; 160/400] END bootstrap=True, max depth=14, max features=None,
min samples leaf=1, min samples split=5, n estimators=38;, score=0.390 total
time=
      0.7s
[CV 3/5; 162/400] START bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=76
[CV 5/5; 160/400] END bootstrap=True, max_depth=14, max_features=None,
min samples leaf=1, min samples split=5, n estimators=38;, score=0.419 total
time=
      0.7s
[CV 4/5; 162/400] START bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=76
[CV 4/5; 160/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=38;, score=0.396 total
time=
      0.7s
[CV 5/5; 162/400] START bootstrap=False, max_depth=18, max_features=None,
min samples leaf=2, min samples split=5, n estimators=76
[CV 1/5; 161/400] END bootstrap=True, max_depth=5, max_features=None,
min samples leaf=2, min samples split=2, n estimators=156;, score=0.413 total
time=
      1.2s
[CV 1/5; 163/400] START bootstrap=False, max_depth=16, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=18
[CV 3/5; 161/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=156;, score=0.354 total
[CV 5/5; 161/400] END bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=156;, score=0.391 total
[CV 2/5; 163/400] START bootstrap=False, max_depth=16, max_features=sqrt,
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min\_samples\_leaf=2, min\_samples\_split=2, n\_estimators=18

[CV 3/5; 163/400] START bootstrap=False, max depth=16, max features=sqrt, min\_samples\_leaf=2, min\_samples\_split=2, n\_estimators=18 [CV 2/5; 161/400] END bootstrap=True, max depth=5, max features=None, min\_samples\_leaf=2, min\_samples\_split=2, n\_estimators=156;, score=0.417 total time= 1.3s[CV 1/5; 163/400] END bootstrap=False, max depth=16, max features=sqrt, min samples leaf=2, min samples split=2, n estimators=18;, score=0.427 total time= 0.2s [CV 4/5; 163/400] START bootstrap=False, max depth=16, max features=sqrt, min\_samples\_leaf=2, min\_samples\_split=2, n\_estimators=18 [CV 5/5; 163/400] START bootstrap=False, max depth=16, max features=sqrt, min\_samples\_leaf=2, min\_samples\_split=2, n\_estimators=18 [CV 4/5; 161/400] END bootstrap=True, max depth=5, max features=None, min\_samples\_leaf=2, min\_samples\_split=2, n\_estimators=156;, score=0.374 total [CV 1/5; 164/400] START bootstrap=False, max depth=12, max features=None, min\_samples\_leaf=3, min\_samples\_split=3, n\_estimators=148 [CV 3/5; 163/400] END bootstrap=False, max depth=16, max features=sqrt, min\_samples\_leaf=2, min\_samples\_split=2, n\_estimators=18;, score=0.370 total time= 0.2s [CV 2/5; 163/400] END bootstrap=False, max depth=16, max features=sqrt, min samples leaf=2, min samples split=2, n estimators=18;, score=0.368 total 0.2s [CV 2/5; 164/400] START bootstrap=False, max\_depth=12, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=3, n\_estimators=148 [CV 3/5; 164/400] START bootstrap=False, max depth=12, max features=None, min\_samples\_leaf=3, min\_samples\_split=3, n\_estimators=148 [CV 5/5; 163/400] END bootstrap=False, max depth=16, max features=sqrt, min samples leaf=2, min samples split=2, n estimators=18;, score=0.394 total time= 0.2s [CV 4/5; 164/400] START bootstrap=False, max depth=12, max features=None, min\_samples\_leaf=3, min\_samples\_split=3, n\_estimators=148 [CV 4/5; 163/400] END bootstrap=False, max depth=16, max features=sqrt, min\_samples\_leaf=2, min\_samples\_split=2, n\_estimators=18;, score=0.399 total time= 0.2s[CV 5/5; 164/400] START bootstrap=False, max depth=12, max features=None, min samples leaf=3, min samples split=3, n estimators=148 [CV 2/5; 162/400] END bootstrap=False, max\_depth=18, max\_features=None, min\_samples\_leaf=2, min\_samples\_split=5, n\_estimators=76;, score=0.396 total time= 2.4s[CV 1/5; 165/400] START bootstrap=True, max\_depth=16, max\_features=None, min\_samples\_leaf=2, min\_samples\_split=8, n\_estimators=184 [CV 1/5; 162/400] END bootstrap=False, max depth=18, max features=None, min samples leaf=2, min samples split=5, n estimators=76;, score=0.422 total time= 2.5s [CV 2/5; 165/400] START bootstrap=True, max\_depth=16, max\_features=None, min\_samples\_leaf=2, min\_samples\_split=8, n\_estimators=184 [CV 4/5; 162/400] END bootstrap=False, max depth=18, max features=None,

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min samples leaf=2, min samples split=5, n estimators=76;, score=0.388 total
time=
      2.5s
[CV 5/5; 162/400] END bootstrap=False, max depth=18, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=76;, score=0.424 total
time=
      2.5s
[CV 3/5; 165/400] START bootstrap=True, max depth=16, max features=None,
min samples leaf=2, min samples split=8, n estimators=184
[CV 4/5; 165/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=184
[CV 3/5; 162/400] END bootstrap=False, max_depth=18, max_features=None,
min samples leaf=2, min samples split=5, n estimators=76;, score=0.390 total
time=
       2.6s
[CV 5/5; 165/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=184
[CV 1/5; 164/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=148;, score=0.424 total
time=
       3.7s
[CV 1/5; 166/400] START bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=34
[CV 2/5; 164/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=148;, score=0.380 total
time=
       3.6s
[CV 2/5; 166/400] START bootstrap=True, max_depth=13, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=34
[CV 4/5; 164/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=148;, score=0.369 total
time=
      3.7s
[CV 1/5; 166/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=34;, score=0.439 total
time= 0.2s
[CV 3/5; 166/400] START bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=34
[CV 5/5; 164/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=148;, score=0.389 total
time=
      3.7s
[CV 4/5; 166/400] START bootstrap=True, max depth=13, max features=sqrt,
min samples leaf=3, min samples split=6, n estimators=34
[CV 3/5; 164/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=148;, score=0.336 total
      3.8s
[CV 2/5; 166/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=34;, score=0.391 total
[CV 5/5; 166/400] START bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=34
[CV 1/5; 167/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=134
[CV 2/5; 167/400] START bootstrap=True, max_depth=16, max_features=None,
```

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min_samples_leaf=1, min_samples_split=3, n_estimators=134
[CV 3/5; 166/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=34;, score=0.388 total
time= 0.2s
[CV 3/5; 167/400] START bootstrap=True, max depth=16, max features=None,
min samples leaf=1, min samples split=3, n estimators=134
[CV 5/5; 166/400] END bootstrap=True, max depth=13, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=34;, score=0.415 total
time=
      0.2s
[CV 4/5; 167/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=134
[CV 4/5; 166/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=34;, score=0.392 total
time=
       0.2s
[CV 5/5; 167/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=134
[CV 1/5; 165/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=184;, score=0.439 total
time=
      3.3s
[CV 1/5; 168/400] START bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=130
[CV 2/5; 165/400] END bootstrap=True, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=184;, score=0.388 total
time=
       3.4s
[CV 2/5; 168/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=130
[CV 3/5; 165/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=184;, score=0.416 total
[CV 3/5; 168/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=130
[CV 4/5; 165/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=184;, score=0.394 total
time=
      3.4s
[CV 4/5; 168/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=130
[CV 5/5; 165/400] END bootstrap=True, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=184;, score=0.430 total
time= 3.4s
[CV 5/5; 168/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=130
[CV 1/5; 168/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=130;, score=0.444 total
time=
      0.8s
[CV 1/5; 169/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168
[CV 2/5; 168/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=130;, score=0.395 total
```

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0.8s
time=
[CV 2/5; 169/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168
[CV 4/5; 168/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min samples leaf=3, min samples split=5, n estimators=130;, score=0.406 total
time=
       0.8s
[CV 3/5; 169/400] START bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168
[CV 3/5; 168/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=130;, score=0.405 total
time= 0.8s
[CV 4/5; 169/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168
[CV 5/5; 168/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=130;, score=0.423 total
time=
      0.8s
[CV 5/5; 169/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168
[CV 1/5; 167/400] END bootstrap=True, max_depth=16, max_features=None,
min samples leaf=1, min samples split=3, n estimators=134;, score=0.443 total
time=
       2.5s
[CV 1/5; 170/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=172
[CV 2/5; 167/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=134;, score=0.392 total
time=
       2.6s
[CV 2/5; 170/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=172
[CV 5/5; 167/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=134;, score=0.434 total
time=
       2.5s
[CV 3/5; 170/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=172
[CV 4/5; 167/400] END bootstrap=True, max_depth=16, max_features=None,
min samples leaf=1, min samples split=3, n estimators=134;, score=0.395 total
time=
       2.5s
[CV 4/5; 170/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=172
[CV 3/5; 167/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=134;, score=0.413 total
time=
       2.5s
[CV 5/5; 170/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=172
[CV 1/5; 169/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168;, score=0.431 total
[CV 1/5; 171/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=76
```

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[CV 2/5; 169/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168;, score=0.398 total
time=
      1.1s
[CV 2/5; 171/400] START bootstrap=False, max_depth=16, max_features=None,
min samples leaf=1, min samples split=3, n estimators=76
[CV 3/5; 169/400] END bootstrap=True, max depth=20, max features=sqrt,
min samples leaf=2, min samples split=8, n estimators=168;, score=0.414 total
time= 1.2s
[CV 3/5; 171/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=76
[CV 4/5; 169/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168;, score=0.398 total
time=
      1.2s
[CV 4/5; 171/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=76
[CV 5/5; 169/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168;, score=0.438 total
time= 1.1s
[CV 5/5; 171/400] START bootstrap=False, max_depth=16, max_features=None,
min samples leaf=1, min samples split=3, n estimators=76
[CV 2/5; 170/400] END bootstrap=False, max depth=5, max features=None,
min samples leaf=2, min samples split=4, n estimators=172;, score=0.379 total
time=
      2.1s
[CV 1/5; 172/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=6
[CV 1/5; 170/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=172;, score=0.407 total
time=
       2.1s
[CV 2/5; 172/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=6
[CV 5/5; 170/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=172;, score=0.386 total
time=
      2.0s
[CV 3/5; 172/400] START bootstrap=False, max_depth=12, max_features=None,
min samples leaf=2, min samples split=4, n estimators=6
[CV 1/5; 172/400] END bootstrap=False, max depth=12, max features=None,
min samples leaf=2, min samples split=4, n estimators=6;, score=0.420 total
time=
      0.2s
[CV 4/5; 172/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=6
[CV 2/5; 172/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=6;, score=0.372 total
      0.1s
[CV 5/5; 172/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=6
[CV 3/5; 170/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=172;, score=0.348 total
time=
       2.1s
```

[CV 1/5; 173/400] START bootstrap=True, max\_depth=20, max\_features=sqrt, min\_samples\_leaf=3, min\_samples\_split=6, n\_estimators=84 [CV 4/5; 170/400] END bootstrap=False, max\_depth=5, max\_features=None, min\_samples\_leaf=2, min\_samples\_split=4, n\_estimators=172;, score=0.381 total time= 2.1s[CV 2/5; 173/400] START bootstrap=True, max depth=20, max features=sqrt, min samples leaf=3, min samples split=6, n estimators=84 [CV 4/5; 172/400] END bootstrap=False, max\_depth=12, max\_features=None, min samples leaf=2, min samples split=4, n estimators=6;, score=0.368 total time= 0.1s[CV 5/5; 172/400] END bootstrap=False, max depth=12, max features=None, min\_samples\_leaf=2, min\_samples\_split=4, n\_estimators=6;, score=0.385 total time= 0.1s [CV 3/5; 173/400] START bootstrap=True, max depth=20, max features=sqrt, min\_samples\_leaf=3, min\_samples\_split=6, n\_estimators=84 [CV 4/5; 173/400] START bootstrap=True, max\_depth=20, max\_features=sqrt, min\_samples\_leaf=3, min\_samples\_split=6, n\_estimators=84 [CV 3/5; 172/400] END bootstrap=False, max depth=12, max features=None, min\_samples\_leaf=2, min\_samples\_split=4, n\_estimators=6;, score=0.339 total time= 0.2s [CV 5/5; 173/400] START bootstrap=True, max depth=20, max features=sqrt, min samples leaf=3, min samples split=6, n estimators=84 [CV 2/5; 171/400] END bootstrap=False, max\_depth=16, max\_features=None, min\_samples\_leaf=1, min\_samples\_split=3, n\_estimators=76;, score=0.396 total time= 2.3s [CV 1/5; 174/400] START bootstrap=True, max\_depth=None, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=6, n\_estimators=86 [CV 1/5; 171/400] END bootstrap=False, max depth=16, max features=None, min samples leaf=1, min samples split=3, n estimators=76;, score=0.406 total time= 2.4s[CV 2/5; 174/400] START bootstrap=True, max\_depth=None, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=6, n\_estimators=86 [CV 2/5; 173/400] END bootstrap=True, max\_depth=20, max\_features=sqrt, min\_samples\_leaf=3, min\_samples\_split=6, n\_estimators=84;, score=0.380 total time= 0.5s[CV 3/5; 174/400] START bootstrap=True, max depth=None, max features=None, min samples leaf=3, min samples split=6, n estimators=86 [CV 1/5; 173/400] END bootstrap=True, max\_depth=20, max\_features=sqrt, min\_samples\_leaf=3, min\_samples\_split=6, n\_estimators=84;, score=0.427 total time= 0.6s [CV 4/5; 174/400] START bootstrap=True, max\_depth=None, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=6, n\_estimators=86 [CV 4/5; 173/400] END bootstrap=True, max\_depth=20, max\_features=sqrt, min samples leaf=3, min samples split=6, n estimators=84;, score=0.391 total time= 0.6s [CV 5/5; 174/400] START bootstrap=True, max depth=None, max features=None, min\_samples\_leaf=3, min\_samples\_split=6, n\_estimators=86 [CV 5/5; 173/400] END bootstrap=True, max\_depth=20, max\_features=sqrt,

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min samples leaf=3, min samples split=6, n estimators=84;, score=0.422 total
time=
      0.6s
[CV 1/5; 175/400] START bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=144[CV 3/5; 171/400] END
bootstrap=False, max depth=16, max features=None, min samples leaf=1,
min samples split=3, n estimators=76;, score=0.383 total time=
[CV 2/5; 175/400] START bootstrap=False, max depth=7, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=144
[CV 3/5; 173/400] END bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=84;, score=0.409 total
time= 0.6s
[CV 3/5; 175/400] START bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=144
[CV 4/5; 171/400] END bootstrap=False, max depth=16, max features=None,
min samples leaf=1, min samples split=3, n estimators=76;, score=0.391 total
time=
       2.4s
[CV 4/5; 175/400] START bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=144
[CV 5/5; 171/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=76;, score=0.376 total
time=
       2.5s
[CV 5/5; 175/400] START bootstrap=False, max_depth=7, max_features=sqrt,
min samples leaf=1, min samples split=8, n estimators=144
[CV 3/5; 175/400] END bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=144;, score=0.370 total
time=
      0.7s
[CV 1/5; 176/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=150
[CV 2/5; 175/400] END bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=144;, score=0.391 total
time= 0.8s
[CV 2/5; 176/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=150
[CV 4/5; 175/400] END bootstrap=False, max depth=7, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=144;, score=0.379 total
time= 0.8s
[CV 3/5; 176/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=150
[CV 1/5; 175/400] END bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=144;, score=0.414 total
      0.8s
time=
[CV 4/5; 176/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=150
[CV 5/5; 175/400] END bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=144;, score=0.397 total
time=
       0.8s
[CV 5/5; 176/400] START bootstrap=False, max_depth=5, max_features=None,
```

min\_samples\_leaf=2, min\_samples\_split=4, n\_estimators=150 [CV 2/5; 174/400] END bootstrap=True, max\_depth=None, max\_features=None, min samples leaf=3, min samples split=6, n estimators=86;, score=0.391 total 1.8s [CV 1/5; 177/400] START bootstrap=False, max depth=12, max features=sqrt, min samples leaf=2, min samples split=5, n estimators=24 [CV 1/5; 174/400] END bootstrap=True, max depth=None, max features=None, min\_samples\_leaf=3, min\_samples\_split=6, n\_estimators=86;, score=0.417 total time= 1.9s [CV 2/5; 177/400] START bootstrap=False, max\_depth=12, max\_features=sqrt, min\_samples\_leaf=2, min\_samples\_split=5, n\_estimators=24 [CV 4/5; 174/400] END bootstrap=True, max\_depth=None, max\_features=None, min samples leaf=3, min samples split=6, n estimators=86;, score=0.374 total time= 1.8s [CV 3/5; 177/400] START bootstrap=False, max\_depth=12, max\_features=sqrt, min\_samples\_leaf=2, min\_samples\_split=5, n\_estimators=24 [CV 5/5; 174/400] END bootstrap=True, max\_depth=None, max\_features=None, min samples leaf=3, min samples split=6, n estimators=86;, score=0.440 total time= 1.7s [CV 4/5; 177/400] START bootstrap=False, max depth=12, max features=sqrt, min\_samples\_leaf=2, min\_samples\_split=5, n\_estimators=24 [CV 1/5; 177/400] END bootstrap=False, max depth=12, max features=sqrt, min\_samples\_leaf=2, min\_samples\_split=5, n\_estimators=24;, score=0.421 total time= 0.2s [CV 3/5; 174/400] END bootstrap=True, max\_depth=None, max\_features=None, min samples leaf=3, min samples split=6, n estimators=86;, score=0.420 total time= 2.0s [CV 5/5; 177/400] START bootstrap=False, max depth=12, max features=sqrt, min\_samples\_leaf=2, min\_samples\_split=5, n\_estimators=24 [CV 1/5; 178/400] START bootstrap=True, max depth=5, max features=sqrt, min\_samples\_leaf=3, min\_samples\_split=5, n\_estimators=66 [CV 2/5; 177/400] END bootstrap=False, max\_depth=12, max\_features=sqrt, min samples leaf=2, min samples split=5, n estimators=24;, score=0.406 total time= 0.2s [CV 2/5; 178/400] START bootstrap=True, max\_depth=5, max\_features=sqrt, min\_samples\_leaf=3, min\_samples\_split=5, n\_estimators=66 [CV 3/5; 177/400] END bootstrap=False, max depth=12, max features=sqrt, min\_samples\_leaf=2, min\_samples\_split=5, n\_estimators=24;, score=0.365 total time= 0.2s[CV 3/5; 178/400] START bootstrap=True, max\_depth=5, max\_features=sqrt, min\_samples\_leaf=3, min\_samples\_split=5, n\_estimators=66 [CV 4/5; 177/400] END bootstrap=False, max\_depth=12, max\_features=sqrt, min samples leaf=2, min samples split=5, n estimators=24;, score=0.379 total time= 0.2s[CV 4/5; 178/400] START bootstrap=True, max depth=5, max features=sqrt, min\_samples\_leaf=3, min\_samples\_split=5, n\_estimators=66 [CV 1/5; 178/400] END bootstrap=True, max\_depth=5, max\_features=sqrt,

min samples leaf=3, min samples split=5, n estimators=66;, score=0.416 total

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time=
        0.2s
[CV 5/5; 178/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=66
[CV 5/5; 177/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min samples leaf=2, min samples split=5, n estimators=24;, score=0.404 total
time=
       0.2s
[CV 1/5; 179/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=18
[CV 2/5; 178/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=66;, score=0.407 total
time= 0.2s
[CV 2/5; 179/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=18
[CV 3/5; 178/400] END bootstrap=True, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=66;, score=0.366 total
time=
      0.2s
[CV 4/5; 178/400] END bootstrap=True, max depth=5, max features=sqrt,
min samples leaf=3, min samples split=5, n estimators=66;, score=0.383 total
time= 0.2s
[CV 3/5; 179/400] START bootstrap=False, max depth=18, max features=None,
min samples leaf=1, min samples split=4, n estimators=18
[CV 4/5; 179/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=18
[CV 5/5; 178/400] END bootstrap=True, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=66;, score=0.390 total
time=
      0.2s
[CV 5/5; 179/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=18
[CV 1/5; 179/400] END bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=18;, score=0.414 total
time=
      0.6s
[CV 1/5; 180/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=130
[CV 2/5; 176/400] END bootstrap=False, max_depth=5, max_features=None,
min samples leaf=2, min samples split=4, n estimators=150;, score=0.379 total
time= 1.8s
[CV 2/5; 180/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=130
[CV 2/5; 179/400] END bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=18;, score=0.402 total
time=
      0.6s
[CV 1/5; 176/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=150;, score=0.407 total
time=
      1.8s
[CV 3/5; 180/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=130
[CV 4/5; 180/400] START bootstrap=True, max_depth=6, max_features=None,
```

min\_samples\_leaf=2, min\_samples\_split=9, n\_estimators=130

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[CV 3/5; 176/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=150;, score=0.348 total
time=
      1.8s
[CV 4/5; 176/400] END bootstrap=False, max_depth=5, max_features=None,
min samples leaf=2, min samples split=4, n estimators=150;, score=0.381 total
time=
[CV 5/5; 180/400] START bootstrap=True, max depth=6, max features=None,
min samples leaf=2, min samples split=9, n estimators=130
[CV 1/5; 181/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=12
[CV 5/5; 176/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=150;, score=0.386 total
time=
      1.8s
[CV 1/5; 181/400] END bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=12;, score=0.405 total
time= 0.1s
[CV 2/5; 181/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=12
[CV 4/5; 179/400] END bootstrap=False, max_depth=18, max_features=None,
min samples leaf=1, min samples split=4, n estimators=18;, score=0.390 total
time= 0.6s
[CV 3/5; 181/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=12
[CV 3/5; 179/400] END bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=18;, score=0.381 total
time=
      0.7s
[CV 4/5; 181/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=12
[CV 5/5; 179/400] END bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=18;, score=0.409 total
time=
      0.6s
[CV 5/5; 181/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=12
[CV 1/5; 182/400] START bootstrap=True, max_depth=6, max_features=None,
min samples leaf=3, min samples split=6, n estimators=96
[CV 3/5; 181/400] END bootstrap=False, max depth=8, max features=sqrt,
min samples leaf=2, min samples split=2, n estimators=12;, score=0.364 total
time=
      0.1s
[CV 2/5; 182/400] START bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=96
[CV 2/5; 181/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=2, min samples split=2, n estimators=12;, score=0.380 total
      0.1s
[CV 3/5; 182/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=96
[CV 5/5; 181/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=12;, score=0.400 total
time=
       0.1s
```

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[CV 4/5; 181/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=12;, score=0.358 total
time=
      0.1s
[CV 4/5; 182/400] START bootstrap=True, max_depth=6, max_features=None,
min samples leaf=3, min samples split=6, n estimators=96
[CV 5/5; 182/400] START bootstrap=True, max depth=6, max features=None,
min samples leaf=3, min samples split=6, n estimators=96
[CV 1/5; 182/400] END bootstrap=True, max depth=6, max features=None,
min samples leaf=3, min samples split=6, n estimators=96;, score=0.409 total
time=
      0.8s
[CV 1/5; 183/400] START bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=96
[CV 3/5; 182/400] END bootstrap=True, max depth=6, max features=None,
min samples leaf=3, min samples split=6, n estimators=96;, score=0.368 total
       0.8s[CV 2/5; 182/400] END bootstrap=True, max_depth=6,
max_features=None, min_samples_leaf=3, min_samples_split=6, n_estimators=96;,
score=0.395 total time=
                          0.9s
[CV 2/5; 183/400] START bootstrap=True, max_depth=10, max_features=sqrt,
min samples leaf=3, min samples split=8, n estimators=96
[CV 3/5; 183/400] START bootstrap=True, max depth=10, max features=sqrt,
min samples leaf=3, min samples split=8, n estimators=96
[CV 4/5; 182/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=96;, score=0.369 total
time= 0.9s
[CV 4/5; 183/400] START bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=96
[CV 5/5; 182/400] END bootstrap=True, max depth=6, max features=None,
min samples leaf=3, min samples split=6, n estimators=96;, score=0.402 total
time=
      0.9s
[CV 5/5; 183/400] START bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=96
[CV 1/5; 180/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=130;, score=0.412 total
time=
      1.2s
[CV 1/5; 184/400] START bootstrap=False, max depth=11, max features=None,
min samples leaf=2, min samples split=3, n estimators=172
[CV 4/5; 180/400] END bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=130;, score=0.369 total
      1.2s
[CV 3/5; 180/400] END bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=130;, score=0.368 total
[CV 2/5; 184/400] START bootstrap=False, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=172
[CV 3/5; 184/400] START bootstrap=False, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=172
[CV 5/5; 180/400] END bootstrap=True, max_depth=6, max_features=None,
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min_samples_leaf=2, min_samples_split=9, n_estimators=130;, score=0.396 total
time=
      1.2s
[CV 4/5; 184/400] START bootstrap=False, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=172
[CV 2/5; 180/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=130;, score=0.392 total
time= 1.3s
[CV 5/5; 184/400] START bootstrap=False, max_depth=11, max_features=None,
min samples leaf=2, min samples split=3, n estimators=172
[CV 1/5; 183/400] END bootstrap=True, max_depth=10, max_features=sqrt,
min samples leaf=3, min samples split=8, n estimators=96;, score=0.432 total
       0.5s
[CV 1/5; 185/400] START bootstrap=False, max_depth=7, max_features=sqrt,
min samples leaf=2, min samples split=9, n estimators=168[CV 3/5; 183/400] END
bootstrap=True, max_depth=10, max_features=sqrt, min_samples_leaf=3,
min_samples_split=8, n_estimators=96;, score=0.394 total time=
[CV 2/5; 185/400] START bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=168
[CV 4/5; 183/400] END bootstrap=True, max depth=10, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=96;, score=0.410 total
time= 0.4s
[CV 5/5; 183/400] END bootstrap=True, max depth=10, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=96;, score=0.408 total
time= 0.4s
[CV 3/5; 185/400] START bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=168
[CV 4/5; 185/400] START bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=168
[CV 2/5; 183/400] END bootstrap=True, max_depth=10, max_features=sqrt,
min samples leaf=3, min samples split=8, n estimators=96;, score=0.394 total
time= 0.5s
[CV 5/5; 185/400] START bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=168
[CV 1/5; 185/400] END bootstrap=False, max depth=7, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=168;, score=0.409 total
time= 0.9s
[CV 1/5; 186/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=84
[CV 2/5; 185/400] END bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=168;, score=0.385 total
      0.9s
time=
[CV 2/5; 186/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=84
[CV 3/5; 185/400] END bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=168;, score=0.377 total
time=
      0.9s
[CV 3/5; 186/400] START bootstrap=False, max depth=12, max features=None,
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min_samples_leaf=3, min_samples_split=3, n_estimators=84
[CV 4/5; 185/400] END bootstrap=False, max_depth=7, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=168;, score=0.381 total
time= 0.9s
[CV 4/5; 186/400] START bootstrap=False, max depth=12, max features=None,
min samples leaf=3, min samples split=3, n estimators=84[CV 5/5; 185/400] END
bootstrap=False, max depth=7, max features=sqrt, min samples leaf=2,
min_samples_split=9, n_estimators=168;, score=0.389 total time=
[CV 5/5; 186/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=84
[CV 1/5; 186/400] END bootstrap=False, max depth=12, max features=None,
min samples leaf=3, min samples split=3, n estimators=84;, score=0.424 total
time=
        2.0s
[CV 1/5; 187/400] START bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=166
[CV 4/5; 186/400] END bootstrap=False, max_depth=12, max_features=None,
min samples leaf=3, min samples split=3, n estimators=84;, score=0.368 total
time=
      2.0s
[CV 2/5; 186/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=84;, score=0.380 total
       2.1s
time=
[CV 2/5; 187/400] START bootstrap=True, max_depth=11, max_features=sqrt,
min samples leaf=1, min samples split=5, n estimators=166
[CV 5/5; 186/400] END bootstrap=False, max_depth=12, max_features=None,
min samples leaf=3, min samples split=3, n estimators=84;, score=0.389 total
time=
      2.1s
[CV 3/5; 187/400] START bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=166
[CV 4/5; 187/400] START bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=166
[CV 3/5; 186/400] END bootstrap=False, max_depth=12, max_features=None,
min samples leaf=3, min samples split=3, n estimators=84;, score=0.336 total
time=
       2.2s
[CV 5/5; 187/400] START bootstrap=True, max_depth=11, max_features=sqrt,
min samples leaf=1, min samples split=5, n estimators=166
[CV 4/5; 184/400] END bootstrap=False, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=172;, score=0.366 total
time= 3.9s
[CV 1/5; 188/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=126
[CV 1/5; 184/400] END bootstrap=False, max_depth=11, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=172;, score=0.390 total
time=
       4.0s
[CV 2/5; 188/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=126
[CV 2/5; 184/400] END bootstrap=False, max_depth=11, max_features=None,
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min\_samples\_leaf=2, min\_samples\_split=3, n\_estimators=172;, score=0.374 total

```
4.0s
time=
[CV 3/5; 188/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=126
[CV 3/5; 184/400] END bootstrap=False, max_depth=11, max_features=None,
min samples leaf=2, min samples split=3, n estimators=172;, score=0.351 total
       4.1s
time=
[CV 4/5; 188/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=126
[CV 1/5; 187/400] END bootstrap=True, max depth=11, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=166;, score=0.433 total
time= 1.0s
[CV 5/5; 188/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=126
[CV 2/5; 187/400] END bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=166;, score=0.398 total
time=
      0.8s
[CV 5/5; 184/400] END bootstrap=False, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=172;, score=0.440 total
time= 4.1s
[CV 1/5; 189/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=150
[CV 2/5; 189/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=150
[CV 3/5; 187/400] END bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=166;, score=0.407 total
time=
       0.9s
[CV 3/5; 189/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=150
[CV 4/5; 187/400] END bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=166;, score=0.407 total
time=
      0.9s
[CV 4/5; 189/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=150
[CV 5/5; 187/400] END bootstrap=True, max_depth=11, max_features=sqrt,
min samples leaf=1, min samples split=5, n estimators=166;, score=0.407 total
time= 0.9s
[CV 5/5; 189/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=150
[CV 2/5; 189/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=150;, score=0.396 total
time=
      0.9s
[CV 1/5; 190/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=192
[CV 3/5; 189/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=150;, score=0.370 total
[CV 2/5; 190/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=192
```

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[CV 1/5; 189/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=150;, score=0.402 total
time=
      0.9s
[CV 4/5; 189/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=3, min samples split=7, n estimators=150;, score=0.377 total
time=
      0.9s
[CV 3/5; 190/400] START bootstrap=False, max depth=16, max features=None,
min samples leaf=1, min samples split=7, n estimators=192
[CV 5/5; 189/400] END bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=150;, score=0.396 total
time= 0.9s
[CV 4/5; 190/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=192
[CV 5/5; 190/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=192
[CV 1/5; 188/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=126;, score=0.447 total
time=
       2.2s
[CV 1/5; 191/400] START bootstrap=True, max_depth=5, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=148
[CV 2/5; 188/400] END bootstrap=True, max depth=14, max features=None,
min samples leaf=1, min samples split=9, n estimators=126;, score=0.402 total
      2.2s
[CV 3/5; 188/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=126;, score=0.409 total
time=
      2.2s
[CV 2/5; 191/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=148
[CV 3/5; 191/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=148
[CV 4/5; 188/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=126;, score=0.398 total
time=
      2.3s
[CV 4/5; 191/400] START bootstrap=True, max_depth=5, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=148
[CV 5/5; 188/400] END bootstrap=True, max_depth=14, max_features=None,
min samples leaf=1, min samples split=9, n estimators=126;, score=0.413 total
time=
       2.2s
[CV 5/5; 191/400] START bootstrap=True, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=148
[CV 1/5; 191/400] END bootstrap=True, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=148;, score=0.414 total
      0.4s
[CV 1/5; 192/400] START bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=66
[CV 3/5; 191/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=148;, score=0.365 total
```

time=

0.4s

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[CV 2/5; 192/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=66
[CV 2/5; 191/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=148;, score=0.417 total
time= 0.5s
[CV 3/5; 192/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=1, min samples split=7, n estimators=66
[CV 4/5; 191/400] END bootstrap=True, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=148;, score=0.385 total
time=
      0.4s
[CV 4/5; 192/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=66
[CV 5/5; 191/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=148;, score=0.383 total
       0.4s
[CV 5/5; 192/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=66
[CV 1/5; 192/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=66;, score=0.442 total
time=
      0.3s
[CV 1/5; 193/400] START bootstrap=True, max depth=16, max features=None,
min samples leaf=1, min samples split=8, n estimators=8
[CV 3/5; 192/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=66;, score=0.402 total
time= 0.3s
[CV 2/5; 192/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=1, min samples split=7, n estimators=66;, score=0.398 total
time=
      0.4s
[CV 2/5; 193/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=8
[CV 3/5; 193/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=8
[CV 1/5; 193/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=8;, score=0.412 total
time= 0.2s
[CV 4/5; 193/400] START bootstrap=True, max depth=16, max features=None,
min samples leaf=1, min samples split=8, n estimators=8
[CV 2/5; 193/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=8;, score=0.395 total
      0.1s
[CV 3/5; 193/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=8;, score=0.416 total
[CV 4/5; 192/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=66;, score=0.410 total
[CV 5/5; 193/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=8
```

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[CV 1/5; 194/400] START bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=58
[CV 5/5; 192/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=66;, score=0.423 total
time= 0.3s
[CV 2/5; 194/400] START bootstrap=False, max depth=7, max features=None,
min samples leaf=1, min samples split=3, n estimators=58
[CV 3/5; 194/400] START bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=58
[CV 4/5; 193/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=8;, score=0.420 total
time=
      0.1s
[CV 4/5; 194/400] START bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=58
[CV 5/5; 193/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=8;, score=0.409 total
time=
      0.2s
[CV 5/5; 194/400] START bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=58
[CV 1/5; 194/400] END bootstrap=False, max depth=7, max features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=58;, score=0.403 total
time= 0.9s
[CV 1/5; 195/400] START bootstrap=False, max_depth=15, max_features=None,
min samples leaf=3, min samples split=2, n estimators=66
[CV 2/5; 194/400] END bootstrap=False, max_depth=7, max_features=None,
min samples leaf=1, min samples split=3, n estimators=58;, score=0.392 total
time=
      1.0s
[CV 3/5; 194/400] END bootstrap=False, max_depth=7, max_features=None,
min samples leaf=1, min samples split=3, n estimators=58;, score=0.343 total
time=
      0.9s
[CV 2/5; 195/400] START bootstrap=False, max depth=15, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=66
[CV 3/5; 195/400] START bootstrap=False, max depth=15, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=66
[CV 4/5; 194/400] END bootstrap=False, max depth=7, max features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=58;, score=0.369 total
time= 0.9s
[CV 4/5; 195/400] START bootstrap=False, max depth=15, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=66
[CV 5/5; 194/400] END bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=58;, score=0.330 total
time=
      1.0s
[CV 5/5; 195/400] START bootstrap=False, max depth=15, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=66
[CV 1/5; 195/400] END bootstrap=False, max depth=15, max features=None,
min samples leaf=3, min samples split=2, n estimators=66;, score=0.420 total
time=
      1.9s
[CV 2/5; 195/400] END bootstrap=False, max depth=15, max features=None,
```

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min samples leaf=3, min samples split=2, n estimators=66;, score=0.392 total
time=
      1.9s
[CV 1/5; 196/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=42
[CV 2/5; 196/400] START bootstrap=False, max depth=16, max features=None,
min samples leaf=1, min samples split=6, n estimators=42
[CV 4/5; 195/400] END bootstrap=False, max depth=15, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=66;, score=0.383 total
time=
      1.9s
[CV 3/5; 196/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=42
[CV 5/5; 195/400] END bootstrap=False, max depth=15, max features=None,
min samples leaf=3, min samples split=2, n estimators=66;, score=0.412 total
time=
      1.9s
[CV 4/5; 196/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=42
[CV 3/5; 195/400] END bootstrap=False, max_depth=15, max_features=None,
min samples leaf=3, min samples split=2, n estimators=66;, score=0.392 total
time=
      2.1s
[CV 5/5; 196/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=42
[CV 2/5; 190/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=192;, score=0.402 total
time=
      5.7s
[CV 1/5; 197/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=86
[CV 1/5; 190/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=192;, score=0.412 total
[CV 2/5; 197/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=86
[CV 5/5; 190/400] END bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=192;, score=0.386 total
time=
      5.9s
[CV 3/5; 197/400] START bootstrap=False, max depth=12, max features=sqrt,
min samples leaf=1, min samples split=9, n estimators=86
[CV 4/5; 190/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=192;, score=0.385 total
time= 6.1s
[CV 4/5; 197/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=86
[CV 1/5; 196/400] END bootstrap=False, max depth=16, max features=None,
min samples leaf=1, min samples split=6, n estimators=42;, score=0.410 total
time=
      1.3s
[CV 5/5; 197/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=86
[CV 2/5; 196/400] END bootstrap=False, max_depth=16, max_features=None,
min samples leaf=1, min samples split=6, n estimators=42;, score=0.403 total
```

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time=
        1.3s
[CV 1/5; 198/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=90
[CV 3/5; 190/400] END bootstrap=False, max_depth=16, max_features=None,
min samples leaf=1, min samples split=7, n estimators=192;, score=0.380 total
time=
       6.3s
[CV 2/5; 198/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=90
[CV 3/5; 196/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=42;, score=0.380 total
time=
      1.3s
[CV 4/5; 196/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=42;, score=0.387 total
time=
      1.3s
[CV 1/5; 197/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=86;, score=0.418 total
time=
      0.7s
[CV 4/5; 198/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=90
[CV 3/5; 198/400] START bootstrap=False, max depth=5, max features=None,
min samples leaf=3, min samples split=9, n estimators=90
[CV 5/5; 198/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=90
[CV 5/5; 196/400] END bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=42;, score=0.385 total
time=
       1.3s
[CV 1/5; 199/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=138
[CV 2/5; 197/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=86;, score=0.399 total
time=
      0.7s
[CV 2/5; 199/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=138
[CV 3/5; 197/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min samples leaf=1, min samples split=9, n estimators=86;, score=0.358 total
time= 0.7s
[CV 3/5; 199/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=138
[CV 4/5; 197/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=86;, score=0.384 total
time=
      0.7s
[CV 4/5; 199/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=138
[CV 5/5; 197/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=86;, score=0.397 total
[CV 5/5; 199/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=138
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[CV 1/5; 198/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=90;, score=0.407 total
time=
      1.0s
[CV 1/5; 200/400] START bootstrap=False, max_depth=14, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=132
[CV 2/5; 198/400] END bootstrap=False, max depth=5, max features=None,
min samples leaf=3, min samples split=9, n estimators=90;, score=0.379 total
time=
      1.1s
[CV 2/5; 200/400] START bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=132
[CV 5/5; 198/400] END bootstrap=False, max_depth=5, max_features=None,
min samples leaf=3, min samples split=9, n estimators=90;, score=0.386 total
time=
      1.1s
[CV 3/5; 200/400] START bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=132
[CV 4/5; 198/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=90;, score=0.381 total
time= 1.2s
[CV 4/5; 200/400] START bootstrap=False, max_depth=14, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=132
[CV 3/5; 198/400] END bootstrap=False, max depth=5, max features=None,
min samples leaf=3, min samples split=9, n estimators=90;, score=0.348 total
      1.2s
[CV 5/5; 200/400] START bootstrap=False, max_depth=14, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=132
[CV 1/5; 200/400] END bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=132;, score=0.427 total
time=
      1.2s
[CV 1/5; 201/400] START bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=114
[CV 2/5; 200/400] END bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=132;, score=0.402 total
time= 1.1s
[CV 2/5; 201/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min samples leaf=2, min samples split=7, n estimators=114
[CV 5/5; 200/400] END bootstrap=False, max depth=14, max features=sqrt,
min samples leaf=3, min samples split=9, n estimators=132;, score=0.408 total
time=
      1.1s
[CV 3/5; 201/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=114
[CV 3/5; 200/400] END bootstrap=False, max_depth=14, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=132;, score=0.369 total
[CV 4/5; 201/400] START bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=114
[CV 4/5; 200/400] END bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=132;, score=0.391 total
time=
      1.1s
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[CV 5/5; 201/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=114
[CV 1/5; 201/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=114;, score=0.427 total
time= 0.7s
[CV 1/5; 202/400] START bootstrap=True, max depth=7, max features=sqrt,
min samples leaf=2, min samples split=2, n estimators=136
[CV 2/5; 201/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min samples leaf=2, min samples split=7, n estimators=114;, score=0.398 total
time=
      0.8s
[CV 2/5; 202/400] START bootstrap=True, max depth=7, max features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=136
[CV 5/5; 201/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=114;, score=0.423 total
       0.8s
[CV 3/5; 202/400] START bootstrap=True, max depth=7, max features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=136
[CV 3/5; 201/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=114;, score=0.402 total
time=
      0.8s
[CV 4/5; 202/400] START bootstrap=True, max depth=7, max features=sqrt,
min samples leaf=2, min samples split=2, n estimators=136
[CV 4/5; 201/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=114;, score=0.402 total
time= 0.8s
[CV 5/5; 202/400] START bootstrap=True, max depth=7, max features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=136
[CV 1/5; 202/400] END bootstrap=True, max depth=7, max features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=136;, score=0.433 total
time=
      0.5s
[CV 1/5; 203/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=104
[CV 2/5; 202/400] END bootstrap=True, max depth=7, max features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=136;, score=0.401 total
time= 0.5s
[CV 1/5; 199/400] END bootstrap=False, max depth=12, max features=None,
min samples leaf=3, min samples split=6, n estimators=138;, score=0.424 total
time=
       3.3s
[CV 2/5; 203/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=104
[CV 3/5; 203/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=104
[CV 2/5; 199/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=138;, score=0.380 total
time=
       3.4s
[CV 4/5; 203/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=104
[CV 4/5; 202/400] END bootstrap=True, max_depth=7, max_features=sqrt,
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min_samples_leaf=2, min_samples_split=2, n_estimators=136;, score=0.392 total
time=
      0.4s
[CV 5/5; 203/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=104
[CV 5/5; 202/400] END bootstrap=True, max depth=7, max features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=136;, score=0.391 total
time= 0.5s
[CV 3/5; 202/400] END bootstrap=True, max depth=7, max features=sqrt,
min samples leaf=2, min samples split=2, n estimators=136;, score=0.366 total
time=
      0.5s
[CV 2/5; 204/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=182
[CV 1/5; 204/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=182
[CV 4/5; 199/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=138;, score=0.368 total
time=
       3.4s
[CV 3/5; 204/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=182
[CV 3/5; 199/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=138;, score=0.336 total
time=
       3.6s
[CV 4/5; 204/400] START bootstrap=True, max depth=17, max features=None,
min samples leaf=2, min samples split=9, n estimators=182
[CV 1/5; 203/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=104;, score=0.410 total
time=
      0.6s
[CV 5/5; 204/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=182
[CV 5/5; 199/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=138;, score=0.389 total
[CV 1/5; 205/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=2
[CV 1/5; 205/400] END bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=2;, score=0.413 total
time= 0.1s
[CV 2/5; 205/400] START bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=2
[CV 3/5; 203/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=104;, score=0.370 total
      0.6s
time=
[CV 3/5; 205/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=2
[CV 2/5; 203/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=104;, score=0.396 total
time=
      0.7s
[CV 5/5; 203/400] END bootstrap=False, max_depth=8, max_features=sqrt,
```

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min_samples_leaf=1, min_samples_split=3, n_estimators=104;, score=0.386 total
time=
      0.6s
[CV 4/5; 205/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=2
[CV 2/5; 205/400] END bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=2;, score=0.396 total
time= 0.1s
[CV 5/5; 205/400] START bootstrap=False, max_depth=18, max_features=None,
min samples leaf=1, min samples split=9, n estimators=2
[CV 1/5; 206/400] START bootstrap=False, max_depth=None, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=136
[CV 3/5; 205/400] END bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=2;, score=0.384 total
time=
      0.1s
[CV 2/5; 206/400] START bootstrap=False, max depth=None, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=136
[CV 4/5; 203/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=104;, score=0.387 total
time=
      0.7s
[CV 3/5; 206/400] START bootstrap=False, max depth=None, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=136
[CV 4/5; 205/400] END bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=2;, score=0.395 total
time=
      0.1s
[CV 4/5; 206/400] START bootstrap=False, max_depth=None, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=136
[CV 5/5; 205/400] END bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=2;, score=0.397 total
[CV 5/5; 206/400] START bootstrap=False, max_depth=None, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=136
[CV 2/5; 206/400] END bootstrap=False, max_depth=None, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=136;, score=0.388 total
time=
      1.6s
[CV 1/5; 207/400] START bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=128
[CV 4/5; 206/400] END bootstrap=False, max depth=None, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=136;, score=0.370 total
time= 1.7s
[CV 5/5; 206/400] END bootstrap=False, max_depth=None, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=136;, score=0.413 total
time=
      1.7s
[CV 2/5; 207/400] START bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=128
[CV 1/5; 206/400] END bootstrap=False, max_depth=None, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=136;, score=0.399 total
time=
      1.7s
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[CV 3/5; 207/400] START bootstrap=True, max\_depth=6, max\_features=sqrt,

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min_samples_leaf=2, min_samples_split=9, n_estimators=128
[CV 4/5; 207/400] START bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=128
[CV 3/5; 206/400] END bootstrap=False, max_depth=None, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=136;, score=0.401 total
time=
       1.9s
[CV 5/5; 207/400] START bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=128
[CV 1/5; 207/400] END bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=128;, score=0.407 total
time= 0.4s
[CV 4/5; 207/400] END bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=128;, score=0.385 total
time=
       0.3s
[CV 1/5; 208/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=80
[CV 2/5; 208/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=80
[CV 2/5; 207/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min samples leaf=2, min samples split=9, n estimators=128;, score=0.398 total
time= 0.4s
[CV 3/5; 208/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=80
[CV 3/5; 207/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=128;, score=0.369 total
time=
      0.4s
[CV 4/5; 208/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=80
[CV 5/5; 207/400] END bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=128;, score=0.393 total
time=
      0.4s
[CV 5/5; 208/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=80
[CV 2/5; 204/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=2, min samples split=9, n estimators=182;, score=0.399 total
time= 3.5s
[CV 1/5; 209/400] START bootstrap=True, max depth=7, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=2
[CV 1/5; 209/400] END bootstrap=True, max_depth=7, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=2;, score=0.409 total
time=
      0.0s
[CV 2/5; 209/400] START bootstrap=True, max depth=7, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=2
[CV 2/5; 209/400] END bootstrap=True, max_depth=7, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=2;, score=0.362 total
[CV 3/5; 209/400] START bootstrap=True, max_depth=7, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=2
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[CV 3/5; 209/400] END bootstrap=True, max depth=7, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=2;, score=0.407 total
time=
      0.0s
[CV 4/5; 209/400] START bootstrap=True, max_depth=7, max_features=sqrt,
min samples leaf=2, min samples split=9, n estimators=2
[CV 4/5; 209/400] END bootstrap=True, max_depth=7, max_features=sqrt,
min samples leaf=2, min samples split=9, n estimators=2;, score=0.376 total
time= 0.0s
[CV 5/5; 209/400] START bootstrap=True, max depth=7, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=2
[CV 5/5; 209/400] END bootstrap=True, max_depth=7, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=2;, score=0.419 total
time=
      0.0s
[CV 1/5; 210/400] START bootstrap=True, max depth=14, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=96
[CV 3/5; 204/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=182;, score=0.417 total
time= 3.4s
[CV 2/5; 210/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min samples leaf=1, min samples split=5, n estimators=96
[CV 1/5; 204/400] END bootstrap=True, max depth=17, max features=None,
min samples leaf=2, min samples split=9, n estimators=182;, score=0.418 total
time=
      3.7s
[CV 3/5; 210/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=96
[CV 5/5; 204/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=182;, score=0.438 total
time=
       3.4s
[CV 4/5; 210/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=96
[CV 4/5; 204/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=182;, score=0.394 total
time=
      3.5s
[CV 5/5; 210/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min samples leaf=1, min samples split=5, n estimators=96
[CV 1/5; 210/400] END bootstrap=True, max depth=14, max features=sqrt,
min samples leaf=1, min samples split=5, n estimators=96;, score=0.446 total
time=
      0.5s
[CV 1/5; 211/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=56
[CV 3/5; 208/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=3, min samples split=5, n estimators=80;, score=0.347 total
[CV 2/5; 210/400] END bootstrap=True, max depth=14, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=96;, score=0.396 total
[CV 2/5; 211/400] START bootstrap=True, max_depth=20, max_features=None,
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min\_samples\_leaf=3, min\_samples\_split=2, n\_estimators=56

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[CV 1/5; 208/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=80;, score=0.413 total
time=
      1.5s
[CV 4/5; 208/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=3, min samples split=5, n estimators=80;, score=0.350 total
time=
       1.4s
[CV 3/5; 211/400] START bootstrap=True, max depth=20, max features=None,
min samples leaf=3, min samples split=2, n estimators=56
[CV 4/5; 211/400] START bootstrap=True, max depth=20, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=56
[CV 2/5; 208/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=3, min samples split=5, n estimators=80;, score=0.380 total
time=
      1.5s
[CV 5/5; 211/400] START bootstrap=True, max depth=20, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=56
[CV 1/5; 212/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=62
[CV 5/5; 208/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=80;, score=0.385 total
time=
      1.4s
[CV 2/5; 212/400] START bootstrap=True, max depth=12, max features=sqrt,
min samples leaf=2, min samples split=6, n estimators=62
[CV 3/5; 210/400] END bootstrap=True, max depth=14, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=96;, score=0.395 total
time= 0.6s
[CV 3/5; 212/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=62
[CV 4/5; 210/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min samples leaf=1, min samples split=5, n estimators=96;, score=0.392 total
time=
      0.6s
[CV 5/5; 210/400] END bootstrap=True, max depth=14, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=96;, score=0.426 total
time=
      0.5s
[CV 5/5; 212/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=2, min samples split=6, n estimators=62
[CV 4/5; 212/400] START bootstrap=True, max depth=12, max features=sqrt,
min samples leaf=2, min samples split=6, n estimators=62
[CV 1/5; 212/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=62;, score=0.416 total
time= 0.3s
[CV 3/5; 212/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=2, min samples split=6, n estimators=62;, score=0.410 total
time= 0.3s
[CV 1/5; 213/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=110
[CV 2/5; 212/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=62;, score=0.396 total
time=
      0.3s
```

```
[CV 2/5; 213/400] START bootstrap=True, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=110
[CV 3/5; 213/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=110
[CV 4/5; 212/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=62;, score=0.398 total
time= 0.3s
[CV 5/5; 212/400] END bootstrap=True, max depth=12, max features=sqrt,
min samples leaf=2, min samples split=6, n estimators=62;, score=0.405 total
time=
      0.3s
[CV 4/5; 213/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=110
[CV 5/5; 213/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=110
[CV 2/5; 213/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=110;, score=0.421 total
time=
      0.3s
[CV 1/5; 213/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=110;, score=0.412 total
time=
      0.3s
[CV 1/5; 214/400] START bootstrap=False, max depth=8, max features=None,
min samples leaf=2, min samples split=8, n estimators=132
[CV 3/5; 213/400] END bootstrap=True, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=110;, score=0.362 total
time= 0.3s
[CV 2/5; 214/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=132
[CV 3/5; 214/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=132
[CV 4/5; 213/400] END bootstrap=True, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=110;, score=0.387 total
[CV 5/5; 213/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=110;, score=0.383 total
time= 0.3s
[CV 4/5; 214/400] START bootstrap=False, max depth=8, max features=None,
min samples leaf=2, min samples split=8, n estimators=132
[CV 5/5; 214/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=132
[CV 2/5; 211/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=56;, score=0.394 total
      1.1s
time=
[CV 1/5; 215/400] START bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=10
[CV 1/5; 211/400] END bootstrap=True, max_depth=20, max_features=None,
min samples leaf=3, min samples split=2, n estimators=56;, score=0.417 total
time=
      1.2s
[CV 2/5; 215/400] START bootstrap=True, max_depth=10, max_features=sqrt,
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min_samples_leaf=3, min_samples_split=4, n_estimators=10
[CV 1/5; 215/400] END bootstrap=True, max_depth=10, max_features=sqrt,
min samples leaf=3, min samples split=4, n estimators=10;, score=0.425 total
time= 0.1s
[CV 3/5; 215/400] START bootstrap=True, max depth=10, max features=sqrt,
min samples leaf=3, min samples split=4, n estimators=10
[CV 3/5; 211/400] END bootstrap=True, max depth=20, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=56;, score=0.405 total
time=
      1.2s
[CV 5/5; 211/400] END bootstrap=True, max_depth=20, max_features=None,
min samples leaf=3, min samples split=2, n estimators=56;, score=0.446 total
[CV 2/5; 215/400] END bootstrap=True, max_depth=10, max_features=sqrt,
min samples leaf=3, min samples split=4, n estimators=10;, score=0.366 total
[CV 4/5; 215/400] START bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=10
[CV 5/5; 215/400] START bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=10
[CV 4/5; 211/400] END bootstrap=True, max depth=20, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=56;, score=0.387 total
time= 1.2s
[CV 3/5; 215/400] END bootstrap=True, max depth=10, max features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=10;, score=0.392 total
time= 0.0s
[CV 1/5; 216/400] START bootstrap=False, max_depth=9, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108
[CV 2/5; 216/400] START bootstrap=False, max_depth=9, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108
[CV 3/5; 216/400] START bootstrap=False, max_depth=9, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108
[CV 4/5; 215/400] END bootstrap=True, max_depth=10, max_features=sqrt,
min samples leaf=3, min samples split=4, n estimators=10;, score=0.394 total
time=
      0.0s
[CV 5/5; 215/400] END bootstrap=True, max depth=10, max features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=10;, score=0.419 total
time= 0.0s
[CV 4/5; 216/400] START bootstrap=False, max_depth=9, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108
[CV 5/5; 216/400] START bootstrap=False, max_depth=9, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108
[CV 1/5; 214/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=132;, score=0.416 total
time=
       2.3s
[CV 1/5; 217/400] START bootstrap=True, max_depth=13, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=58
[CV 2/5; 214/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=132;, score=0.373 total
```

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[CV 2/5; 217/400] START bootstrap=True, max_depth=13, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=58
[CV 5/5; 214/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=2, min samples split=8, n estimators=132;, score=0.380 total
        2.3s
time=
[CV 3/5; 217/400] START bootstrap=True, max depth=13, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=58
[CV 3/5; 214/400] END bootstrap=False, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=132;, score=0.348 total
time=
       2.5s
[CV 4/5; 217/400] START bootstrap=True, max_depth=13, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=58
[CV 1/5; 216/400] END bootstrap=False, max_depth=9, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108;, score=0.399 total
time=
      2.0s
[CV 4/5; 214/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=132;, score=0.353 total
time=
      2.4s
[CV 5/5; 217/400] START bootstrap=True, max depth=13, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=58
[CV 1/5; 218/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=6
[CV 2/5; 216/400] END bootstrap=False, max_depth=9, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108;, score=0.379 total
time=
       2.1s
[CV 2/5; 218/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=6
[CV 5/5; 216/400] END bootstrap=False, max_depth=9, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108;, score=0.380 total
time=
       2.1s
[CV 3/5; 218/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=6
[CV 1/5; 218/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min samples leaf=2, min samples split=5, n estimators=6;, score=0.420 total
time= 0.1s
[CV 4/5; 218/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=6
[CV 2/5; 218/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=6;, score=0.394 total
time=
      0.1s
[CV 5/5; 218/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=6
[CV 4/5; 216/400] END bootstrap=False, max_depth=9, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=108;, score=0.346 total
[CV 1/5; 219/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8
```

time=

2.4s

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[CV 4/5; 218/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=6;, score=0.362 total
time=
      0.1s
[CV 2/5; 219/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min samples leaf=1, min samples split=3, n estimators=8
[CV 3/5; 216/400] END bootstrap=False, max depth=9, max features=None,
min samples leaf=3, min samples split=7, n estimators=108;, score=0.351 total
time=
       2.2s
[CV 5/5; 218/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=6;, score=0.396 total
time= 0.0s
[CV 3/5; 219/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8
[CV 1/5; 219/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8;, score=0.422 total
time= 0.0s
[CV 3/5; 218/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=6;, score=0.357 total
time= 0.1s
[CV 4/5; 219/400] START bootstrap=True, max depth=16, max features=sqrt,
min samples leaf=1, min samples split=3, n estimators=8
[CV 5/5; 219/400] START bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8
[CV 1/5; 220/400] START bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=84
[CV 2/5; 219/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8;, score=0.398 total
        0.1s[CV 4/5; 219/400] END bootstrap=True, max_depth=16,
max features=sqrt, min samples leaf=1, min samples split=3, n estimators=8;,
score=0.368 total time=
[CV 3/5; 219/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8;, score=0.425 total
time=
      0.1s
[CV 5/5; 219/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8;, score=0.433 total
time= 0.1s
[CV 2/5; 220/400] START bootstrap=False, max depth=6, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=84
[CV 3/5; 220/400] START bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=84
[CV 4/5; 220/400] START bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=84
[CV 5/5; 220/400] START bootstrap=False, max depth=6, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=84
[CV 1/5; 220/400] END bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=84;, score=0.417 total
time=
       0.3s
```

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[CV 1/5; 221/400] START bootstrap=False, max depth=17, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=168
[CV 5/5; 220/400] END bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=84;, score=0.383 total
time= 0.4s
[CV 4/5; 220/400] END bootstrap=False, max depth=6, max features=sqrt,
min samples leaf=3, min samples split=9, n estimators=84;, score=0.392 total
time= 0.4s
[CV 2/5; 221/400] START bootstrap=False, max depth=17, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=168
[CV 3/5; 220/400] END bootstrap=False, max_depth=6, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=84;, score=0.362 total
time=
      0.4s
[CV 3/5; 221/400] START bootstrap=False, max depth=17, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=168
[CV 4/5; 221/400] START bootstrap=False, max depth=17, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=168
[CV 2/5; 220/400] END bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=84;, score=0.390 total
time=
      0.4s
[CV 5/5; 221/400] START bootstrap=False, max depth=17, max features=None,
min samples leaf=1, min samples split=8, n estimators=168
[CV 1/5; 217/400] END bootstrap=True, max_depth=13, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=58;, score=0.428 total
time= 0.9s
[CV 1/5; 222/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=130
[CV 2/5; 217/400] END bootstrap=True, max_depth=13, max_features=None,
min samples leaf=1, min samples split=8, n estimators=58;, score=0.370 total
time=
      1.0s
[CV 2/5; 222/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=130
[CV 4/5; 217/400] END bootstrap=True, max_depth=13, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=58;, score=0.401 total
time=
      1.0s
[CV 3/5; 222/400] START bootstrap=False, max depth=12, max features=None,
min samples leaf=2, min samples split=9, n estimators=130
[CV 3/5; 217/400] END bootstrap=True, max_depth=13, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=58;, score=0.417 total
time=
      1.1s
[CV 4/5; 222/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=130
[CV 5/5; 217/400] END bootstrap=True, max_depth=13, max_features=None,
min samples leaf=1, min samples split=8, n estimators=58;, score=0.433 total
time=
      1.1s
[CV 5/5; 222/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=130
[CV 1/5; 222/400] END bootstrap=False, max depth=12, max features=None,
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min_samples_leaf=2, min_samples_split=9, n_estimators=130;, score=0.420 total
time=
      3.3s
[CV 1/5; 223/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=198
[CV 2/5; 222/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=130;, score=0.373 total
time= 3.1s
[CV 2/5; 223/400] START bootstrap=False, max depth=10, max features=sqrt,
min samples leaf=1, min samples split=9, n estimators=198
[CV 3/5; 222/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=130;, score=0.337 total
       3.2s
time=
[CV 3/5; 223/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=198
[CV 4/5; 222/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=130;, score=0.374 total
time=
       3.2s
[CV 4/5; 223/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=198
[CV 5/5; 222/400] END bootstrap=False, max depth=12, max features=None,
min samples leaf=2, min samples split=9, n estimators=130;, score=0.378 total
time= 3.2s
[CV 5/5; 223/400] START bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=198
[CV 1/5; 223/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=198;, score=0.422 total
time=
      1.4s
[CV 1/5; 224/400] START bootstrap=True, max depth=9, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=126
[CV 2/5; 223/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=198;, score=0.394 total
time= 1.4s
[CV 2/5; 224/400] START bootstrap=True, max depth=9, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=126
[CV 4/5; 223/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=198;, score=0.373 total
time= 1.4s
[CV 3/5; 224/400] START bootstrap=True, max depth=9, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=126
[CV 3/5; 223/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=198;, score=0.373 total
      1.4s
time=
[CV 4/5; 224/400] START bootstrap=True, max depth=9, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=126
[CV 5/5; 223/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=198;, score=0.400 total
time=
      1.4s
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[CV 5/5; 224/400] START bootstrap=True, max depth=9, max features=sqrt,

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min_samples_leaf=3, min_samples_split=8, n_estimators=126
[CV 2/5; 221/400] END bootstrap=False, max depth=17, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=168;, score=0.425 total
time= 5.1s
[CV 1/5; 225/400] START bootstrap=True, max depth=19, max features=None,
min samples leaf=2, min samples split=5, n estimators=198
[CV 1/5; 221/400] END bootstrap=False, max depth=17, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=168;, score=0.420 total
time=
      5.4s
[CV 2/5; 225/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198
[CV 1/5; 224/400] END bootstrap=True, max depth=9, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=126;, score=0.429 total
time=
       0.6s
[CV 3/5; 225/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198
[CV 5/5; 221/400] END bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=168;, score=0.391 total
time=
      5.3s
[CV 4/5; 225/400] START bootstrap=True, max depth=19, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198
[CV 2/5; 224/400] END bootstrap=True, max depth=9, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=126;, score=0.391 total
time=
      0.6s
[CV 5/5; 225/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198
[CV 3/5; 221/400] END bootstrap=False, max depth=17, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=168;, score=0.390 total
[CV 1/5; 226/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=38
[CV 4/5; 221/400] END bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=168;, score=0.402 total
time=
      5.5s
[CV 2/5; 226/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=38
[CV 3/5; 224/400] END bootstrap=True, max depth=9, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=126;, score=0.395 total
time= 0.6s
[CV 4/5; 224/400] END bootstrap=True, max_depth=9, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=126;, score=0.390 total
time=
      0.6s
[CV 3/5; 226/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=38
[CV 4/5; 226/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=38
[CV 5/5; 224/400] END bootstrap=True, max_depth=9, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=126;, score=0.419 total
```

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0.6s
time=
[CV 5/5; 226/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=38
[CV 1/5; 226/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min samples leaf=1, min samples split=8, n estimators=38;, score=0.416 total
time=
       0.3s
[CV 1/5; 227/400] START bootstrap=True, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=146
[CV 4/5; 226/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=38;, score=0.399 total
time= 0.2s
[CV 2/5; 227/400] START bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=146
[CV 3/5; 226/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=38;, score=0.433 total
time=
      0.2s
[CV 3/5; 227/400] START bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=146
[CV 2/5; 226/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min samples leaf=1, min samples split=8, n estimators=38;, score=0.398 total
time= 0.3s
[CV 4/5; 227/400] START bootstrap=True, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=146
[CV 5/5; 226/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=38;, score=0.448 total
time=
       0.3s
[CV 5/5; 227/400] START bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=146
[CV 1/5; 227/400] END bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=146;, score=0.433 total
time=
      0.7s
[CV 4/5; 227/400] END bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=146;, score=0.387 total
time=
      0.6s
[CV 1/5; 228/400] START bootstrap=True, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=94
[CV 2/5; 228/400] START bootstrap=True, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=94
[CV 3/5; 227/400] END bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=146;, score=0.394 total
time=
      0.7s
[CV 2/5; 227/400] END bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=146;, score=0.421 total
time=
      0.7s
[CV 3/5; 228/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=94
[CV 4/5; 228/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=94
```

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[CV 5/5; 227/400] END bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=146;, score=0.398 total
time=
      0.7s
[CV 5/5; 228/400] START bootstrap=True, max_depth=12, max_features=None,
min samples leaf=3, min samples split=2, n estimators=94
[CV 2/5; 228/400] END bootstrap=True, max depth=12, max features=None,
min samples leaf=3, min samples split=2, n estimators=94;, score=0.381 total
time= 1.4s
[CV 1/5; 228/400] END bootstrap=True, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=94;, score=0.447 total
time= 1.4s
[CV 1/5; 229/400] START bootstrap=True, max_depth=9, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=82
[CV 2/5; 229/400] START bootstrap=True, max depth=9, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=82
[CV 4/5; 228/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=94;, score=0.416 total
time= 1.4s
[CV 3/5; 229/400] START bootstrap=True, max_depth=9, max_features=sqrt,
min samples leaf=1, min samples split=3, n estimators=82
[CV 3/5; 228/400] END bootstrap=True, max depth=12, max features=None,
min samples leaf=3, min samples split=2, n estimators=94;, score=0.398 total
time= 1.5s
[CV 4/5; 229/400] START bootstrap=True, max_depth=9, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=82
[CV 5/5; 228/400] END bootstrap=True, max_depth=12, max_features=None,
min samples leaf=3, min samples split=2, n estimators=94;, score=0.424 total
time=
      1.4s
[CV 5/5; 229/400] START bootstrap=True, max depth=9, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=82
[CV 2/5; 229/400] END bootstrap=True, max depth=9, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=82;, score=0.399 total
time=
      0.3s
[CV 1/5; 230/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min samples leaf=2, min samples split=5, n estimators=42
[CV 1/5; 229/400] END bootstrap=True, max depth=9, max features=sqrt,
min samples leaf=1, min samples split=3, n estimators=82;, score=0.422 total
time=
      0.4s
[CV 2/5; 230/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=42
[CV 3/5; 229/400] END bootstrap=True, max_depth=9, max_features=sqrt,
min samples leaf=1, min samples split=3, n estimators=82;, score=0.402 total
      0.4s
[CV 3/5; 230/400] START bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=42
[CV 5/5; 229/400] END bootstrap=True, max_depth=9, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=82;, score=0.416 total
time=
       0.4s
```

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[CV 4/5; 230/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=42
[CV 4/5; 229/400] END bootstrap=True, max_depth=9, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=82;, score=0.410 total
time= 0.4s
[CV 5/5; 230/400] START bootstrap=True, max depth=15, max features=sqrt,
min samples leaf=2, min samples split=5, n estimators=42
[CV 2/5; 230/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min samples leaf=2, min samples split=5, n estimators=42;, score=0.388 total
time=
      0.3s
[CV 1/5; 231/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=110
[CV 1/5; 230/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min samples leaf=2, min samples split=5, n estimators=42;, score=0.439 total
       0.3s
[CV 2/5; 231/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=110
[CV 3/5; 230/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=42;, score=0.387 total
time=
      0.3s
[CV 3/5; 231/400] START bootstrap=False, max depth=12, max features=None,
min samples leaf=3, min samples split=7, n estimators=110
[CV 4/5; 230/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=42;, score=0.391 total
time= 0.3s
[CV 4/5; 231/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=110
[CV 5/5; 230/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min samples leaf=2, min samples split=5, n estimators=42;, score=0.427 total
time=
      0.3s
[CV 5/5; 231/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=110
[CV 1/5; 225/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198;, score=0.414 total
time= 4.1s
[CV 1/5; 232/400] START bootstrap=False, max depth=None, max features=sqrt,
min samples leaf=2, min samples split=8, n estimators=70
[CV 2/5; 225/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198;, score=0.388 total
time=
      4.0s
[CV 2/5; 232/400] START bootstrap=False, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=70
[CV 5/5; 225/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198;, score=0.435 total
time=
      4.0s
[CV 3/5; 232/400] START bootstrap=False, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=70
[CV 4/5; 225/400] END bootstrap=True, max_depth=19, max_features=None,
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- min\_samples\_leaf=2, min\_samples\_split=5, n\_estimators=198;, score=0.396 total time= 4.1s
- [CV 4/5; 232/400] START bootstrap=False, max\_depth=None, max\_features=sqrt, min\_samples\_leaf=2, min\_samples\_split=8, n\_estimators=70
- [CV 3/5; 225/400] END bootstrap=True, max\_depth=19, max\_features=None, min\_samples\_leaf=2, min\_samples\_split=5, n\_estimators=198;, score=0.403 total time= 4.2s
- [CV 5/5; 232/400] START bootstrap=False, max\_depth=None, max\_features=sqrt, min\_samples\_leaf=2, min\_samples\_split=8, n\_estimators=70
- [CV 1/5; 232/400] END bootstrap=False, max\_depth=None, max\_features=sqrt, min\_samples\_leaf=2, min\_samples\_split=8, n\_estimators=70;, score=0.398 total time= 0.9s
- [CV 1/5; 233/400] START bootstrap=True, max\_depth=None, max\_features=None, min\_samples\_leaf=2, min\_samples\_split=9, n\_estimators=54
- [CV 2/5; 232/400] END bootstrap=False, max\_depth=None, max\_features=sqrt, min\_samples\_leaf=2, min\_samples\_split=8, n\_estimators=70;, score=0.387 total time= 0.9s
- [CV 2/5; 233/400] START bootstrap=True, max\_depth=None, max\_features=None, min\_samples\_leaf=2, min\_samples\_split=9, n\_estimators=54
- [CV 4/5; 232/400] END bootstrap=False, max\_depth=None, max\_features=sqrt, min\_samples\_leaf=2, min\_samples\_split=8, n\_estimators=70;, score=0.377 total time= 0.9s
- [CV 3/5; 233/400] START bootstrap=True, max\_depth=None, max\_features=None, min\_samples\_leaf=2, min\_samples\_split=9, n\_estimators=54
- [CV 3/5; 232/400] END bootstrap=False, max\_depth=None, max\_features=sqrt, min\_samples\_leaf=2, min\_samples\_split=8, n\_estimators=70;, score=0.373 total time= 0.9s
- [CV 4/5; 233/400] START bootstrap=True, max\_depth=None, max\_features=None, min\_samples\_leaf=2, min\_samples\_split=9, n\_estimators=54
- [CV 5/5; 232/400] END bootstrap=False, max\_depth=None, max\_features=sqrt, min\_samples\_leaf=2, min\_samples\_split=8, n\_estimators=70;, score=0.396 total time= 0.9s
- [CV 5/5; 233/400] START bootstrap=True, max\_depth=None, max\_features=None, min\_samples\_leaf=2, min\_samples\_split=9, n\_estimators=54
- [CV 2/5; 231/400] END bootstrap=False, max\_depth=12, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=7, n\_estimators=110;, score=0.379 total time= 2.7s
- [CV 1/5; 234/400] START bootstrap=True, max\_depth=None, max\_features=None, min\_samples\_leaf=1, min\_samples\_split=5, n\_estimators=112
- [CV 1/5; 231/400] END bootstrap=False, max\_depth=12, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=7, n\_estimators=110;, score=0.427 total time= 2.7s
- [CV 5/5; 231/400] END bootstrap=False, max\_depth=12, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=7, n\_estimators=110;, score=0.390 total time= 2.6s
- [CV 2/5; 234/400] START bootstrap=True, max\_depth=None, max\_features=None, min\_samples\_leaf=1, min\_samples\_split=5, n\_estimators=112
- [CV 3/5; 234/400] START bootstrap=True, max\_depth=None, max\_features=None,

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min_samples_leaf=1, min_samples_split=5, n_estimators=112
[CV 3/5; 231/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=110;, score=0.333 total
       2.8s
[CV 4/5; 234/400] START bootstrap=True, max depth=None, max features=None,
min samples leaf=1, min samples split=5, n estimators=112
[CV 1/5; 233/400] END bootstrap=True, max depth=None, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=54;, score=0.405 total
time=
      1.1s
[CV 5/5; 234/400] START bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=112
[CV 4/5; 231/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=110;, score=0.369 total
time=
        2.8s
[CV 2/5; 233/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=54;, score=0.379 total
time=
       1.1s
[CV 1/5; 235/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=102
[CV 2/5; 235/400] START bootstrap=True, max depth=16, max features=None,
min samples leaf=2, min samples split=2, n estimators=102
[CV 3/5; 233/400] END bootstrap=True, max depth=None, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=54;, score=0.424 total
time=
      1.2s
[CV 3/5; 235/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=102
[CV 4/5; 233/400] END bootstrap=True, max_depth=None, max_features=None,
min samples leaf=2, min samples split=9, n estimators=54;, score=0.388 total
[CV 4/5; 235/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=102
[CV 5/5; 233/400] END bootstrap=True, max_depth=None, max_features=None,
min samples leaf=2, min samples split=9, n estimators=54;, score=0.440 total
time=
      1.3s
[CV 5/5; 235/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=102
[CV 1/5; 235/400] END bootstrap=True, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=102;, score=0.436 total
time= 1.9s
[CV 1/5; 236/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=80
[CV 2/5; 235/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=102;, score=0.402 total
time=
      1.9s
[CV 2/5; 236/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=80
[CV 4/5; 235/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=102;, score=0.402 total
```

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time=
        1.8s
[CV 3/5; 236/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=80
[CV 3/5; 235/400] END bootstrap=True, max_depth=16, max_features=None,
min samples leaf=2, min samples split=2, n estimators=102;, score=0.413 total
       1.9s
time=
[CV 4/5; 236/400] START bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=80
[CV 5/5; 235/400] END bootstrap=True, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=102;, score=0.420 total
time= 1.9s
[CV 5/5; 236/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=80
[CV 2/5; 234/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=112;, score=0.388 total
time=
      2.4s
[CV 1/5; 237/400] START bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=80
[CV 2/5; 236/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min samples leaf=2, min samples split=6, n estimators=80;, score=0.401 total
time= 0.4s
[CV 1/5; 234/400] END bootstrap=True, max depth=None, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=112;, score=0.406 total
time=
       2.5s
[CV 2/5; 237/400] START bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=80
[CV 3/5; 237/400] START bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=80
[CV 1/5; 236/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=80;, score=0.439 total
time=
      0.5s
[CV 4/5; 237/400] START bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=80
[CV 3/5; 236/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min samples leaf=2, min samples split=6, n estimators=80;, score=0.399 total
time= 0.4s
[CV 5/5; 237/400] START bootstrap=True, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=80
[CV 5/5; 234/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=112;, score=0.437 total
time=
      2.5s
[CV 1/5; 238/400] START bootstrap=False, max depth=15, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=98
[CV 3/5; 234/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=112;, score=0.409 total
[CV 4/5; 236/400] END bootstrap=True, max_depth=15, max_features=sqrt,
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min samples leaf=2, min samples split=6, n estimators=80;, score=0.398 total

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0.5s
time=
[CV 2/5; 238/400] START bootstrap=False, max depth=15, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=98
[CV 4/5; 234/400] END bootstrap=True, max_depth=None, max_features=None,
min samples leaf=1, min samples split=5, n estimators=112;, score=0.377 total
time=
        2.5s
[CV 3/5; 238/400] START bootstrap=False, max depth=15, max features=None,
min samples leaf=2, min samples split=5, n estimators=98
[CV 4/5; 238/400] START bootstrap=False, max depth=15, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=98
[CV 5/5; 236/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min samples leaf=2, min samples split=6, n estimators=80;, score=0.416 total
time=
      0.5s
[CV 5/5; 238/400] START bootstrap=False, max depth=15, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=98
[CV 1/5; 237/400] END bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=80;, score=0.422 total
time= 0.6s
[CV 1/5; 239/400] START bootstrap=False, max_depth=16, max_features=None,
min samples leaf=2, min samples split=7, n estimators=18
[CV 3/5; 237/400] END bootstrap=True, max depth=19, max features=sqrt,
min samples leaf=1, min samples split=6, n estimators=80;, score=0.405 total
time= 0.5s
[CV 2/5; 239/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=18
[CV 2/5; 237/400] END bootstrap=True, max_depth=19, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=80;, score=0.377 total
time=
      0.6s
[CV 3/5; 239/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=18
[CV 4/5; 237/400] END bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=80;, score=0.391 total
time=
      0.6s
[CV 4/5; 239/400] START bootstrap=False, max_depth=16, max_features=None,
min samples leaf=2, min samples split=7, n estimators=18
[CV 5/5; 237/400] END bootstrap=True, max_depth=19, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=80;, score=0.429 total
time=
      0.6s
[CV 5/5; 239/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=18
[CV 1/5; 239/400] END bootstrap=False, max_depth=16, max_features=None,
min samples leaf=2, min samples split=7, n estimators=18;, score=0.409 total
      0.5s
[CV 1/5; 240/400] START bootstrap=True, max depth=7, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120
[CV 2/5; 239/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=18;, score=0.399 total
time=
       0.6s
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[CV 2/5; 240/400] START bootstrap=True, max depth=7, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120
[CV 3/5; 239/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=18;, score=0.390 total
time= 0.6s
[CV 3/5; 240/400] START bootstrap=True, max depth=7, max features=None,
min samples leaf=2, min samples split=3, n estimators=120
[CV 4/5; 239/400] END bootstrap=False, max_depth=16, max_features=None,
min samples leaf=2, min samples split=7, n estimators=18;, score=0.390 total
time=
      0.6s
[CV 4/5; 240/400] START bootstrap=True, max depth=7, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120
[CV 5/5; 239/400] END bootstrap=False, max depth=16, max features=None,
min samples leaf=2, min samples split=7, n estimators=18;, score=0.398 total
       0.6s
[CV 5/5; 240/400] START bootstrap=True, max depth=7, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120
[CV 1/5; 240/400] END bootstrap=True, max_depth=7, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120;, score=0.418 total
time=
      1.2s
[CV 1/5; 241/400] START bootstrap=True, max depth=9, max features=sqrt,
min samples leaf=2, min samples split=7, n estimators=92
[CV 3/5; 240/400] END bootstrap=True, max_depth=7, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120;, score=0.361 total
time= 1.2s
[CV 2/5; 240/400] END bootstrap=True, max depth=7, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120;, score=0.394 total
time=
      1.3s
[CV 2/5; 241/400] START bootstrap=True, max_depth=9, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=92
[CV 3/5; 241/400] START bootstrap=True, max depth=9, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=92
[CV 4/5; 240/400] END bootstrap=True, max depth=7, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120;, score=0.372 total
time=
      1.2s
[CV 4/5; 241/400] START bootstrap=True, max depth=9, max features=sqrt,
min samples leaf=2, min samples split=7, n estimators=92
[CV 5/5; 240/400] END bootstrap=True, max_depth=7, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120;, score=0.408 total
time=
      1.3s
[CV 5/5; 241/400] START bootstrap=True, max_depth=9, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=92
[CV 1/5; 241/400] END bootstrap=True, max depth=9, max features=sqrt,
min samples leaf=2, min samples split=7, n estimators=92;, score=0.435 total
time=
      0.4s
[CV 1/5; 242/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=150
[CV 3/5; 241/400] END bootstrap=True, max_depth=9, max_features=sqrt,
```

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min samples leaf=2, min samples split=7, n estimators=92;, score=0.398 total
time=
      0.4s
[CV 2/5; 241/400] END bootstrap=True, max depth=9, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=92;, score=0.387 total
time= 0.4s
[CV 2/5; 242/400] START bootstrap=True, max depth=18, max features=None,
min samples leaf=3, min samples split=3, n estimators=150
[CV 3/5; 242/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=150
[CV 4/5; 241/400] END bootstrap=True, max_depth=9, max_features=sqrt,
min samples leaf=2, min samples split=7, n estimators=92;, score=0.398 total
      0.4s
[CV 4/5; 242/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=150
[CV 5/5; 241/400] END bootstrap=True, max_depth=9, max_features=sqrt,
min samples leaf=2, min samples split=7, n estimators=92;, score=0.409 total
time=
      0.4s
[CV 5/5; 242/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=150
[CV 1/5; 238/400] END bootstrap=False, max depth=15, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=98;, score=0.416 total
time=
       2.9s
[CV 1/5; 243/400] START bootstrap=True, max depth=11, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=36
[CV 3/5; 238/400] END bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=98;, score=0.396 total
      3.1s[CV 1/5; 243/400] END bootstrap=True, max_depth=11,
max_features=sqrt, min_samples_leaf=1, min_samples_split=6, n_estimators=36;,
score=0.403 total time=
                         0.1s
[CV 2/5; 243/400] START bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=36
[CV 4/5; 238/400] END bootstrap=False, max depth=15, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=98;, score=0.374 total
time= 3.0s
[CV 2/5; 238/400] END bootstrap=False, max depth=15, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=98;, score=0.390 total
time=
       3.1s
[CV 3/5; 243/400] START bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=36
[CV 4/5; 243/400] START bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=36
[CV 5/5; 243/400] START bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=36
[CV 2/5; 243/400] END bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=36;, score=0.385 total
time=
       0.2s
[CV 5/5; 238/400] END bootstrap=False, max depth=15, max features=None,
```

```
min samples leaf=2, min samples split=5, n estimators=98;, score=0.409 total
time=
      3.0s
[CV 1/5; 244/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=196
[CV 2/5; 244/400] START bootstrap=True, max depth=18, max features=sqrt,
min samples leaf=1, min samples split=8, n estimators=196
[CV 5/5; 243/400] END bootstrap=True, max depth=11, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=36;, score=0.435 total
time=
      0.2s
[CV 4/5; 243/400] END bootstrap=True, max_depth=11, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=36;, score=0.383 total
      0.2s
[CV 3/5; 244/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=196
[CV 4/5; 244/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=196
[CV 3/5; 243/400] END bootstrap=True, max_depth=11, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=36;, score=0.392 total
time=
      0.2s
[CV 5/5; 244/400] START bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=196
[CV 1/5; 244/400] END bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=196;, score=0.431 total
time=
      1.2s
[CV 1/5; 245/400] START bootstrap=True, max_depth=17, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=188
[CV 4/5; 244/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=196;, score=0.405 total
[CV 2/5; 244/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=196;, score=0.398 total
time= 1.3s
[CV 2/5; 245/400] START bootstrap=True, max_depth=17, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=188
[CV 3/5; 245/400] START bootstrap=True, max depth=17, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=188
[CV 5/5; 244/400] END bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=196;, score=0.431 total
time= 1.3s
[CV 4/5; 245/400] START bootstrap=True, max_depth=17, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=188
[CV 3/5; 244/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=196;, score=0.417 total
time=
      1.3s
[CV 5/5; 245/400] START bootstrap=True, max_depth=17, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=188
[CV 1/5; 242/400] END bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=150;, score=0.422 total
```

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time=
        2.8s
[CV 1/5; 246/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=126
[CV 2/5; 242/400] END bootstrap=True, max_depth=18, max_features=None,
min samples leaf=3, min samples split=3, n estimators=150;, score=0.392 total
time=
        2.9s
[CV 2/5; 246/400] START bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=126
[CV 4/5; 242/400] END bootstrap=True, max depth=18, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=150;, score=0.388 total
time=
       2.9s
[CV 3/5; 246/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=126
[CV 3/5; 242/400] END bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=150;, score=0.417 total
time=
      3.0s
[CV 4/5; 246/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=126
[CV 2/5; 245/400] END bootstrap=True, max_depth=17, max_features=sqrt,
min samples leaf=1, min samples split=4, n estimators=188;, score=0.403 total
time=
      1.2s
[CV 5/5; 246/400] START bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=126
[CV 5/5; 242/400] END bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=150;, score=0.430 total
time=
       2.9s
[CV 1/5; 247/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=48
[CV 1/5; 245/400] END bootstrap=True, max_depth=17, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=188;, score=0.429 total
time=
      1.3s
[CV 2/5; 247/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=48
[CV 3/5; 245/400] END bootstrap=True, max_depth=17, max_features=sqrt,
min samples leaf=1, min samples split=4, n estimators=188;, score=0.405 total
time=
      1.2s
[CV 3/5; 247/400] START bootstrap=True, max depth=14, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=48
[CV 4/5; 245/400] END bootstrap=True, max_depth=17, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=188;, score=0.384 total
time=
      1.2s
[CV 4/5; 247/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=48
[CV 5/5; 245/400] END bootstrap=True, max_depth=17, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=188;, score=0.434 total
[CV 5/5; 247/400] START bootstrap=True, max_depth=14, max_features=None,
```

min\_samples\_leaf=2, min\_samples\_split=8, n\_estimators=48

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[CV 1/5; 246/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=126;, score=0.431 total
time=
      0.8s
[CV 1/5; 248/400] START bootstrap=False, max_depth=10, max_features=sqrt,
min samples leaf=1, min samples split=3, n estimators=78
[CV 2/5; 246/400] END bootstrap=True, max depth=18, max features=sqrt,
min samples leaf=3, min samples split=5, n estimators=126;, score=0.406 total
time=
      0.8s
[CV 2/5; 248/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=78
[CV 3/5; 246/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=126;, score=0.392 total
time=
      0.8s
[CV 3/5; 248/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=78
[CV 4/5; 246/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=126;, score=0.398 total
time= 0.8s
[CV 4/5; 248/400] START bootstrap=False, max_depth=10, max_features=sqrt,
min samples leaf=1, min samples split=3, n estimators=78
[CV 5/5; 246/400] END bootstrap=True, max depth=18, max features=sqrt,
min samples leaf=3, min samples split=5, n estimators=126;, score=0.415 total
time= 0.8s
[CV 5/5; 248/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=78
[CV 2/5; 247/400] END bootstrap=True, max_depth=14, max_features=None,
min samples leaf=2, min samples split=8, n estimators=48;, score=0.399 total
time=
      0.8s
[CV 1/5; 249/400] START bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=16
[CV 3/5; 247/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=48;, score=0.406 total
time=
      0.8s
[CV 2/5; 249/400] START bootstrap=False, max_depth=17, max_features=sqrt,
min samples leaf=1, min samples split=8, n estimators=16
[CV 1/5; 247/400] END bootstrap=True, max depth=14, max features=None,
min samples leaf=2, min samples split=8, n estimators=48;, score=0.428 total
time=
      0.9s
[CV 3/5; 249/400] START bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=16
[CV 4/5; 247/400] END bootstrap=True, max_depth=14, max_features=None,
min samples leaf=2, min samples split=8, n estimators=48;, score=0.403 total
      0.9s
[CV 4/5; 249/400] START bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=16
[CV 1/5; 249/400] END bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=16;, score=0.425 total
```

time=

0.2s

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[CV 5/5; 249/400] START bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=16
[CV 3/5; 249/400] END bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=16;, score=0.401 total
time= 0.1s
[CV 2/5; 249/400] END bootstrap=False, max depth=17, max features=sqrt,
min samples leaf=1, min samples split=8, n estimators=16;, score=0.385 total
time=
      0.2s
[CV 1/5; 250/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=44
[CV 2/5; 250/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=44
[CV 5/5; 247/400] END bootstrap=True, max_depth=14, max_features=None,
min samples leaf=2, min samples split=8, n estimators=48;, score=0.422 total
[CV 1/5; 248/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=78;, score=0.422 total
time= 0.5s
[CV 3/5; 250/400] START bootstrap=False, max_depth=10, max_features=sqrt,
min samples leaf=3, min samples split=5, n estimators=44
[CV 4/5; 250/400] START bootstrap=False, max depth=10, max features=sqrt,
min samples leaf=3, min samples split=5, n estimators=44
[CV 4/5; 249/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=16;, score=0.390 total
time= 0.2s
[CV 5/5; 250/400] START bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=44
[CV 2/5; 248/400] END bootstrap=False, max depth=10, max features=sqrt,
min samples leaf=1, min samples split=3, n estimators=78;, score=0.398 total
time=
      0.5s
[CV 1/5; 251/400] START bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=24
[CV 5/5; 249/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=16;, score=0.412 total
time=
      0.2s
[CV 2/5; 251/400] START bootstrap=True, max depth=11, max features=None,
min samples leaf=2, min samples split=7, n estimators=24
[CV 3/5; 248/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=78;, score=0.366 total
time=
      0.6s
[CV 3/5; 251/400] START bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=24
[CV 4/5; 248/400] END bootstrap=False, max depth=10, max features=sqrt,
min samples leaf=1, min samples split=3, n estimators=78;, score=0.373 total
time=
      0.6s
[CV 4/5; 251/400] START bootstrap=True, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=24
[CV 5/5; 250/400] END bootstrap=False, max_depth=10, max_features=sqrt,
```

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min samples leaf=3, min samples split=5, n estimators=44;, score=0.416 total
time=
      0.3s
[CV 1/5; 250/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=44;, score=0.413 total
time= 0.3s
[CV 5/5; 251/400] START bootstrap=True, max depth=11, max features=None,
min samples leaf=2, min samples split=7, n estimators=24
[CV 1/5; 252/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=172
[CV 5/5; 248/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min samples leaf=1, min samples split=3, n estimators=78;, score=0.416 total
time=
       0.6s
[CV 2/5; 252/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=172
[CV 2/5; 250/400] END bootstrap=False, max depth=10, max features=sqrt,
min samples leaf=3, min samples split=5, n estimators=44;, score=0.390 total
time=
      0.4s
[CV 3/5; 252/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=172
[CV 3/5; 250/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=44;, score=0.368 total
time= 0.4s
[CV 4/5; 252/400] START bootstrap=True, max_depth=16, max_features=None,
min samples leaf=3, min samples split=4, n estimators=172
[CV 4/5; 250/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min samples leaf=3, min samples split=5, n estimators=44;, score=0.364 total
time=
      0.4s
[CV 5/5; 252/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=172
[CV 1/5; 251/400] END bootstrap=True, max_depth=11, max_features=None,
min samples leaf=2, min samples split=7, n estimators=24;, score=0.436 total
time= 0.3s
[CV 1/5; 253/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=126
[CV 2/5; 251/400] END bootstrap=True, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=24;, score=0.370 total
time= 0.4s
[CV 2/5; 253/400] START bootstrap=False, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=126
[CV 4/5; 251/400] END bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=24;, score=0.380 total
      0.4s
time=
[CV 3/5; 253/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=126
[CV 3/5; 251/400] END bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=24;, score=0.384 total
time=
      0.4s
```

[CV 4/5; 253/400] START bootstrap=False, max\_depth=6, max\_features=None,

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min_samples_leaf=3, min_samples_split=3, n_estimators=126
[CV 5/5; 251/400] END bootstrap=True, max_depth=11, max_features=None,
min samples leaf=2, min samples split=7, n estimators=24;, score=0.400 total
time= 0.4s
[CV 5/5; 253/400] START bootstrap=False, max depth=6, max features=None,
min samples leaf=3, min samples split=3, n estimators=126
[CV 2/5; 253/400] END bootstrap=False, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=126;, score=0.391 total
time=
      1.7s
[CV 1/5; 254/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=46
[CV 1/5; 253/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=126;, score=0.406 total
time=
      1.8s
[CV 2/5; 254/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=46
[CV 3/5; 253/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=126;, score=0.357 total
time=
      1.7s
[CV 3/5; 254/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=46
[CV 4/5; 253/400] END bootstrap=False, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=126;, score=0.372 total
time=
      1.8s
[CV 4/5; 254/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=46
[CV 5/5; 253/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=126;, score=0.393 total
[CV 5/5; 254/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=46
[CV 1/5; 254/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=1, min samples split=6, n estimators=46;, score=0.414 total
time=
      0.8s
[CV 1/5; 255/400] START bootstrap=False, max_depth=8, max_features=None,
min samples leaf=1, min samples split=7, n estimators=138
[CV 2/5; 254/400] END bootstrap=False, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=46;, score=0.372 total
time= 0.8s
[CV 2/5; 255/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=138
[CV 3/5; 254/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=1, min samples split=6, n estimators=46;, score=0.348 total
time=
      0.9s
[CV 3/5; 255/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=138
[CV 5/5; 254/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=1, min samples split=6, n estimators=46;, score=0.375 total
```

```
time=
        0.8s
[CV 4/5; 255/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=138
[CV 4/5; 254/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=1, min samples split=6, n estimators=46;, score=0.348 total
       0.9s
time=
[CV 5/5; 255/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=138
[CV 2/5; 252/400] END bootstrap=True, max depth=16, max features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=172;, score=0.390 total
time=
      3.1s
[CV 1/5; 256/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=98
[CV 5/5; 252/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=172;, score=0.429 total
time=
      3.2s
[CV 2/5; 256/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=98
[CV 3/5; 252/400] END bootstrap=True, max_depth=16, max_features=None,
min samples leaf=3, min samples split=4, n estimators=172;, score=0.413 total
time=
      3.2s
[CV 3/5; 256/400] START bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=98
[CV 1/5; 252/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=172;, score=0.432 total
time=
       3.3s
[CV 4/5; 256/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=98
[CV 4/5; 252/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=172;, score=0.391 total
time=
       3.2s
[CV 5/5; 256/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=98
[CV 1/5; 256/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min samples leaf=2, min samples split=7, n estimators=98;, score=0.436 total
time= 0.7s
[CV 2/5; 256/400] END bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=98;, score=0.398 total
time= 0.6s
[CV 1/5; 257/400] START bootstrap=False, max_depth=10, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=60
[CV 2/5; 257/400] START bootstrap=False, max depth=10, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=60
[CV 3/5; 256/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=98;, score=0.413 total
[CV 3/5; 257/400] START bootstrap=False, max_depth=10, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=60
```

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[CV 4/5; 256/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=98;, score=0.407 total
time=
      0.6s
[CV 4/5; 257/400] START bootstrap=False, max_depth=10, max_features=None,
min samples leaf=2, min samples split=2, n estimators=60
[CV 5/5; 256/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min samples leaf=2, min samples split=7, n estimators=98;, score=0.422 total
time=
      0.6s
[CV 5/5; 257/400] START bootstrap=False, max depth=10, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=60
[CV 2/5; 257/400] END bootstrap=False, max depth=10, max features=None,
min samples leaf=2, min samples split=2, n estimators=60;, score=0.376 total
time=
      1.3s
[CV 1/5; 258/400] START bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=174
[CV 4/5; 257/400] END bootstrap=False, max_depth=10, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=60;, score=0.359 total
time= 1.3s
[CV 2/5; 258/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=1, min samples split=7, n estimators=174
[CV 1/5; 257/400] END bootstrap=False, max depth=10, max features=None,
min samples leaf=2, min samples split=2, n estimators=60;, score=0.387 total
time= 1.3s
[CV 3/5; 258/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=174
[CV 3/5; 257/400] END bootstrap=False, max_depth=10, max_features=None,
min samples leaf=2, min samples split=2, n estimators=60;, score=0.351 total
time=
      1.3s
[CV 4/5; 258/400] START bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=174
[CV 5/5; 257/400] END bootstrap=False, max depth=10, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=60;, score=0.367 total
time=
      1.3s
[CV 5/5; 258/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=1, min samples split=7, n estimators=174
[CV 1/5; 255/400] END bootstrap=False, max depth=8, max features=None,
min samples leaf=1, min samples split=7, n estimators=138;, score=0.414 total
time=
       2.5s
[CV 1/5; 259/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=88
[CV 2/5; 255/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=138;, score=0.372 total
time=
       2.5s
[CV 2/5; 259/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=88
[CV 3/5; 255/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=138;, score=0.348 total
```

time=

2.5s

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[CV 3/5; 259/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=88
[CV 4/5; 255/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=138;, score=0.350 total
time= 2.6s
[CV 4/5; 259/400] START bootstrap=False, max depth=16, max features=None,
min samples leaf=1, min samples split=7, n estimators=88
[CV 5/5; 255/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=1, min samples split=7, n estimators=138;, score=0.375 total
time=
       2.5s
[CV 5/5; 259/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=88
[CV 1/5; 258/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=174;, score=0.440 total
[CV 3/5; 258/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=174;, score=0.396 total
time= 0.9s
[CV 1/5; 260/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=76
[CV 2/5; 260/400] START bootstrap=True, max depth=16, max features=sqrt,
min samples leaf=1, min samples split=6, n estimators=76
[CV 4/5; 258/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=174;, score=0.392 total
time= 0.9s
[CV 3/5; 260/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=76
[CV 2/5; 258/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=174;, score=0.403 total
time=
      1.0s
[CV 4/5; 260/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=76
[CV 5/5; 258/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=174;, score=0.429 total
time= 0.9s
[CV 5/5; 260/400] START bootstrap=True, max depth=16, max features=sqrt,
min samples leaf=1, min samples split=6, n estimators=76
[CV 3/5; 260/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=76;, score=0.401 total
      0.4s
[CV 2/5; 260/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=76;, score=0.395 total
      0.4s
[CV 1/5; 261/400] START bootstrap=False, max depth=20, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=120
[CV 2/5; 261/400] START bootstrap=False, max depth=20, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=120
[CV 1/5; 260/400] END bootstrap=True, max_depth=16, max_features=sqrt,
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min samples leaf=1, min samples split=6, n estimators=76;, score=0.439 total
time=
      0.5s
[CV 3/5; 261/400] START bootstrap=False, max depth=20, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=120
[CV 4/5; 260/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=76;, score=0.407 total
time= 0.5s
[CV 4/5; 261/400] START bootstrap=False, max_depth=20, max_features=None,
min samples leaf=3, min samples split=9, n estimators=120
[CV 5/5; 260/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=76;, score=0.430 total
       0.5s
time=
[CV 5/5; 261/400] START bootstrap=False, max depth=20, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=120
[CV 1/5; 259/400] END bootstrap=False, max_depth=16, max_features=None,
min samples leaf=1, min samples split=7, n estimators=88;, score=0.413 total
time=
       2.7s
[CV 1/5; 262/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=178
[CV 2/5; 259/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=88;, score=0.399 total
time=
       2.7s
[CV 2/5; 262/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=178
[CV 5/5; 259/400] END bootstrap=False, max_depth=16, max_features=None,
min samples leaf=1, min samples split=7, n estimators=88;, score=0.385 total
time=
      2.7s
[CV 3/5; 259/400] END bootstrap=False, max_depth=16, max_features=None,
min samples leaf=1, min samples split=7, n estimators=88;, score=0.381 total
time=
      2.8s
[CV 4/5; 259/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=88;, score=0.387 total
time=
      2.8s
[CV 3/5; 262/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=178
[CV 4/5; 262/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=178
[CV 5/5; 262/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=178
[CV 2/5; 262/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=178;, score=0.391 total
      1.0s
time=
[CV 1/5; 263/400] START bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=114
[CV 1/5; 262/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=178;, score=0.407 total
time=
      1.2s
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[CV 2/5; 263/400] START bootstrap=False, max\_depth=7, max\_features=None,

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min_samples_leaf=1, min_samples_split=2, n_estimators=114
[CV 5/5; 262/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=178;, score=0.394 total
time= 1.0s
[CV 3/5; 263/400] START bootstrap=False, max depth=7, max features=None,
min samples leaf=1, min samples split=2, n estimators=114
[CV 3/5; 262/400] END bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=178;, score=0.377 total
time=
      1.1s
[CV 4/5; 263/400] START bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=114
[CV 4/5; 262/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=178;, score=0.379 total
time=
      1.1s
[CV 5/5; 263/400] START bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=114
[CV 2/5; 261/400] END bootstrap=False, max_depth=20, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=120;, score=0.409 total
time=
      4.1s
[CV 1/5; 264/400] START bootstrap=True, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=146
[CV 1/5; 261/400] END bootstrap=False, max depth=20, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=120;, score=0.401 total
time=
      4.2s
[CV 2/5; 264/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=146
[CV 4/5; 261/400] END bootstrap=False, max depth=20, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=120;, score=0.392 total
[CV 3/5; 264/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=146
[CV 5/5; 261/400] END bootstrap=False, max_depth=20, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=120;, score=0.405 total
time=
      4.2s
[CV 4/5; 264/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=146
[CV 3/5; 261/400] END bootstrap=False, max depth=20, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=120;, score=0.383 total
time= 4.3s
[CV 5/5; 264/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=146
[CV 2/5; 263/400] END bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=114;, score=0.392 total
time=
      1.8s
[CV 1/5; 263/400] END bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=114;, score=0.403 total
time=
      1.9s
[CV 2/5; 265/400] START bootstrap=True, max depth=5, max features=sqrt,
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min_samples_leaf=2, min_samples_split=3, n_estimators=8
[CV 1/5; 265/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=8
[CV 1/5; 265/400] END bootstrap=True, max_depth=5, max_features=sqrt,
min samples leaf=2, min samples split=3, n estimators=8;, score=0.444 total
time=
       0.0s
[CV 3/5; 265/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=8
[CV 2/5; 265/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=8;, score=0.377 total
time= 0.0s
[CV 4/5; 265/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=8
[CV 3/5; 265/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=8;, score=0.369 total
time=
      0.0s
[CV 5/5; 265/400] START bootstrap=True, max_depth=5, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=8
[CV 4/5; 265/400] END bootstrap=True, max_depth=5, max_features=sqrt,
min samples leaf=2, min samples split=3, n estimators=8;, score=0.376 total
time= 0.0s
[CV 1/5; 266/400] START bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=108
[CV 5/5; 265/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=8;, score=0.413 total
time=
       0.0s
[CV 2/5; 266/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=108
[CV 3/5; 263/400] END bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=114;, score=0.343 total
time=
      1.9s
[CV 3/5; 266/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=108
[CV 4/5; 263/400] END bootstrap=False, max_depth=7, max_features=None,
min samples leaf=1, min samples split=2, n estimators=114;, score=0.369 total
time= 1.9s
[CV 4/5; 266/400] START bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=108
[CV 5/5; 263/400] END bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=114;, score=0.330 total
time=
      1.9s
[CV 5/5; 266/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=108
[CV 1/5; 266/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=108;, score=0.450 total
[CV 1/5; 267/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=150
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[CV 2/5; 266/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=108;, score=0.385 total
time=
      0.7s
[CV 2/5; 267/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=2, min samples split=6, n estimators=150
[CV 4/5; 266/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min samples leaf=3, min samples split=2, n estimators=108;, score=0.414 total
time= 0.6s
[CV 5/5; 266/400] END bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=108;, score=0.418 total
time= 0.6s
[CV 3/5; 266/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=108;, score=0.392 total
time=
      0.7s
[CV 4/5; 267/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=150
[CV 5/5; 267/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=150
[CV 3/5; 267/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=2, min samples split=6, n estimators=150
[CV 1/5; 267/400] END bootstrap=False, max depth=8, max features=sqrt,
min samples leaf=2, min samples split=6, n estimators=150;, score=0.425 total
time= 0.8s
[CV 1/5; 268/400] START bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=182
[CV 2/5; 267/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=150;, score=0.388 total
time=
      0.8s
[CV 2/5; 268/400] START bootstrap=False, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=182
[CV 4/5; 267/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=150;, score=0.377 total
time=
      0.9s
[CV 3/5; 268/400] START bootstrap=False, max_depth=17, max_features=None,
min samples leaf=2, min samples split=4, n estimators=182
[CV 3/5; 267/400] END bootstrap=False, max depth=8, max features=sqrt,
min samples leaf=2, min samples split=6, n estimators=150;, score=0.369 total
time=
      0.9s
[CV 4/5; 268/400] START bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=182
[CV 5/5; 267/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=150;, score=0.390 total
[CV 5/5; 268/400] START bootstrap=False, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=182
[CV 1/5; 264/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=146;, score=0.435 total
time=
       2.3s
```

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[CV 3/5; 264/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=146;, score=0.392 total
time=
       2.2s
[CV 1/5; 269/400] START bootstrap=False, max_depth=14, max_features=None,
min samples leaf=3, min samples split=6, n estimators=86
[CV 2/5; 269/400] START bootstrap=False, max depth=14, max features=None,
min samples leaf=3, min samples split=6, n estimators=86
[CV 4/5; 264/400] END bootstrap=True, max_depth=12, max_features=None,
min samples leaf=3, min samples split=8, n estimators=146;, score=0.412 total
time=
       2.2s
[CV 3/5; 269/400] START bootstrap=False, max depth=14, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=86
[CV 2/5; 264/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=146;, score=0.395 total
[CV 4/5; 269/400] START bootstrap=False, max depth=14, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=86
[CV 5/5; 264/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=146;, score=0.434 total
time=
       2.3s
[CV 5/5; 269/400] START bootstrap=False, max depth=14, max features=None,
min samples leaf=3, min samples split=6, n estimators=86
[CV 1/5; 269/400] END bootstrap=False, max_depth=14, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=86;, score=0.427 total
time=
       2.3s
[CV 1/5; 270/400] START bootstrap=True, max depth=9, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=74
[CV 4/5; 269/400] END bootstrap=False, max depth=14, max features=None,
min samples leaf=3, min samples split=6, n estimators=86;, score=0.388 total
time=
       2.3s
[CV 2/5; 270/400] START bootstrap=True, max depth=9, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=74
[CV 2/5; 269/400] END bootstrap=False, max depth=14, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=86;, score=0.398 total
time=
      2.4s
[CV 3/5; 270/400] START bootstrap=True, max depth=9, max features=None,
min samples leaf=3, min samples split=6, n estimators=74
[CV 3/5; 269/400] END bootstrap=False, max_depth=14, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=86;, score=0.399 total
time=
       2.4s
[CV 4/5; 270/400] START bootstrap=True, max_depth=9, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=74
[CV 5/5; 269/400] END bootstrap=False, max depth=14, max features=None,
min samples leaf=3, min samples split=6, n estimators=86;, score=0.365 total
time=
        2.4s
[CV 5/5; 270/400] START bootstrap=True, max depth=9, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=74
[CV 1/5; 270/400] END bootstrap=True, max_depth=9, max_features=None,
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min samples leaf=3, min samples split=6, n estimators=74;, score=0.435 total
time=
      0.9s
[CV 1/5; 271/400] START bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=160
[CV 2/5; 270/400] END bootstrap=True, max depth=9, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=74;, score=0.385 total
time= 0.9s
[CV 2/5; 271/400] START bootstrap=False, max_depth=14, max_features=sqrt,
min samples leaf=2, min samples split=4, n estimators=160
[CV 3/5; 270/400] END bootstrap=True, max_depth=9, max_features=None,
min samples leaf=3, min samples split=6, n estimators=74;, score=0.392 total
       0.9s
time=
[CV 3/5; 271/400] START bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=160
[CV 4/5; 270/400] END bootstrap=True, max depth=9, max features=None,
min samples leaf=3, min samples split=6, n estimators=74;, score=0.395 total
time=
      1.0s
[CV 4/5; 271/400] START bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=160
[CV 5/5; 270/400] END bootstrap=True, max depth=9, max features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=74;, score=0.424 total
time= 0.9s
[CV 5/5; 271/400] START bootstrap=False, max_depth=14, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=160
[CV 2/5; 271/400] END bootstrap=False, max_depth=14, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=160;, score=0.392 total
time=
      1.4s
[CV 1/5; 272/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=64
[CV 1/5; 271/400] END bootstrap=False, max_depth=14, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=160;, score=0.420 total
time= 1.5s
[CV 2/5; 272/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=64
[CV 4/5; 271/400] END bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=160;, score=0.388 total
time= 1.4s
[CV 3/5; 272/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=64
[CV 3/5; 271/400] END bootstrap=False, max_depth=14, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=160;, score=0.383 total
      1.5s
time=
[CV 4/5; 272/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=64
[CV 5/5; 271/400] END bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=160;, score=0.397 total
time=
      1.4s
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[CV 5/5; 272/400] START bootstrap=False, max depth=16, max features=None,

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min_samples_leaf=2, min_samples_split=8, n_estimators=64
[CV 1/5; 268/400] END bootstrap=False, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=182;, score=0.412 total
time= 5.9s
[CV 1/5; 273/400] START bootstrap=True, max depth=14, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=8
[CV 5/5; 268/400] END bootstrap=False, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=182;, score=0.413 total
time=
      5.8s
[CV 2/5; 268/400] END bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=182;, score=0.416 total
       6.0s
[CV 2/5; 273/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=8
[CV 3/5; 273/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=8
[CV 1/5; 273/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=8;, score=0.387 total
time=
      0.1s
[CV 4/5; 273/400] START bootstrap=True, max depth=14, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=8
[CV 2/5; 273/400] END bootstrap=True, max depth=14, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=8;, score=0.369 total
time=
      0.1s
[CV 5/5; 273/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=8
[CV 3/5; 273/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=8;, score=0.401 total
[CV 1/5; 274/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=58
[CV 4/5; 268/400] END bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=182;, score=0.395 total
time=
      6.0s
[CV 4/5; 273/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=8;, score=0.418 total
time= 0.1s
[CV 2/5; 274/400] START bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=58
[CV 3/5; 274/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=58
[CV 3/5; 268/400] END bootstrap=False, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=182;, score=0.396 total
time=
       6.1s
[CV 5/5; 273/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=8;, score=0.416 total
time=
      0.2s
```

[CV 4/5; 274/400] START bootstrap=True, max\_depth=20, max\_features=sqrt,

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min_samples_leaf=2, min_samples_split=6, n_estimators=58
[CV 5/5; 274/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=58
[CV 1/5; 274/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min samples leaf=2, min samples split=6, n estimators=58;, score=0.436 total
time=
       0.4s
[CV 1/5; 275/400] START bootstrap=False, max depth=6, max features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=144
[CV 2/5; 274/400] END bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=58;, score=0.396 total
time= 0.4s
[CV 2/5; 275/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=144
[CV 3/5; 274/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=58;, score=0.413 total
time=
      0.4s
[CV 3/5; 275/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=144
[CV 4/5; 274/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min samples leaf=2, min samples split=6, n estimators=58;, score=0.396 total
time= 0.4s
[CV 4/5; 275/400] START bootstrap=False, max depth=6, max features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=144
[CV 5/5; 274/400] END bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=58;, score=0.427 total
time=
       0.4s
[CV 5/5; 275/400] START bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=144
[CV 2/5; 272/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=64;, score=0.401 total
time=
       2.0s
[CV 1/5; 276/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=50
[CV 1/5; 272/400] END bootstrap=False, max_depth=16, max_features=None,
min samples leaf=2, min samples split=8, n estimators=64;, score=0.414 total
       2.0s
time=
[CV 2/5; 276/400] START bootstrap=True, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=50
[CV 4/5; 272/400] END bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=64;, score=0.394 total
time=
       2.0s
[CV 3/5; 276/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=50
[CV 3/5; 272/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=64;, score=0.390 total
[CV 4/5; 276/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=50
```

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[CV 5/5; 272/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=64;, score=0.390 total
time=
       2.0s
[CV 5/5; 276/400] START bootstrap=True, max_depth=17, max_features=None,
min samples leaf=2, min samples split=2, n estimators=50
[CV 1/5; 276/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=2, min samples split=2, n estimators=50;, score=0.421 total
time= 1.0s
[CV 1/5; 277/400] START bootstrap=True, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=104
[CV 2/5; 276/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=2, min samples split=2, n estimators=50;, score=0.405 total
time=
      1.0s
[CV 2/5; 277/400] START bootstrap=True, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=104
[CV 3/5; 276/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=50;, score=0.421 total
time= 1.0s
[CV 3/5; 277/400] START bootstrap=True, max_depth=16, max_features=None,
min samples leaf=1, min samples split=2, n estimators=104
[CV 4/5; 276/400] END bootstrap=True, max depth=17, max features=None,
min samples leaf=2, min samples split=2, n estimators=50;, score=0.395 total
time= 1.0s
[CV 4/5; 277/400] START bootstrap=True, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=104
[CV 5/5; 276/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=2, min samples split=2, n estimators=50;, score=0.445 total
time=
      1.0s
[CV 5/5; 277/400] START bootstrap=True, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=104
[CV 4/5; 275/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=144;, score=0.374 total
time= 1.9s
[CV 1/5; 278/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min samples leaf=2, min samples split=7, n estimators=36
[CV 1/5; 275/400] END bootstrap=False, max depth=6, max features=None,
min samples leaf=2, min samples split=6, n estimators=144;, score=0.406 total
time=
       2.1s
[CV 2/5; 278/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=36
[CV 2/5; 275/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=144;, score=0.392 total
[CV 3/5; 278/400] START bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=36
[CV 3/5; 275/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=144;, score=0.357 total
time=
       2.1s
```

```
[CV 4/5; 278/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=36
[CV 5/5; 275/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=144;, score=0.394 total
time= 2.1s
[CV 5/5; 278/400] START bootstrap=True, max depth=18, max features=sqrt,
min samples leaf=2, min samples split=7, n estimators=36
[CV 1/5; 278/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min samples leaf=2, min samples split=7, n estimators=36;, score=0.413 total
time=
      0.2s
[CV 1/5; 279/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=130
[CV 2/5; 278/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min samples leaf=2, min samples split=7, n estimators=36;, score=0.377 total
[CV 2/5; 279/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=130
[CV 4/5; 278/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=36;, score=0.403 total
time=
      0.2s
[CV 3/5; 279/400] START bootstrap=True, max depth=5, max features=sqrt,
min samples leaf=2, min samples split=6, n estimators=130
[CV 3/5; 278/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=36;, score=0.390 total
time= 0.3s
[CV 4/5; 279/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=130
[CV 5/5; 278/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min samples leaf=2, min samples split=7, n estimators=36;, score=0.429 total
time=
      0.2s
[CV 5/5; 279/400] START bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=130
[CV 1/5; 279/400] END bootstrap=True, max_depth=5, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=130;, score=0.417 total
time= 0.4s
[CV 2/5; 279/400] END bootstrap=True, max depth=5, max features=sqrt,
min samples leaf=2, min samples split=6, n estimators=130;, score=0.416 total
time=
      0.4s
[CV 1/5; 280/400] START bootstrap=False, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=152
[CV 2/5; 280/400] START bootstrap=False, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=152
[CV 3/5; 279/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=130;, score=0.364 total
time=
      0.4s
[CV 4/5; 279/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=130;, score=0.387 total
time=
      0.4s
```

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[CV 3/5; 280/400] START bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=152
[CV 4/5; 280/400] START bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=152
[CV 5/5; 279/400] END bootstrap=True, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=130;, score=0.379 total
time= 0.4s
[CV 5/5; 280/400] START bootstrap=False, max depth=16, max features=sqrt,
min samples leaf=1, min samples split=5, n estimators=152
[CV 1/5; 277/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=104;, score=0.443 total
       2.0s
time=
[CV 1/5; 281/400] START bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=174
[CV 2/5; 277/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=104;, score=0.384 total
time=
       2.1s
[CV 2/5; 281/400] START bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=174
[CV 3/5; 277/400] END bootstrap=True, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=104;, score=0.407 total
time=
       2.0s
[CV 3/5; 281/400] START bootstrap=False, max_depth=6, max_features=sqrt,
min samples leaf=2, min samples split=8, n estimators=174
[CV 4/5; 277/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=104;, score=0.387 total
time=
      2.1s
[CV 4/5; 281/400] START bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=174
[CV 5/5; 277/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=104;, score=0.426 total
[CV 5/5; 281/400] START bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=174
[CV 1/5; 280/400] END bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=152;, score=0.417 total
time= 1.5s
[CV 1/5; 282/400] START bootstrap=True, max depth=11, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=102
[CV 2/5; 280/400] END bootstrap=False, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=152;, score=0.383 total
      1.6s
time=
[CV 2/5; 282/400] START bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=102
[CV 4/5; 280/400] END bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=152;, score=0.398 total
time=
      1.5s
[CV 3/5; 282/400] START bootstrap=True, max_depth=11, max_features=None,
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min_samples_leaf=3, min_samples_split=7, n_estimators=102
[CV 3/5; 280/400] END bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=152;, score=0.387 total
time= 1.6s
[CV 1/5; 281/400] END bootstrap=False, max depth=6, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=174;, score=0.416 total
[CV 4/5; 282/400] START bootstrap=True, max_depth=11, max_features=None,
min samples leaf=3, min samples split=7, n estimators=102
[CV 5/5; 282/400] START bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=102
[CV 2/5; 281/400] END bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=174;, score=0.387 total
time=
       0.8s
[CV 1/5; 283/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=138
[CV 5/5; 280/400] END bootstrap=False, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=152;, score=0.398 total
time=
      1.5s
[CV 2/5; 283/400] START bootstrap=True, max depth=14, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=138
[CV 3/5; 281/400] END bootstrap=False, max depth=6, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=174;, score=0.368 total
time=
      0.8s
[CV 3/5; 283/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=138
[CV 4/5; 281/400] END bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=174;, score=0.385 total
[CV 4/5; 283/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=138
[CV 5/5; 281/400] END bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=174;, score=0.386 total
time=
      0.8s
[CV 5/5; 283/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=138
[CV 1/5; 283/400] END bootstrap=True, max depth=14, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=138;, score=0.425 total
time= 0.8s
[CV 1/5; 284/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74
[CV 2/5; 283/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=138;, score=0.403 total
time=
      0.8s
[CV 2/5; 284/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74
[CV 3/5; 283/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=138;, score=0.421 total
```

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time=
        0.8s
[CV 3/5; 284/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74
[CV 5/5; 283/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min samples leaf=1, min samples split=3, n estimators=138;, score=0.423 total
time=
       0.8s
[CV 4/5; 284/400] START bootstrap=True, max depth=14, max features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74
[CV 4/5; 283/400] END bootstrap=True, max depth=14, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=138;, score=0.396 total
time= 0.9s
[CV 5/5; 284/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74
[CV 1/5; 284/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74;, score=0.449 total
time= 0.4s
[CV 1/5; 285/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=32
[CV 1/5; 282/400] END bootstrap=True, max_depth=11, max_features=None,
min samples leaf=3, min samples split=7, n estimators=102;, score=0.444 total
time=
      1.5s
[CV 2/5; 285/400] START bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=32
[CV 2/5; 284/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74;, score=0.399 total
time=
       0.5s
[CV 3/5; 285/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=32
[CV 2/5; 285/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=32;, score=0.407 total
time=
      0.1s
[CV 2/5; 282/400] END bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=102;, score=0.395 total
time=
      1.5s
[CV 3/5; 284/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74;, score=0.403 total
time= 0.4s
[CV 1/5; 285/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=32;, score=0.413 total
time=
      0.1s
[CV 4/5; 285/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=32
[CV 5/5; 285/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=32
[CV 1/5; 286/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=56
[CV 2/5; 286/400] START bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=56
```

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[CV 5/5; 282/400] END bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=102;, score=0.416 total
time=
      1.4s
[CV 4/5; 282/400] END bootstrap=True, max_depth=11, max_features=None,
min samples leaf=3, min samples split=7, n estimators=102;, score=0.418 total
time=
[CV 3/5; 286/400] START bootstrap=True, max depth=8, max features=None,
min samples leaf=2, min samples split=3, n estimators=56
[CV 3/5; 282/400] END bootstrap=True, max depth=11, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=102;, score=0.406 total
time= 1.5s
[CV 4/5; 286/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=56
[CV 3/5; 285/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min samples leaf=3, min samples split=3, n estimators=32;, score=0.359 total
time= 0.2s
[CV 5/5; 286/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=56
[CV 4/5; 285/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min samples leaf=3, min samples split=3, n estimators=32;, score=0.388 total
time= 0.1s
[CV 5/5; 285/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=32;, score=0.393 total
time=
      0.1s
[CV 1/5; 287/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=86
[CV 3/5; 287/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=86
[CV 2/5; 287/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=86
[CV 5/5; 284/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74;, score=0.407 total
time=
      0.4s
[CV 4/5; 287/400] START bootstrap=True, max_depth=18, max_features=None,
min samples leaf=1, min samples split=7, n estimators=86
[CV 4/5; 284/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min samples leaf=2, min samples split=2, n estimators=74;, score=0.383 total
time=
      0.5s
[CV 5/5; 287/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=86
[CV 3/5; 286/400] END bootstrap=True, max_depth=8, max_features=None,
min samples leaf=2, min samples split=3, n estimators=56;, score=0.379 total
      0.6s
[CV 1/5; 288/400] START bootstrap=True, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=88
[CV 1/5; 286/400] END bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=56;, score=0.416 total
```

time=

0.7s

```
[CV 2/5; 288/400] START bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=88
[CV 2/5; 286/400] END bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=56;, score=0.388 total
time= 0.7s
[CV 3/5; 288/400] START bootstrap=True, max depth=13, max features=sqrt,
min samples leaf=1, min samples split=4, n estimators=88
[CV 5/5; 286/400] END bootstrap=True, max_depth=8, max_features=None,
min samples leaf=2, min samples split=3, n estimators=56;, score=0.408 total
time=
      0.7s
[CV 4/5; 288/400] START bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=88
[CV 4/5; 286/400] END bootstrap=True, max depth=8, max features=None,
min samples leaf=2, min samples split=3, n estimators=56;, score=0.384 total
       0.7s
[CV 5/5; 288/400] START bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=88
[CV 2/5; 288/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=88;, score=0.392 total
time=
      0.5s
[CV 1/5; 289/400] START bootstrap=False, max depth=19, max features=sqrt,
min samples leaf=1, min samples split=4, n estimators=184
[CV 1/5; 288/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=88;, score=0.429 total
time= 0.6s
[CV 2/5; 289/400] START bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=184
[CV 3/5; 288/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min samples leaf=1, min samples split=4, n estimators=88;, score=0.398 total
time=
      0.5s
[CV 3/5; 289/400] START bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=184
[CV 5/5; 288/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=88;, score=0.400 total
time= 0.5s
[CV 4/5; 289/400] START bootstrap=False, max depth=19, max features=sqrt,
min samples leaf=1, min samples split=4, n estimators=184
[CV 4/5; 288/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=88;, score=0.405 total
time=
      0.6s
[CV 5/5; 289/400] START bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=184
[CV 2/5; 287/400] END bootstrap=True, max_depth=18, max_features=None,
min samples leaf=1, min samples split=7, n estimators=86;, score=0.407 total
time=
      1.7s
[CV 3/5; 287/400] END bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=86;, score=0.429 total
time=
      1.7s
```

```
[CV 1/5; 290/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=16[CV 2/5; 290/400] START
bootstrap=False, max_depth=8, max_features=sqrt, min_samples_leaf=1,
min_samples_split=4, n_estimators=16
[CV 5/5; 287/400] END bootstrap=True, max depth=18, max features=None,
min samples leaf=1, min samples split=7, n estimators=86;, score=0.438 total
time=
      1.7s
[CV 3/5; 290/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=16
[CV 4/5; 287/400] END bootstrap=True, max_depth=18, max_features=None,
min samples leaf=1, min samples split=7, n estimators=86;, score=0.392 total
time=
      1.7s
[CV 4/5; 290/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=16
[CV 1/5; 287/400] END bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=86;, score=0.428 total
time= 1.8s
[CV 5/5; 290/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=1, min samples split=4, n estimators=16
[CV 2/5; 290/400] END bootstrap=False, max depth=8, max features=sqrt,
min samples leaf=1, min samples split=4, n estimators=16;, score=0.385 total
time= 0.1s
[CV 1/5; 290/400] END bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=16;, score=0.436 total
time=
      0.1s
[CV 1/5; 291/400] START bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=4
[CV 2/5; 291/400] START bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=4
[CV 2/5; 291/400] END bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=4;, score=0.380 total
time=
      0.0s
[CV 3/5; 291/400] START bootstrap=True, max_depth=8, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=4
[CV 1/5; 291/400] END bootstrap=True, max_depth=8, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=4;, score=0.401 total
time=
      0.0s
[CV 4/5; 291/400] START bootstrap=True, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=4
[CV 4/5; 291/400] END bootstrap=True, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=4;, score=0.428 total
      0.0s
[CV 5/5; 291/400] START bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=4
[CV 3/5; 291/400] END bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=4;, score=0.394 total
```

time=

0.0s

```
[CV 1/5; 292/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=168
[CV 5/5; 291/400] END bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=4;, score=0.393 total
time= 0.0s
[CV 4/5; 290/400] END bootstrap=False, max depth=8, max features=sqrt,
min samples leaf=1, min samples split=4, n estimators=16;, score=0.376 total
time= 0.1s
[CV 2/5; 292/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=168
[CV 3/5; 292/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=168
[CV 5/5; 290/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=1, min samples split=4, n estimators=16;, score=0.397 total
       0.1s
[CV 4/5; 292/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=168
[CV 3/5; 290/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=16;, score=0.376 total
time=
      0.2s
[CV 5/5; 292/400] START bootstrap=False, max depth=10, max features=sqrt,
min samples leaf=1, min samples split=7, n estimators=168
[CV 1/5; 292/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=168;, score=0.406 total
time= 1.2s
[CV 1/5; 293/400] START bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=44
[CV 2/5; 292/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=168;, score=0.385 total
time=
      1.2s
[CV 5/5; 292/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=168;, score=0.394 total
time= 1.2s
[CV 2/5; 293/400] START bootstrap=False, max_depth=13, max_features=sqrt,
min samples leaf=3, min samples split=2, n estimators=44
[CV 3/5; 293/400] START bootstrap=False, max depth=13, max features=sqrt,
min samples leaf=3, min samples split=2, n estimators=44
[CV 3/5; 292/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=168;, score=0.372 total
      1.2s
time=
[CV 4/5; 293/400] START bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=44
[CV 2/5; 289/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=184;, score=0.409 total
time=
       2.0s
[CV 5/5; 293/400] START bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=44
[CV 1/5; 289/400] END bootstrap=False, max_depth=19, max_features=sqrt,
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min_samples_leaf=1, min_samples_split=4, n_estimators=184;, score=0.429 total
time=
      2.1s
[CV 4/5; 292/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=168;, score=0.373 total
time= 1.2s
[CV 2/5; 294/400] START bootstrap=False, max depth=13, max features=None,
min samples leaf=3, min samples split=7, n estimators=76
[CV 1/5; 294/400] START bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=76
[CV 4/5; 289/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=184;, score=0.384 total
       2.0s
time=
[CV 3/5; 294/400] START bootstrap=False, max depth=13, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=76
[CV 5/5; 289/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=184;, score=0.412 total
time=
       2.1s
[CV 4/5; 294/400] START bootstrap=False, max depth=13, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=76
[CV 3/5; 289/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=184;, score=0.370 total
time=
       2.2s
[CV 5/5; 294/400] START bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=76
[CV 1/5; 293/400] END bootstrap=False, max_depth=13, max_features=sqrt,
min samples leaf=3, min samples split=2, n estimators=44;, score=0.443 total
time= 0.4s
[CV 1/5; 295/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=128
[CV 2/5; 293/400] END bootstrap=False, max_depth=13, max_features=sqrt,
min samples leaf=3, min samples split=2, n estimators=44;, score=0.395 total
time= 0.4s
[CV 2/5; 295/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=128
[CV 4/5; 293/400] END bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=44;, score=0.390 total
time= 0.4s
[CV 3/5; 293/400] END bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=44;, score=0.379 total
      0.4s
[CV 5/5; 293/400] END bootstrap=False, max_depth=13, max_features=sqrt,
min samples leaf=3, min samples split=2, n estimators=44;, score=0.396 total
      0.4s
[CV 3/5; 295/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=128
[CV 4/5; 295/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=128
```

[CV 5/5; 295/400] START bootstrap=True, max\_depth=20, max\_features=None,

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min_samples_leaf=1, min_samples_split=4, n_estimators=128
[CV 2/5; 294/400] END bootstrap=False, max depth=13, max features=None,
min samples leaf=3, min samples split=7, n estimators=76;, score=0.384 total
       2.0s
[CV 1/5; 296/400] START bootstrap=False, max depth=17, max features=sqrt,
min samples leaf=3, min samples split=2, n estimators=134
[CV 1/5; 294/400] END bootstrap=False, max depth=13, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=76;, score=0.436 total
time=
       2.0s
[CV 2/5; 296/400] START bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=134
[CV 4/5; 294/400] END bootstrap=False, max depth=13, max features=None,
min samples leaf=3, min samples split=7, n estimators=76;, score=0.383 total
time=
        2.0s
[CV 3/5; 296/400] START bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=134
[CV 3/5; 294/400] END bootstrap=False, max_depth=13, max_features=None,
min samples leaf=3, min samples split=7, n estimators=76;, score=0.398 total
time=
      2.2s
[CV 4/5; 296/400] START bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=134
[CV 5/5; 294/400] END bootstrap=False, max depth=13, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=76;, score=0.394 total
time=
      2.1s
[CV 5/5; 296/400] START bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=134
[CV 5/5; 295/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=128;, score=0.438 total
[CV 1/5; 297/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=110
[CV 2/5; 295/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=128;, score=0.395 total
time=
       2.7s
[CV 2/5; 297/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=110
[CV 4/5; 295/400] END bootstrap=True, max depth=20, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=128;, score=0.388 total
time=
       2.8s
[CV 1/5; 295/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=128;, score=0.421 total
time=
       2.8s
[CV 3/5; 297/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=110
[CV 4/5; 297/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=110
[CV 3/5; 295/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=128;, score=0.410 total
```

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time=
        2.8s
[CV 5/5; 297/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=110
[CV 1/5; 296/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min samples leaf=3, min samples split=2, n estimators=134;, score=0.422 total
        1.4s
time=
[CV 1/5; 298/400] START bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=46
[CV 2/5; 296/400] END bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=134;, score=0.398 total
time= 1.4s
[CV 1/5; 298/400] END bootstrap=True, max depth=6, max features=sqrt,
min samples leaf=3, min samples split=7, n estimators=46;, score=0.422 total
time=
      0.1s
[CV 2/5; 298/400] START bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=46
[CV 3/5; 298/400] START bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=46
[CV 3/5; 296/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min samples leaf=3, min samples split=2, n estimators=134;, score=0.379 total
time=
      1.4s
[CV 4/5; 298/400] START bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=46
[CV 4/5; 296/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=134;, score=0.383 total
time=
       1.4s
[CV 2/5; 298/400] END bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=46;, score=0.403 total
[CV 5/5; 298/400] START bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=46
[CV 1/5; 299/400] START bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=50
[CV 5/5; 296/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min samples leaf=3, min samples split=2, n estimators=134;, score=0.407 total
time= 1.4s
[CV 2/5; 299/400] START bootstrap=True, max depth=None, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=50
[CV 3/5; 298/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=46;, score=0.372 total
time=
      0.2s
[CV 3/5; 299/400] START bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=50
[CV 4/5; 298/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=46;, score=0.387 total
[CV 5/5; 298/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=46;, score=0.393 total
```

```
time=
       0.1s
[CV 4/5; 299/400] START bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=50
[CV 5/5; 299/400] START bootstrap=True, max_depth=None, max_features=None,
min samples leaf=2, min samples split=7, n estimators=50
[CV 2/5; 299/400] END bootstrap=True, max_depth=None, max_features=None,
min samples leaf=2, min samples split=7, n estimators=50;, score=0.396 total
time=
      1.1s
[CV 1/5; 300/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=162
[CV 3/5; 299/400] END bootstrap=True, max_depth=None, max_features=None,
min samples leaf=2, min samples split=7, n estimators=50;, score=0.413 total
time=
      1.1s
[CV 2/5; 300/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=162
[CV 1/5; 299/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=50;, score=0.395 total
time= 1.2s
[CV 5/5; 299/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=50;, score=0.452 total
[CV 3/5; 300/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=162
[CV 4/5; 300/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=162
[CV 4/5; 299/400] END bootstrap=True, max_depth=None, max_features=None,
min samples leaf=2, min samples split=7, n estimators=50;, score=0.370 total
time=
      1.1s
[CV 5/5; 300/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=162
[CV 2/5; 297/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=110;, score=0.394 total
time=
      2.2s
[CV 1/5; 301/400] START bootstrap=False, max_depth=None, max_features=sqrt,
min samples leaf=3, min samples split=3, n estimators=82
[CV 4/5; 297/400] END bootstrap=True, max_depth=20, max_features=None,
min samples leaf=2, min samples split=5, n estimators=110;, score=0.394 total
time=
      2.2s
[CV 3/5; 297/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=110;, score=0.413 total
time=
      2.2s
[CV 2/5; 301/400] START bootstrap=False, max depth=None, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=82
[CV 3/5; 301/400] START bootstrap=False, max depth=None, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=82
[CV 5/5; 297/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=110;, score=0.427 total
time=
       2.3s
```

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[CV 4/5; 301/400] START bootstrap=False, max_depth=None, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=82
[CV 1/5; 297/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=110;, score=0.435 total
time= 2.4s
[CV 5/5; 301/400] START bootstrap=False, max_depth=None, max_features=sqrt,
min samples leaf=3, min samples split=3, n estimators=82
[CV 2/5; 301/400] END bootstrap=False, max_depth=None, max_features=sqrt,
min samples leaf=3, min samples split=3, n estimators=82;, score=0.403 total
time=
      0.9s
[CV 1/5; 302/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=188
[CV 1/5; 301/400] END bootstrap=False, max_depth=None, max_features=sqrt,
min samples leaf=3, min samples split=3, n estimators=82;, score=0.398 total
[CV 2/5; 302/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=188
[CV 3/5; 301/400] END bootstrap=False, max_depth=None, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=82;, score=0.388 total
time=
      1.1s
[CV 5/5; 301/400] END bootstrap=False, max depth=None, max features=sqrt,
min samples leaf=3, min samples split=3, n estimators=82;, score=0.413 total
[CV 4/5; 301/400] END bootstrap=False, max_depth=None, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=82;, score=0.376 total
time=
      1.0s
[CV 3/5; 302/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=188
[CV 4/5; 302/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=188
[CV 5/5; 302/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=188
[CV 2/5; 300/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=162;, score=0.372 total
time=
      2.9s
[CV 1/5; 303/400] START bootstrap=False, max depth=8, max features=None,
min samples leaf=1, min samples split=6, n estimators=86
[CV 1/5; 300/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=162;, score=0.414 total
time=
      3.0s
[CV 2/5; 303/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=86
[CV 4/5; 300/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=162;, score=0.350 total
time=
        3.0s
[CV 3/5; 303/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=86
[CV 3/5; 300/400] END bootstrap=False, max_depth=8, max_features=None,
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min_samples_leaf=1, min_samples_split=7, n_estimators=162;, score=0.348 total
time=
      3.0s
[CV 4/5; 303/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=86
[CV 5/5; 300/400] END bootstrap=False, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=162;, score=0.376 total
time= 3.0s
[CV 5/5; 303/400] START bootstrap=False, max_depth=8, max_features=None,
min samples leaf=1, min samples split=6, n estimators=86
[CV 1/5; 303/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=1, min samples split=6, n estimators=86;, score=0.414 total
[CV 2/5; 303/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=1, min samples split=6, n estimators=86;, score=0.372 total
[CV 1/5; 304/400] START bootstrap=False, max depth=20, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=172
[CV 2/5; 304/400] START bootstrap=False, max depth=20, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=172
[CV 4/5; 303/400] END bootstrap=False, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=86;, score=0.348 total
time= 1.6s
[CV 3/5; 304/400] START bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=172
[CV 3/5; 303/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=1, min samples split=6, n estimators=86;, score=0.348 total
time=
      1.6s
[CV 4/5; 304/400] START bootstrap=False, max depth=20, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=172
[CV 5/5; 303/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=1, min samples split=6, n estimators=86;, score=0.375 total
      1.6s
[CV 5/5; 304/400] START bootstrap=False, max depth=20, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=172
[CV 2/5; 302/400] END bootstrap=True, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=188;, score=0.383 total
time= 3.8s
[CV 1/5; 305/400] START bootstrap=False, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=140
[CV 3/5; 302/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=188;, score=0.405 total
time=
       3.8s
[CV 2/5; 305/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=140
[CV 1/5; 302/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=188;, score=0.428 total
time=
       4.0s
[CV 3/5; 305/400] START bootstrap=False, max_depth=8, max_features=None,
```

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min_samples_leaf=1, min_samples_split=5, n_estimators=140
[CV 5/5; 302/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=188;, score=0.440 total
time= 3.9s
[CV 4/5; 305/400] START bootstrap=False, max depth=8, max features=None,
min samples leaf=1, min samples split=5, n estimators=140
[CV 4/5; 302/400] END bootstrap=True, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=188;, score=0.405 total
time=
      3.9s
[CV 5/5; 305/400] START bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=140
[CV 2/5; 304/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=172;, score=0.402 total
time=
      1.8s
[CV 1/5; 306/400] START bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148
[CV 1/5; 304/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=172;, score=0.399 total
time=
      1.8s
[CV 2/5; 306/400] START bootstrap=True, max depth=None, max features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148
[CV 4/5; 304/400] END bootstrap=False, max depth=20, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=172;, score=0.391 total
time=
      1.8s
[CV 3/5; 306/400] START bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148
[CV 5/5; 304/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=172;, score=0.398 total
[CV 3/5; 304/400] END bootstrap=False, max depth=20, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=172;, score=0.399 total
[CV 4/5; 306/400] START bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148
[CV 5/5; 306/400] START bootstrap=True, max depth=None, max features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148
[CV 1/5; 305/400] END bootstrap=False, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=140;, score=0.414 total
time=
       2.5s
[CV 1/5; 307/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=82
[CV 2/5; 305/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=140;, score=0.372 total
time=
       2.5s
[CV 2/5; 307/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=82
[CV 3/5; 305/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=140;, score=0.348 total
```

```
time=
        2.6s
[CV 3/5; 307/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=82
[CV 4/5; 305/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=1, min samples split=5, n estimators=140;, score=0.348 total
time=
        2.6s
[CV 4/5; 307/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=82
[CV 5/5; 305/400] END bootstrap=False, max depth=8, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=140;, score=0.375 total
time=
       2.6s
[CV 5/5; 307/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=82
[CV 1/5; 307/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=82;, score=0.407 total
time=
      0.9s
[CV 1/5; 308/400] START bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198
[CV 2/5; 307/400] END bootstrap=False, max_depth=5, max_features=None,
min samples leaf=1, min samples split=6, n estimators=82;, score=0.379 total
time= 0.9s
[CV 2/5; 308/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198
[CV 4/5; 307/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=82;, score=0.381 total
time=
       0.9s
[CV 3/5; 308/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198
[CV 3/5; 307/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=82;, score=0.348 total
time=
      1.1s
[CV 4/5; 308/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198
[CV 5/5; 307/400] END bootstrap=False, max_depth=5, max_features=None,
min samples leaf=1, min samples split=6, n estimators=82;, score=0.380 total
time= 1.1s
[CV 5/5; 308/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198
[CV 1/5; 306/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148;, score=0.417 total
time=
      3.2s
[CV 2/5; 306/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148;, score=0.392 total
time=
       3.2s
[CV 1/5; 309/400] START bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=2
[CV 1/5; 309/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=2;, score=0.392 total
```

```
0.0s
time=
[CV 2/5; 309/400] START bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=2
[CV 3/5; 309/400] START bootstrap=False, max_depth=19, max_features=sqrt,
min samples leaf=1, min samples split=3, n estimators=2
[CV 2/5; 309/400] END bootstrap=False, max depth=19, max features=sqrt,
min samples leaf=1, min samples split=3, n estimators=2;, score=0.370 total
time= 0.0s
[CV 4/5; 309/400] START bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=2
[CV 4/5; 309/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=2;, score=0.362 total
time=
      0.0s
[CV 3/5; 309/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=2;, score=0.365 total
time=
      0.0s
[CV 5/5; 309/400] START bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=2
[CV 1/5; 310/400] START bootstrap=False, max_depth=15, max_features=None,
min samples leaf=1, min samples split=5, n estimators=66
[CV 5/5; 309/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=2;, score=0.383 total
time= 0.0s
[CV 2/5; 310/400] START bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=66
[CV 4/5; 306/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148;, score=0.384 total
time=
       3.1s
[CV 3/5; 310/400] START bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=66
[CV 5/5; 306/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148;, score=0.441 total
time=
      3.2s
[CV 4/5; 310/400] START bootstrap=False, max_depth=15, max_features=None,
min samples leaf=1, min samples split=5, n estimators=66
[CV 3/5; 306/400] END bootstrap=True, max_depth=None, max_features=None,
min samples leaf=3, min samples split=4, n estimators=148;, score=0.427 total
time=
       3.5s
[CV 5/5; 310/400] START bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=66
[CV 1/5; 308/400] END bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198;, score=0.422 total
[CV 1/5; 311/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=56
[CV 2/5; 308/400] END bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198;, score=0.394 total
time=
       2.3s
```

```
[CV 2/5; 311/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=56
[CV 3/5; 308/400] END bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198;, score=0.377 total
time= 2.3s
[CV 3/5; 311/400] START bootstrap=True, max_depth=17, max_features=None,
min samples leaf=1, min samples split=4, n estimators=56
[CV 5/5; 308/400] END bootstrap=True, max_depth=8, max_features=None,
min samples leaf=2, min samples split=5, n estimators=198;, score=0.404 total
time=
      2.3s
[CV 4/5; 311/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=56
[CV 4/5; 308/400] END bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=198;, score=0.391 total
[CV 5/5; 311/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=56
[CV 2/5; 310/400] END bootstrap=False, max depth=15, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=66;, score=0.392 total
time=
      1.9s
[CV 1/5; 312/400] START bootstrap=True, max depth=19, max features=None,
min samples leaf=1, min samples split=4, n estimators=96
[CV 1/5; 310/400] END bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=66;, score=0.414 total
time= 2.0s
[CV 2/5; 312/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=96
[CV 3/5; 310/400] END bootstrap=False, max depth=15, max features=None,
min samples leaf=1, min samples split=5, n estimators=66;, score=0.388 total
time=
       2.0s
[CV 3/5; 312/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=96
[CV 4/5; 310/400] END bootstrap=False, max depth=15, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=66;, score=0.370 total
time= 2.1s
[CV 5/5; 310/400] END bootstrap=False, max depth=15, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=66;, score=0.394 total
time=
      1.9s
[CV 4/5; 312/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=96
[CV 5/5; 312/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=96
[CV 1/5; 311/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=1, min samples split=4, n estimators=56;, score=0.431 total
time=
      1.1s
[CV 1/5; 313/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=86
[CV 2/5; 311/400] END bootstrap=True, max_depth=17, max_features=None,
```

```
min samples leaf=1, min samples split=4, n estimators=56;, score=0.394 total
time=
      1.1s
[CV 2/5; 313/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=86
[CV 3/5; 311/400] END bootstrap=True, max depth=17, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=56;, score=0.427 total
time= 1.2s
[CV 3/5; 313/400] START bootstrap=True, max depth=12, max features=sqrt,
min samples leaf=3, min samples split=7, n estimators=86
[CV 1/5; 313/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=3, min samples split=7, n estimators=86;, score=0.438 total
time=
       0.5s
[CV 4/5; 313/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=86
[CV 4/5; 311/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=1, min samples split=4, n estimators=56;, score=0.401 total
time=
      1.1s
[CV 5/5; 313/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=86
[CV 2/5; 313/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=86;, score=0.394 total
time= 0.5s
[CV 1/5; 314/400] START bootstrap=True, max_depth=18, max_features=None,
min samples leaf=2, min samples split=7, n estimators=40
[CV 5/5; 311/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=1, min samples split=4, n estimators=56;, score=0.446 total
time=
      1.2s
[CV 2/5; 314/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=40
[CV 3/5; 313/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=3, min samples split=7, n estimators=86;, score=0.412 total
time= 0.5s
[CV 3/5; 314/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=40
[CV 4/5; 313/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=86;, score=0.399 total
time= 0.4s
[CV 4/5; 314/400] START bootstrap=True, max depth=18, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=40
[CV 5/5; 313/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=86;, score=0.412 total
      0.4s
time=
[CV 5/5; 314/400] START bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=40
[CV 2/5; 314/400] END bootstrap=True, max_depth=18, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=40;, score=0.390 total
time=
      0.8s
[CV 1/5; 315/400] START bootstrap=True, max_depth=None, max_features=sqrt,
```

```
min_samples_leaf=3, min_samples_split=3, n_estimators=28
[CV 1/5; 314/400] END bootstrap=True, max_depth=18, max_features=None,
min samples leaf=2, min samples split=7, n estimators=40;, score=0.436 total
time= 0.8s
[CV 2/5; 315/400] START bootstrap=True, max depth=None, max features=sqrt,
min samples leaf=3, min samples split=3, n estimators=28
[CV 2/5; 312/400] END bootstrap=True, max depth=19, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=96;, score=0.399 total
time=
       2.0s
[CV 3/5; 315/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=28
[CV 2/5; 315/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min samples leaf=3, min samples split=3, n estimators=28;, score=0.388 total
time=
       0.2s
[CV 1/5; 312/400] END bootstrap=True, max_depth=19, max_features=None,
min samples leaf=1, min samples split=4, n estimators=96;, score=0.417 total
time=
       2.1s
[CV 4/5; 315/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=28
[CV 5/5; 315/400] START bootstrap=True, max depth=None, max features=sqrt,
min samples leaf=3, min samples split=3, n estimators=28
[CV 1/5; 315/400] END bootstrap=True, max depth=None, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=28;, score=0.410 total
time=
      0.2s
[CV 1/5; 316/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=84
[CV 4/5; 314/400] END bootstrap=True, max_depth=18, max_features=None,
min samples leaf=2, min samples split=7, n estimators=40;, score=0.383 total
[CV 2/5; 316/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=84
[CV 5/5; 314/400] END bootstrap=True, max_depth=18, max_features=None,
min samples leaf=2, min samples split=7, n estimators=40;, score=0.449 total
time=
      0.8s
[CV 3/5; 316/400] START bootstrap=True, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=84
[CV 3/5; 312/400] END bootstrap=True, max depth=19, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=96;, score=0.410 total
time=
       2.0s
[CV 4/5; 316/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=84
[CV 3/5; 314/400] END bootstrap=True, max_depth=18, max_features=None,
min samples leaf=2, min samples split=7, n estimators=40;, score=0.417 total
time=
       0.8s
[CV 5/5; 316/400] START bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=84
[CV 4/5; 315/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min samples leaf=3, min samples split=3, n estimators=28;, score=0.383 total
```

```
0.2s
time=
[CV 3/5; 315/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min samples leaf=3, min samples split=3, n estimators=28;, score=0.399 total
time= 0.2s
[CV 1/5; 317/400] START bootstrap=True, max depth=18, max features=sqrt,
min samples leaf=2, min samples split=8, n estimators=160
[CV 5/5; 315/400] END bootstrap=True, max depth=None, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=28;, score=0.419 total
time=
      0.2s
[CV 2/5; 317/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=160
[CV 3/5; 317/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=160
[CV 5/5; 312/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=96;, score=0.430 total
time=
      2.0s
[CV 4/5; 312/400] END bootstrap=True, max_depth=19, max_features=None,
min samples leaf=1, min samples split=4, n estimators=96;, score=0.390 total
time=
      2.1s
[CV 4/5; 317/400] START bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=160
[CV 5/5; 317/400] START bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=160
[CV 3/5; 317/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=160;, score=0.412 total
time=
       1.1s
[CV 1/5; 318/400] START bootstrap=True, max depth=7, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=58
[CV 1/5; 317/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=160;, score=0.442 total
time=
      1.1s
[CV 2/5; 318/400] START bootstrap=True, max_depth=7, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=58
[CV 4/5; 317/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min samples leaf=2, min samples split=8, n estimators=160;, score=0.401 total
time= 1.0s
[CV 2/5; 317/400] END bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=160;, score=0.390 total
time= 1.1s
[CV 4/5; 318/400] START bootstrap=True, max_depth=7, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=58
[CV 3/5; 318/400] START bootstrap=True, max depth=7, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=58
[CV 5/5; 317/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=160;, score=0.419 total
[CV 5/5; 318/400] START bootstrap=True, max_depth=7, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=58
```

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[CV 4/5; 318/400] END bootstrap=True, max depth=7, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=58;, score=0.385 total
time=
      0.2s
[CV 1/5; 318/400] END bootstrap=True, max_depth=7, max_features=sqrt,
min samples leaf=3, min samples split=7, n estimators=58;, score=0.420 total
time=
      0.2s
[CV 1/5; 319/400] START bootstrap=False, max depth=13, max features=None,
min samples leaf=2, min samples split=8, n estimators=64
[CV 2/5; 318/400] END bootstrap=True, max depth=7, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=58;, score=0.374 total
time= 0.2s
[CV 2/5; 319/400] START bootstrap=False, max depth=13, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=64
[CV 3/5; 319/400] START bootstrap=False, max depth=13, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=64
[CV 3/5; 318/400] END bootstrap=True, max_depth=7, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=58;, score=0.364 total
time= 0.2s
[CV 4/5; 319/400] START bootstrap=False, max_depth=13, max_features=None,
min samples leaf=2, min samples split=8, n estimators=64
[CV 5/5; 318/400] END bootstrap=True, max depth=7, max features=sqrt,
min samples leaf=3, min samples split=7, n estimators=58;, score=0.391 total
      0.2s
[CV 1/5; 316/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=84;, score=0.433 total
time=
      1.6s
[CV 5/5; 319/400] START bootstrap=False, max depth=13, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=64
[CV 1/5; 320/400] START bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=148
[CV 2/5; 316/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=84;, score=0.420 total
time=
      1.6s
[CV 5/5; 316/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=2, min samples split=8, n estimators=84;, score=0.438 total
time= 1.6s
[CV 2/5; 320/400] START bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=148
[CV 3/5; 320/400] START bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=148
[CV 3/5; 316/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=2, min samples split=8, n estimators=84;, score=0.435 total
[CV 4/5; 320/400] START bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=148
[CV 4/5; 316/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=84;, score=0.391 total
time=
      1.7s
```

```
[CV 5/5; 320/400] START bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=148
[CV 2/5; 319/400] END bootstrap=False, max depth=13, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=64;, score=0.377 total
time= 1.7s
[CV 1/5; 321/400] START bootstrap=True, max depth=15, max features=sqrt,
min samples leaf=3, min samples split=2, n estimators=118
[CV 3/5; 319/400] END bootstrap=False, max_depth=13, max_features=None,
min samples leaf=2, min samples split=8, n estimators=64;, score=0.396 total
time=
      1.7s
[CV 2/5; 321/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=118
[CV 1/5; 319/400] END bootstrap=False, max depth=13, max features=None,
min samples leaf=2, min samples split=8, n estimators=64;, score=0.431 total
[CV 3/5; 321/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=118
[CV 5/5; 320/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=148;, score=0.405 total
time=
      1.4s
[CV 1/5; 320/400] END bootstrap=False, max depth=19, max features=sqrt,
min samples leaf=3, min samples split=2, n estimators=148;, score=0.422 total
time= 1.6s
[CV 4/5; 321/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=118[CV 5/5; 321/400] START
bootstrap=True, max depth=15, max_features=sqrt, min_samples_leaf=3,
min_samples_split=2, n_estimators=118
[CV 3/5; 320/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=148;, score=0.395 total
time=
      1.6s
[CV 2/5; 320/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=148;, score=0.402 total
time=
      1.6s
[CV 4/5; 320/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=148;, score=0.392 total
time= 1.5s
[CV 2/5; 322/400] START bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=8
[CV 1/5; 322/400] START bootstrap=False, max_depth=16, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=8
[CV 3/5; 322/400] START bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=8
[CV 5/5; 319/400] END bootstrap=False, max depth=13, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=64;, score=0.385 total
[CV 4/5; 322/400] START bootstrap=False, max_depth=16, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=8
```

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[CV 2/5; 322/400] END bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=8;, score=0.398 total
time=
      0.1s
[CV 5/5; 322/400] START bootstrap=False, max_depth=16, max_features=sqrt,
min samples leaf=2, min samples split=9, n estimators=8
[CV 4/5; 319/400] END bootstrap=False, max depth=13, max features=None,
min samples leaf=2, min samples split=8, n estimators=64;, score=0.385 total
time= 1.9s
[CV 1/5; 323/400] START bootstrap=True, max depth=19, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=160
[CV 3/5; 322/400] END bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=8;, score=0.406 total
time=
      0.1s
[CV 2/5; 323/400] START bootstrap=True, max depth=19, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=160
[CV 1/5; 322/400] END bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=8;, score=0.432 total
time= 0.1s
[CV 3/5; 323/400] START bootstrap=True, max_depth=19, max_features=None,
min samples leaf=3, min samples split=7, n estimators=160
[CV 4/5; 322/400] END bootstrap=False, max depth=16, max features=sqrt,
min samples leaf=2, min samples split=9, n estimators=8;, score=0.396 total
time= 0.1s
[CV 4/5; 323/400] START bootstrap=True, max depth=19, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=160
[CV 5/5; 322/400] END bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=8;, score=0.401 total
time=
      0.1s
[CV 5/5; 323/400] START bootstrap=True, max depth=19, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=160
[CV 3/5; 321/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=118;, score=0.392 total
time=
      0.7s
[CV 1/5; 324/400] START bootstrap=False, max_depth=None, max_features=None,
min samples leaf=1, min samples split=6, n estimators=90
[CV 2/5; 321/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min samples leaf=3, min samples split=2, n estimators=118;, score=0.392 total
time=
      0.7s
[CV 2/5; 324/400] START bootstrap=False, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=90
[CV 1/5; 321/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=118;, score=0.450 total
      0.8s
[CV 3/5; 324/400] START bootstrap=False, max depth=None, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=90
[CV 5/5; 321/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=118;, score=0.408 total
```

time=

0.7s

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[CV 4/5; 324/400] START bootstrap=False, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=90
[CV 4/5; 321/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=118;, score=0.407 total
time= 0.8s
[CV 5/5; 324/400] START bootstrap=False, max depth=None, max features=None,
min samples leaf=1, min samples split=6, n estimators=90
[CV 4/5; 323/400] END bootstrap=True, max_depth=19, max_features=None,
min samples leaf=3, min samples split=7, n estimators=160;, score=0.399 total
time=
      3.1s
[CV 1/5; 325/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24
[CV 3/5; 323/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=160;, score=0.399 total
[CV 2/5; 325/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24
[CV 1/5; 323/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=160;, score=0.422 total
time=
      3.2s
[CV 3/5; 325/400] START bootstrap=True, max depth=16, max features=sqrt,
min samples leaf=1, min samples split=7, n estimators=24
[CV 2/5; 323/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=160;, score=0.399 total
time= 3.2s
[CV 4/5; 325/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24
[CV 5/5; 323/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=160;, score=0.429 total
time=
       3.1s
[CV 5/5; 325/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24
[CV 1/5; 325/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24;, score=0.424 total
time= 0.2s
[CV 1/5; 326/400] START bootstrap=True, max depth=14, max features=sqrt,
min samples leaf=1, min samples split=6, n estimators=178
[CV 4/5; 325/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24;, score=0.368 total
time= 0.1s
[CV 2/5; 326/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=178
[CV 3/5; 325/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min samples leaf=1, min samples split=7, n estimators=24;, score=0.398 total
time=
       0.2s
[CV 3/5; 326/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=178
[CV 5/5; 325/400] END bootstrap=True, max_depth=16, max_features=sqrt,
```

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min samples leaf=1, min samples split=7, n estimators=24;, score=0.415 total
time=
      0.1s
[CV 4/5; 326/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=178
[CV 2/5; 325/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24;, score=0.395 total
time= 0.2s
[CV 5/5; 326/400] START bootstrap=True, max depth=14, max features=sqrt,
min samples leaf=1, min samples split=6, n estimators=178
[CV 2/5; 324/400] END bootstrap=False, max_depth=None, max_features=None,
min samples leaf=1, min samples split=6, n estimators=90;, score=0.390 total
time=
       3.5s
[CV 1/5; 327/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=70
[CV 4/5; 324/400] END bootstrap=False, max_depth=None, max_features=None,
min samples leaf=1, min samples split=6, n estimators=90;, score=0.348 total
time=
       3.5s
[CV 2/5; 327/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=70
[CV 5/5; 324/400] END bootstrap=False, max depth=None, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=90;, score=0.390 total
time=
       3.6s
[CV 3/5; 327/400] START bootstrap=True, max depth=20, max features=sqrt,
min samples leaf=1, min samples split=6, n estimators=70
[CV 1/5; 324/400] END bootstrap=False, max_depth=None, max_features=None,
min samples leaf=1, min samples split=6, n estimators=90;, score=0.368 total
time=
      3.8s
[CV 4/5; 327/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=70
[CV 2/5; 326/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=178;, score=0.409 total
time= 1.0s
[CV 5/5; 327/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=70
[CV 1/5; 326/400] END bootstrap=True, max depth=14, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=178;, score=0.433 total
time= 1.0s
[CV 1/5; 328/400] START bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=156
[CV 5/5; 326/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=178;, score=0.416 total
      1.0s
time=
[CV 2/5; 328/400] START bootstrap=False, max depth=11, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=156
[CV 4/5; 326/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=178;, score=0.376 total
time=
      1.0s
```

[CV 3/5; 328/400] START bootstrap=False, max depth=11, max features=sqrt,

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min_samples_leaf=2, min_samples_split=3, n_estimators=156
[CV 3/5; 326/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=178;, score=0.394 total
time= 1.1s
[CV 4/5; 328/400] START bootstrap=False, max depth=11, max features=sqrt,
min samples leaf=2, min samples split=3, n estimators=156[CV 1/5; 327/400] END
bootstrap=True, max depth=20, max features=sqrt, min samples leaf=1,
min_samples_split=6, n_estimators=70;, score=0.420 total time=
[CV 5/5; 328/400] START bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=156
[CV 2/5; 327/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=70;, score=0.388 total
time=
      0.5s
[CV 1/5; 329/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=78
[CV 3/5; 327/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=70;, score=0.414 total
time=
      0.5s
[CV 2/5; 329/400] START bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=78
[CV 3/5; 324/400] END bootstrap=False, max depth=None, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=90;, score=0.342 total
time=
      4.3s
[CV 4/5; 327/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=70;, score=0.387 total
time=
      0.5s
[CV 3/5; 329/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=78
[CV 4/5; 329/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=78
[CV 5/5; 327/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=70;, score=0.416 total
time=
      0.5s
[CV 5/5; 329/400] START bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=78
[CV 1/5; 329/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=78;, score=0.431 total
time= 0.5s
[CV 1/5; 330/400] START bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=12
[CV 2/5; 329/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min samples leaf=2, min samples split=4, n estimators=78;, score=0.402 total
time=
      0.5s
[CV 2/5; 330/400] START bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=12
[CV 3/5; 329/400] END bootstrap=True, max_depth=16, max_features=sqrt,
```

min samples leaf=2, min samples split=4, n estimators=78;, score=0.410 total

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0.5s
time=
[CV 3/5; 330/400] START bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=12
[CV 4/5; 329/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min samples leaf=2, min samples split=4, n estimators=78;, score=0.391 total
       0.5s
time=
[CV 1/5; 330/400] END bootstrap=True, max depth=11, max features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=12;, score=0.432 total
      0.2s
[CV 4/5; 330/400] START bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=12
[CV 5/5; 330/400] START bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=12
[CV 5/5; 329/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=78;, score=0.440 total
time=
      0.6s
[CV 1/5; 331/400] START bootstrap=True, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=138
[CV 2/5; 330/400] END bootstrap=True, max_depth=11, max_features=None,
min samples leaf=3, min samples split=4, n estimators=12;, score=0.384 total
time= 0.2s
[CV 2/5; 331/400] START bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=138
[CV 3/5; 330/400] END bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=12;, score=0.409 total
time=
       0.2s
[CV 3/5; 331/400] START bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=138
[CV 5/5; 330/400] END bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=12;, score=0.418 total
time=
      0.2s
[CV 4/5; 331/400] START bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=138
[CV 4/5; 330/400] END bootstrap=True, max_depth=11, max_features=None,
min samples leaf=3, min samples split=4, n estimators=12;, score=0.391 total
time= 0.2s
[CV 5/5; 331/400] START bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=138
[CV 2/5; 328/400] END bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=156;, score=0.405 total
time=
      1.2s
[CV 1/5; 332/400] START bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=90
[CV 3/5; 328/400] END bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=156;, score=0.370 total
[CV 2/5; 332/400] START bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=90
```

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[CV 1/5; 328/400] END bootstrap=False, max depth=11, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=156;, score=0.406 total
time=
      1.3s
[CV 3/5; 332/400] START bootstrap=False, max_depth=17, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=90
[CV 4/5; 328/400] END bootstrap=False, max depth=11, max features=sqrt,
min samples leaf=2, min samples split=3, n estimators=156;, score=0.370 total
time=
      1.3s
[CV 4/5; 332/400] START bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=90
[CV 5/5; 328/400] END bootstrap=False, max_depth=11, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=156;, score=0.402 total
time=
      1.3s
[CV 5/5; 332/400] START bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=90
[CV 1/5; 331/400] END bootstrap=True, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=138;, score=0.433 total
time= 0.6s
[CV 1/5; 333/400] START bootstrap=False, max_depth=11, max_features=None,
min samples leaf=1, min samples split=2, n estimators=66
[CV 2/5; 331/400] END bootstrap=True, max depth=8, max features=sqrt,
min samples leaf=3, min samples split=7, n estimators=138;, score=0.385 total
time= 0.6s
[CV 2/5; 333/400] START bootstrap=False, max depth=11, max features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=66
[CV 5/5; 331/400] END bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=138;, score=0.411 total
time=
      0.5s
[CV 3/5; 333/400] START bootstrap=False, max depth=11, max features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=66
[CV 3/5; 331/400] END bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=138;, score=0.369 total
time=
      0.6s
[CV 4/5; 333/400] START bootstrap=False, max_depth=11, max_features=None,
min samples leaf=1, min samples split=2, n estimators=66
[CV 4/5; 331/400] END bootstrap=True, max_depth=8, max_features=sqrt,
min samples leaf=3, min samples split=7, n estimators=138;, score=0.399 total
time=
      0.6s
[CV 5/5; 333/400] START bootstrap=False, max_depth=11, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=66
[CV 1/5; 332/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=90;, score=0.432 total
      1.0s
[CV 1/5; 334/400] START bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=36
[CV 2/5; 332/400] END bootstrap=False, max depth=17, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=90;, score=0.396 total
time=
      1.0s
```

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[CV 2/5; 334/400] START bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=36
[CV 3/5; 332/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=90;, score=0.380 total
time= 1.0s
[CV 3/5; 334/400] START bootstrap=False, max depth=14, max features=sqrt,
min samples leaf=3, min samples split=6, n estimators=36
[CV 5/5; 332/400] END bootstrap=False, max_depth=17, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=90;, score=0.411 total
time=
      0.9s
[CV 4/5; 334/400] START bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=36
[CV 4/5; 332/400] END bootstrap=False, max depth=17, max features=sqrt,
min samples leaf=1, min samples split=6, n estimators=90;, score=0.385 total
[CV 5/5; 334/400] START bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=36
[CV 2/5; 334/400] END bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=36;, score=0.414 total
time=
      0.3s
[CV 1/5; 334/400] END bootstrap=False, max depth=14, max features=sqrt,
min samples leaf=3, min samples split=6, n estimators=36;, score=0.442 total
time= 0.4s
[CV 2/5; 335/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=166
[CV 1/5; 335/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=166
[CV 3/5; 334/400] END bootstrap=False, max depth=14, max features=sqrt,
min samples leaf=3, min samples split=6, n estimators=36;, score=0.379 total
time=
      0.3s
[CV 3/5; 335/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=166
[CV 4/5; 334/400] END bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=36;, score=0.401 total
time= 0.4s
[CV 4/5; 335/400] START bootstrap=True, max depth=15, max features=sqrt,
min samples leaf=1, min samples split=9, n estimators=166
[CV 5/5; 334/400] END bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=36;, score=0.386 total
time=
      0.3s
[CV 5/5; 335/400] START bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=166
[CV 2/5; 333/400] END bootstrap=False, max depth=11, max features=None,
min samples leaf=1, min samples split=2, n estimators=66;, score=0.379 total
time=
      1.5s
[CV 1/5; 333/400] END bootstrap=False, max_depth=11, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=66;, score=0.390 total
time=
       1.6s
```

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[CV 1/5; 336/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=28
[CV 2/5; 336/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=28
[CV 4/5; 333/400] END bootstrap=False, max depth=11, max features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=66;, score=0.362 total
time= 1.6s
[CV 5/5; 333/400] END bootstrap=False, max depth=11, max features=None,
min samples leaf=1, min samples split=2, n estimators=66;, score=0.430 total
time=
      1.6s
[CV 3/5; 336/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=28
[CV 4/5; 336/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=28
[CV 3/5; 333/400] END bootstrap=False, max_depth=11, max_features=None,
min samples leaf=1, min samples split=2, n estimators=66;, score=0.348 total
time=
      1.7s
[CV 5/5; 336/400] START bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=28
[CV 1/5; 336/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=28;, score=0.407 total
time= 0.2s
[CV 1/5; 337/400] START bootstrap=False, max_depth=10, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=48
[CV 2/5; 336/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min samples leaf=1, min samples split=4, n estimators=28;, score=0.398 total
time=
      0.2s
[CV 2/5; 337/400] START bootstrap=False, max depth=10, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=48
[CV 2/5; 335/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=166;, score=0.405 total
[CV 3/5; 336/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=28;, score=0.374 total
time= 0.2s
[CV 3/5; 337/400] START bootstrap=False, max depth=10, max features=None,
min samples leaf=1, min samples split=5, n estimators=48
[CV 4/5; 337/400] START bootstrap=False, max depth=10, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=48
[CV 1/5; 335/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=166;, score=0.436 total
      1.0s
time=
[CV 5/5; 336/400] END bootstrap=False, max depth=10, max features=sqrt,
min samples leaf=1, min samples split=4, n estimators=28;, score=0.371 total
time=
      0.2s
[CV 5/5; 337/400] START bootstrap=False, max depth=10, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=48
[CV 1/5; 338/400] START bootstrap=False, max_depth=19, max_features=sqrt,
```

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min_samples_leaf=2, min_samples_split=9, n_estimators=22
[CV 4/5; 336/400] END bootstrap=False, max depth=10, max features=sqrt,
min samples leaf=1, min samples split=4, n estimators=28;, score=0.387 total
time= 0.3s
[CV 2/5; 338/400] START bootstrap=False, max depth=19, max features=sqrt,
min samples leaf=2, min samples split=9, n estimators=22
[CV 3/5; 335/400] END bootstrap=True, max depth=15, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=166;, score=0.406 total
time=
      1.1s
[CV 3/5; 338/400] START bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=22
[CV 4/5; 335/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=166;, score=0.396 total
time=
      1.0s
[CV 4/5; 338/400] START bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=22
[CV 5/5; 335/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=166;, score=0.433 total
time=
      1.0s
[CV 5/5; 338/400] START bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=22
[CV 2/5; 338/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=22;, score=0.405 total
time=
      0.2s
[CV 1/5; 339/400] START bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=86
[CV 1/5; 338/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min samples leaf=2, min samples split=9, n estimators=22;, score=0.433 total
[CV 2/5; 339/400] START bootstrap=False, max depth=13, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=86
[CV 4/5; 338/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min samples leaf=2, min samples split=9, n estimators=22;, score=0.365 total
time=
      0.2s
[CV 3/5; 338/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=22;, score=0.370 total
time= 0.3s
[CV 3/5; 339/400] START bootstrap=False, max depth=13, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=86
[CV 4/5; 339/400] START bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=86
[CV 5/5; 338/400] END bootstrap=False, max depth=19, max features=sqrt,
min samples leaf=2, min samples split=9, n estimators=22;, score=0.393 total
time=
      0.2s
[CV 5/5; 339/400] START bootstrap=False, max depth=13, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=86
[CV 1/5; 337/400] END bootstrap=False, max_depth=10, max_features=None,
```

min samples leaf=1, min samples split=5, n estimators=48;, score=0.391 total

time= 1.2s [CV 1/5; 340/400] START bootstrap=True, max\_depth=12, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=9, n\_estimators=130 [CV 2/5; 337/400] END bootstrap=False, max\_depth=10, max\_features=None, min samples leaf=1, min samples split=5, n estimators=48;, score=0.377 total 1.2s time= [CV 4/5; 337/400] END bootstrap=False, max depth=10, max features=None, min\_samples\_leaf=1, min\_samples\_split=5, n\_estimators=48;, score=0.355 total 1.1s[CV 5/5; 337/400] END bootstrap=False, max\_depth=10, max\_features=None, min samples leaf=1, min samples split=5, n estimators=48;, score=0.360 total [CV 2/5; 340/400] START bootstrap=True, max\_depth=12, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=9, n\_estimators=130 [CV 3/5; 340/400] START bootstrap=True, max\_depth=12, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=9, n\_estimators=130 [CV 4/5; 340/400] START bootstrap=True, max\_depth=12, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=9, n\_estimators=130 [CV 3/5; 337/400] END bootstrap=False, max\_depth=10, max\_features=None, min samples leaf=1, min samples split=5, n estimators=48;, score=0.346 total time= 1.2s [CV 5/5; 340/400] START bootstrap=True, max depth=12, max features=None, min\_samples\_leaf=3, min\_samples\_split=9, n\_estimators=130 [CV 2/5; 339/400] END bootstrap=False, max\_depth=13, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=9, n\_estimators=86;, score=0.377 total time= 2.2s [CV 1/5; 341/400] START bootstrap=True, max\_depth=None, max\_features=None, min\_samples\_leaf=1, min\_samples\_split=3, n\_estimators=160 [CV 1/5; 339/400] END bootstrap=False, max depth=13, max features=None, min\_samples\_leaf=3, min\_samples\_split=9, n\_estimators=86;, score=0.433 total time= 2.3s [CV 2/5; 341/400] START bootstrap=True, max\_depth=None, max\_features=None, min\_samples\_leaf=1, min\_samples\_split=3, n\_estimators=160 [CV 4/5; 339/400] END bootstrap=False, max\_depth=13, max\_features=None, min samples leaf=3, min samples split=9, n estimators=86;, score=0.385 total 2.2s time= [CV 3/5; 341/400] START bootstrap=True, max depth=None, max features=None, min\_samples\_leaf=1, min\_samples\_split=3, n\_estimators=160 [CV 5/5; 339/400] END bootstrap=False, max\_depth=13, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=9, n\_estimators=86;, score=0.389 total time= 2.2s [CV 4/5; 341/400] START bootstrap=True, max\_depth=None, max\_features=None, min\_samples\_leaf=1, min\_samples\_split=3, n\_estimators=160 [CV 3/5; 339/400] END bootstrap=False, max\_depth=13, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=9, n\_estimators=86;, score=0.395 total [CV 5/5; 341/400] START bootstrap=True, max\_depth=None, max\_features=None,

min\_samples\_leaf=1, min\_samples\_split=3, n\_estimators=160

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[CV 3/5; 340/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=130;, score=0.401 total
time=
      1.8s
[CV 1/5; 342/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=3, min samples split=2, n estimators=36
[CV 1/5; 340/400] END bootstrap=True, max_depth=12, max_features=None,
min samples leaf=3, min samples split=9, n estimators=130;, score=0.442 total
time=
       2.1s
[CV 2/5; 342/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=36
[CV 2/5; 340/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=130;, score=0.388 total
time=
       2.1s
[CV 4/5; 340/400] END bootstrap=True, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=130;, score=0.406 total
time=
      2.0s
[CV 1/5; 342/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=3, min samples split=2, n estimators=36;, score=0.396 total
time=
      0.2s
[CV 3/5; 342/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=36
[CV 4/5; 342/400] START bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=36
[CV 5/5; 342/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=36
[CV 5/5; 340/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=130;, score=0.430 total
time=
       2.1s
[CV 1/5; 343/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=184
[CV 2/5; 342/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=36;, score=0.392 total
time=
      0.2s
[CV 2/5; 343/400] START bootstrap=True, max_depth=10, max_features=None,
min samples leaf=3, min samples split=9, n estimators=184
[CV 3/5; 342/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=3, min samples split=2, n estimators=36;, score=0.368 total
time=
      0.2s
[CV 5/5; 342/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=36;, score=0.387 total
time=
      0.2s
[CV 3/5; 343/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=184
[CV 4/5; 342/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=36;, score=0.379 total
[CV 4/5; 343/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=184
```

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[CV 5/5; 343/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=184
[CV 1/5; 343/400] END bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=184;, score=0.432 total
time= 2.5s
[CV 1/5; 344/400] START bootstrap=False, max depth=11, max features=None,
min samples leaf=2, min samples split=3, n estimators=196
[CV 2/5; 343/400] END bootstrap=True, max_depth=10, max_features=None,
min samples leaf=3, min samples split=9, n estimators=184;, score=0.394 total
time=
      2.5s
[CV 2/5; 344/400] START bootstrap=False, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=196
[CV 4/5; 343/400] END bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=184;, score=0.407 total
[CV 3/5; 344/400] START bootstrap=False, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=196
[CV 5/5; 343/400] END bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=184;, score=0.423 total
time=
      2.4s
[CV 4/5; 344/400] START bootstrap=False, max depth=11, max features=None,
min samples leaf=2, min samples split=3, n estimators=196
[CV 3/5; 343/400] END bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=184;, score=0.394 total
time=
       2.6s
[CV 5/5; 344/400] START bootstrap=False, max_depth=11, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=196
[CV 2/5; 341/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=160;, score=0.379 total
time=
       3.6s
[CV 1/5; 345/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=106
[CV 1/5; 341/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=160;, score=0.405 total
time=
      3.7s
[CV 2/5; 345/400] START bootstrap=True, max depth=14, max features=None,
min samples leaf=2, min samples split=3, n estimators=106
[CV 5/5; 341/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=160;, score=0.433 total
      3.6s
[CV 4/5; 341/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=160;, score=0.402 total
[CV 3/5; 345/400] START bootstrap=True, max depth=14, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=106
[CV 4/5; 345/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=106
[CV 3/5; 341/400] END bootstrap=True, max_depth=None, max_features=None,
```

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min_samples_leaf=1, min_samples_split=3, n_estimators=160;, score=0.409 total
time=
      4.0s
[CV 5/5; 345/400] START bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=106
[CV 1/5; 345/400] END bootstrap=True, max depth=14, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=106;, score=0.438 total
time= 1.9s
[CV 1/5; 346/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=2, min samples split=3, n estimators=130
[CV 2/5; 345/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=106;, score=0.398 total
       1.8s
[CV 2/5; 346/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=130
[CV 4/5; 345/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=106;, score=0.401 total
time=
      1.8s
[CV 3/5; 346/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=130
[CV 3/5; 345/400] END bootstrap=True, max depth=14, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=106;, score=0.406 total
time= 1.8s
[CV 4/5; 346/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=2, min samples split=3, n estimators=130
[CV 5/5; 345/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=106;, score=0.422 total
time=
      1.8s
[CV 5/5; 346/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=130
[CV 1/5; 346/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=130;, score=0.435 total
      0.7s
[CV 1/5; 347/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=48
[CV 3/5; 346/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=130;, score=0.396 total
time= 0.6s
[CV 2/5; 346/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=130;, score=0.399 total
time= 0.7s
[CV 3/5; 347/400] START bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=48
[CV 2/5; 347/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=48
[CV 4/5; 346/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=130;, score=0.379 total
time=
      0.7s
[CV 4/5; 347/400] START bootstrap=False, max depth=18, max features=None,
```

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min_samples_leaf=3, min_samples_split=9, n_estimators=48
[CV 5/5; 346/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=130;, score=0.415 total
time= 0.7s
[CV 5/5; 347/400] START bootstrap=False, max depth=18, max features=None,
min samples leaf=3, min samples split=9, n estimators=48
[CV 1/5; 344/400] END bootstrap=False, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=196;, score=0.390 total
time=
      4.5s
[CV 1/5; 348/400] START bootstrap=False, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=8
[CV 1/5; 347/400] END bootstrap=False, max depth=18, max features=None,
min samples leaf=3, min samples split=9, n estimators=48;, score=0.424 total
time=
      1.6s
[CV 2/5; 348/400] START bootstrap=False, max depth=19, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=8
[CV 2/5; 347/400] END bootstrap=False, max_depth=18, max_features=None,
min samples leaf=3, min samples split=9, n estimators=48;, score=0.401 total
time=
      1.6s
[CV 3/5; 348/400] START bootstrap=False, max depth=19, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=8
[CV 3/5; 347/400] END bootstrap=False, max depth=18, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=48;, score=0.391 total
time=
      1.6s
[CV 4/5; 348/400] START bootstrap=False, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=8
[CV 1/5; 348/400] END bootstrap=False, max depth=19, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=8;, score=0.398 total
[CV 4/5; 347/400] END bootstrap=False, max depth=18, max features=None,
min samples leaf=3, min samples split=9, n estimators=48;, score=0.395 total
time= 1.6s
[CV 5/5; 348/400] START bootstrap=False, max depth=19, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=8
[CV 1/5; 349/400] START bootstrap=True, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=40
[CV 4/5; 344/400] END bootstrap=False, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=196;, score=0.366 total
time= 4.7s
[CV 2/5; 349/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=40
[CV 2/5; 344/400] END bootstrap=False, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=196;, score=0.374 total
time=
      4.8s
[CV 3/5; 349/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=40
[CV 2/5; 348/400] END bootstrap=False, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=8;, score=0.418 total
```

```
time=
        0.3s
[CV 4/5; 349/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=40
[CV 3/5; 344/400] END bootstrap=False, max_depth=11, max_features=None,
min samples leaf=2, min samples split=3, n estimators=196;, score=0.351 total
       4.9s
time=
[CV 5/5; 349/400] START bootstrap=True, max depth=12, max features=None,
min samples leaf=1, min samples split=9, n estimators=40
[CV 5/5; 344/400] END bootstrap=False, max depth=11, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=196;, score=0.440 total
time= 4.8s
[CV 5/5; 348/400] END bootstrap=False, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=8;, score=0.426 total
time=
      0.3s
[CV 3/5; 348/400] END bootstrap=False, max depth=19, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=8;, score=0.391 total
time=
      0.3s
[CV 1/5; 350/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=38
[CV 2/5; 350/400] START bootstrap=True, max depth=19, max features=None,
min samples leaf=3, min samples split=2, n estimators=38
[CV 5/5; 347/400] END bootstrap=False, max depth=18, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=48;, score=0.411 total
time=
      1.6s
[CV 3/5; 350/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=38
[CV 4/5; 350/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=38
[CV 4/5; 348/400] END bootstrap=False, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=8;, score=0.387 total
time=
      0.3s
[CV 5/5; 350/400] START bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=38
[CV 1/5; 349/400] END bootstrap=True, max_depth=12, max_features=None,
min samples leaf=1, min samples split=9, n estimators=40;, score=0.447 total
time= 0.6s
[CV 1/5; 351/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=116
[CV 2/5; 349/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=40;, score=0.383 total
time=
      0.6s
[CV 2/5; 351/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=116
[CV 4/5; 349/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=40;, score=0.399 total
[CV 3/5; 351/400] START bootstrap=False, max_depth=12, max_features=None,
```

min\_samples\_leaf=3, min\_samples\_split=9, n\_estimators=116

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[CV 3/5; 349/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=40;, score=0.394 total
time=
      0.7s
[CV 4/5; 351/400] START bootstrap=False, max_depth=12, max_features=None,
min samples leaf=3, min samples split=9, n estimators=116
[CV 5/5; 349/400] END bootstrap=True, max_depth=12, max_features=None,
min samples leaf=1, min samples split=9, n estimators=40;, score=0.431 total
time= 0.6s
[CV 5/5; 351/400] START bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=116
[CV 2/5; 350/400] END bootstrap=True, max_depth=19, max_features=None,
min samples leaf=3, min samples split=2, n estimators=38;, score=0.394 total
time=
      0.8s
[CV 1/5; 352/400] START bootstrap=False, max depth=11, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=184
[CV 3/5; 350/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=38;, score=0.410 total
time= 0.8s
[CV 1/5; 350/400] END bootstrap=True, max_depth=19, max_features=None,
min samples leaf=3, min samples split=2, n estimators=38;, score=0.436 total
time= 0.8s
[CV 2/5; 352/400] START bootstrap=False, max depth=11, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=184
[CV 4/5; 350/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=38;, score=0.392 total
time=
      0.8s
[CV 3/5; 352/400] START bootstrap=False, max depth=11, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=184
[CV 4/5; 352/400] START bootstrap=False, max depth=11, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=184
[CV 5/5; 350/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=38;, score=0.449 total
time=
      0.8s
[CV 5/5; 352/400] START bootstrap=False, max_depth=11, max_features=None,
min samples leaf=1, min samples split=5, n estimators=184
[CV 1/5; 351/400] END bootstrap=False, max_depth=12, max_features=None,
min samples leaf=3, min samples split=9, n estimators=116;, score=0.425 total
time=
      3.0s
[CV 1/5; 353/400] START bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158
[CV 2/5; 351/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=116;, score=0.376 total
       2.9s
[CV 2/5; 353/400] START bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158
[CV 3/5; 351/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=116;, score=0.333 total
```

time=

3.0s

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[CV 3/5; 353/400] START bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158
[CV 5/5; 351/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=116;, score=0.383 total
time= 2.9s
[CV 4/5; 353/400] START bootstrap=True, max depth=13, max features=sqrt,
min samples leaf=1, min samples split=4, n estimators=158
[CV 4/5; 351/400] END bootstrap=False, max_depth=12, max_features=None,
min samples leaf=3, min samples split=9, n estimators=116;, score=0.370 total
time=
      3.1s
[CV 5/5; 353/400] START bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158
[CV 2/5; 353/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158;, score=0.392 total
       0.9s
[CV 1/5; 354/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=170
[CV 1/5; 353/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158;, score=0.421 total
time=
      0.9s
[CV 2/5; 354/400] START bootstrap=True, max depth=12, max features=None,
min samples leaf=2, min samples split=8, n estimators=170
[CV 3/5; 353/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158;, score=0.380 total
time= 0.9s
[CV 3/5; 354/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=170
[CV 4/5; 353/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158;, score=0.399 total
time=
      0.9s
[CV 4/5; 354/400] START bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=170
[CV 5/5; 353/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=158;, score=0.423 total
time= 0.9s
[CV 5/5; 354/400] START bootstrap=True, max depth=12, max features=None,
min samples leaf=2, min samples split=8, n estimators=170
[CV 4/5; 352/400] END bootstrap=False, max_depth=11, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=184;, score=0.365 total
      4.4s
[CV 1/5; 352/400] END bootstrap=False, max_depth=11, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=184;, score=0.394 total
[CV 1/5; 355/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=96
[CV 2/5; 355/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=96
[CV 2/5; 352/400] END bootstrap=False, max depth=11, max features=None,
```

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min_samples_leaf=1, min_samples_split=5, n_estimators=184;, score=0.380 total
time=
      4.5s
[CV 3/5; 355/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=96
[CV 3/5; 352/400] END bootstrap=False, max depth=11, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=184;, score=0.346 total
time= 4.5s
[CV 4/5; 355/400] START bootstrap=False, max depth=8, max features=sqrt,
min samples leaf=2, min samples split=6, n estimators=96
[CV 5/5; 352/400] END bootstrap=False, max_depth=11, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=184;, score=0.431 total
time=
       4.6s
[CV 5/5; 355/400] START bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=96
[CV 2/5; 355/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=2, min samples split=6, n estimators=96;, score=0.396 total
time=
      0.5s
[CV 1/5; 356/400] START bootstrap=False, max depth=13, max features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=102
[CV 1/5; 355/400] END bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=96;, score=0.424 total
time= 0.6s
[CV 2/5; 356/400] START bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=102
[CV 3/5; 355/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=2, min samples split=6, n estimators=96;, score=0.373 total
time=
      0.6s
[CV 3/5; 356/400] START bootstrap=False, max depth=13, max features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=102
[CV 4/5; 355/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=2, min samples split=6, n estimators=96;, score=0.381 total
time= 0.6s
[CV 4/5; 356/400] START bootstrap=False, max depth=13, max features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=102
[CV 5/5; 355/400] END bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=96;, score=0.393 total
time= 0.6s
[CV 5/5; 356/400] START bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=102
[CV 2/5; 354/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=170;, score=0.388 total
       2.6s
time=
[CV 1/5; 357/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100
[CV 1/5; 354/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=170;, score=0.438 total
time=
       2.7s
[CV 2/5; 357/400] START bootstrap=True, max_depth=12, max_features=sqrt,
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min_samples_leaf=3, min_samples_split=8, n_estimators=100
[CV 4/5; 354/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=170;, score=0.412 total
       2.7s
[CV 3/5; 357/400] START bootstrap=True, max depth=12, max features=sqrt,
min samples leaf=3, min samples split=8, n estimators=100
[CV 3/5; 354/400] END bootstrap=True, max depth=12, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=170;, score=0.401 total
time=
       2.8s
[CV 4/5; 357/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100
[CV 5/5; 354/400] END bootstrap=True, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=170;, score=0.430 total
time=
        2.8s
[CV 5/5; 357/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100
[CV 2/5; 357/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100;, score=0.406 total
time=
      0.5s
[CV 1/5; 357/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100;, score=0.438 total
time= 0.5s
[CV 1/5; 358/400] START bootstrap=True, max depth=10, max features=sqrt,
min samples leaf=1, min samples split=3, n estimators=106
[CV 2/5; 358/400] START bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=106
[CV 4/5; 357/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100;, score=0.381 total
[CV 3/5; 357/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100;, score=0.399 total
[CV 3/5; 358/400] START bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=106[CV 4/5; 358/400] START
bootstrap=True, max depth=10, max features=sqrt, min samples leaf=1,
min_samples_split=3, n_estimators=106
[CV 5/5; 357/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100;, score=0.415 total
time=
      0.6s
[CV 5/5; 358/400] START bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=106
[CV 1/5; 358/400] END bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=106;, score=0.453 total
time=
       0.5s
[CV 1/5; 359/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=112
[CV 2/5; 358/400] END bootstrap=True, max_depth=10, max_features=sqrt,
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min_samples_leaf=1, min_samples_split=3, n_estimators=106;, score=0.394 total
time=
      0.5s
[CV 2/5; 359/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=112
[CV 3/5; 358/400] END bootstrap=True, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=106;, score=0.407 total
time= 0.5s
[CV 3/5; 359/400] START bootstrap=True, max depth=6, max features=None,
min samples leaf=1, min samples split=5, n estimators=112
[CV 4/5; 358/400] END bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=106;, score=0.373 total
       0.5s
time=
[CV 4/5; 359/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=112
[CV 5/5; 358/400] END bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=106;, score=0.402 total
time=
      0.7s
[CV 5/5; 359/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=112
[CV 5/5; 356/400] END bootstrap=False, max depth=13, max features=None,
min samples leaf=1, min samples split=2, n estimators=102;, score=0.376 total
time=
       2.6s
[CV 1/5; 360/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=50
[CV 2/5; 356/400] END bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=102;, score=0.383 total
time=
      2.8s
[CV 2/5; 360/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=50
[CV 1/5; 356/400] END bootstrap=False, max depth=13, max features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=102;, score=0.431 total
       2.8s
[CV 3/5; 360/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=50
[CV 4/5; 356/400] END bootstrap=False, max depth=13, max features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=102;, score=0.373 total
time= 2.9s
[CV 4/5; 360/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=50
[CV 3/5; 356/400] END bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=102;, score=0.388 total
       3.0s
time=
[CV 2/5; 359/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=112;, score=0.403 total
time=
       1.0s
[CV 5/5; 360/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=50
[CV 1/5; 361/400] START bootstrap=False, max_depth=5, max_features=sqrt,
```

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min_samples_leaf=1, min_samples_split=7, n_estimators=126
[CV 1/5; 359/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=112;, score=0.409 total
time= 1.0s
[CV 2/5; 361/400] START bootstrap=False, max depth=5, max features=sqrt,
min samples leaf=1, min samples split=7, n estimators=126
[CV 3/5; 360/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=50;, score=0.358 total
time=
      0.4s
[CV 2/5; 360/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min samples leaf=1, min samples split=9, n estimators=50;, score=0.396 total
[CV 1/5; 360/400] END bootstrap=False, max depth=12, max features=sqrt,
min samples leaf=1, min samples split=9, n estimators=50;, score=0.409 total
[CV 3/5; 361/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=126
[CV 4/5; 361/400] START bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=126
[CV 5/5; 361/400] START bootstrap=False, max depth=5, max features=sqrt,
min samples leaf=1, min samples split=7, n estimators=126
[CV 4/5; 360/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=50;, score=0.368 total
time=
      0.4s
[CV 1/5; 362/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=182
[CV 4/5; 359/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=112;, score=0.364 total
[CV 2/5; 362/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=182
[CV 3/5; 359/400] END bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=112;, score=0.366 total
time=
      1.1s
[CV 3/5; 362/400] START bootstrap=False, max_depth=5, max_features=None,
min samples leaf=3, min samples split=3, n estimators=182
[CV 5/5; 360/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=50;, score=0.404 total
time= 0.4s
[CV 4/5; 362/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=182
[CV 2/5; 361/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=126;, score=0.412 total
time=
       0.5s
[CV 5/5; 362/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=182
[CV 1/5; 361/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=126;, score=0.413 total
```

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0.6s
time=
[CV 1/5; 363/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=164
[CV 5/5; 361/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min samples leaf=1, min samples split=7, n estimators=126;, score=0.391 total
       0.5s
time=
[CV 3/5; 361/400] END bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=126;, score=0.357 total
      0.5s
[CV 2/5; 363/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=164
[CV 4/5; 361/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=126;, score=0.395 total
time=
       0.5s
[CV 3/5; 363/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=164
[CV 4/5; 363/400] START bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=164
[CV 5/5; 359/400] END bootstrap=True, max_depth=6, max_features=None,
min samples leaf=1, min samples split=5, n estimators=112;, score=0.396 total
time= 1.1s
[CV 5/5; 363/400] START bootstrap=True, max depth=14, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=164
[CV 1/5; 363/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=164;, score=0.431 total
time=
      0.9s
[CV 1/5; 364/400] START bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=122
[CV 2/5; 363/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=164;, score=0.405 total
time=
      0.9s
[CV 2/5; 364/400] START bootstrap=False, max_depth=14, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=122
[CV 3/5; 363/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min samples leaf=1, min samples split=7, n estimators=164;, score=0.392 total
time= 1.0s
[CV 3/5; 364/400] START bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=122
[CV 4/5; 363/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=164;, score=0.396 total
time=
      1.0s
[CV 4/5; 364/400] START bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=122
[CV 5/5; 363/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=164;, score=0.407 total
[CV 5/5; 364/400] START bootstrap=False, max_depth=14, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=122
```

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[CV 1/5; 362/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=182;, score=0.407 total
time=
       2.3s
[CV 1/5; 364/400] END bootstrap=False, max_depth=14, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=122;, score=0.421 total
time=
[CV 1/5; 365/400] START bootstrap=False, max depth=16, max features=None,
min samples leaf=3, min samples split=4, n estimators=164
[CV 3/5; 362/400] END bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=182;, score=0.348 total
time=
       2.3s
[CV 3/5; 365/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=164
[CV 2/5; 365/400] START bootstrap=False, max depth=16, max features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=164
[CV 2/5; 362/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=182;, score=0.379 total
       2.3s
[CV 4/5; 365/400] START bootstrap=False, max_depth=16, max_features=None,
min samples leaf=3, min samples split=4, n estimators=164
[CV 4/5; 362/400] END bootstrap=False, max depth=5, max features=None,
min samples leaf=3, min samples split=3, n estimators=182;, score=0.381 total
time=
      2.3s
[CV 5/5; 365/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=164
[CV 3/5; 364/400] END bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=122;, score=0.379 total
time=
       1.1s
[CV 2/5; 364/400] END bootstrap=False, max depth=14, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=122;, score=0.407 total
time=
      1.1s
[CV 1/5; 366/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=20
[CV 2/5; 366/400] START bootstrap=False, max_depth=5, max_features=None,
min samples leaf=2, min samples split=8, n estimators=20
[CV 4/5; 364/400] END bootstrap=False, max depth=14, max features=sqrt,
min samples leaf=3, min samples split=6, n estimators=122;, score=0.394 total
time=
      1.1s
[CV 3/5; 366/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=20
[CV 5/5; 362/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=182;, score=0.386 total
time=
[CV 4/5; 366/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=20
[CV 5/5; 364/400] END bootstrap=False, max_depth=14, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=122;, score=0.405 total
time=
       1.1s
```

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[CV 5/5; 366/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=20
[CV 1/5; 366/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=20;, score=0.407 total
time= 0.3s
[CV 2/5; 366/400] END bootstrap=False, max depth=5, max features=None,
min samples leaf=2, min samples split=8, n estimators=20;, score=0.379 total
time=
      0.3s
[CV 1/5; 367/400] START bootstrap=False, max depth=5, max features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=22
[CV 2/5; 367/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=22
[CV 3/5; 366/400] END bootstrap=False, max_depth=5, max_features=None,
min samples leaf=2, min samples split=8, n estimators=20;, score=0.348 total
       0.3s
[CV 3/5; 367/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=22
[CV 4/5; 366/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=20;, score=0.381 total
time=
      0.3s
[CV 4/5; 367/400] START bootstrap=False, max depth=5, max features=None,
min samples leaf=1, min samples split=8, n estimators=22
[CV 5/5; 366/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=20;, score=0.386 total
time= 0.2s
[CV 5/5; 367/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=22
[CV 1/5; 367/400] END bootstrap=False, max_depth=5, max_features=None,
min samples leaf=1, min samples split=8, n estimators=22;, score=0.407 total
time=
      0.3s
[CV 1/5; 368/400] START bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=66
[CV 2/5; 367/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=22;, score=0.379 total
time= 0.3s
[CV 2/5; 368/400] START bootstrap=True, max depth=11, max features=sqrt,
min samples leaf=2, min samples split=7, n estimators=66
[CV 3/5; 367/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=8, n_estimators=22;, score=0.348 total
time=
      0.3s
[CV 3/5; 368/400] START bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=66
[CV 4/5; 367/400] END bootstrap=False, max_depth=5, max_features=None,
min samples leaf=1, min samples split=8, n estimators=22;, score=0.381 total
time=
      0.3s
[CV 4/5; 368/400] START bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=66
[CV 5/5; 367/400] END bootstrap=False, max_depth=5, max_features=None,
```

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min samples leaf=1, min samples split=8, n estimators=22;, score=0.380 total
time=
      0.3s
[CV 5/5; 368/400] START bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=66
[CV 2/5; 368/400] END bootstrap=True, max depth=11, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=66;, score=0.394 total
time= 0.3s
[CV 1/5; 369/400] START bootstrap=False, max_depth=16, max_features=sqrt,
min samples leaf=3, min samples split=5, n estimators=168
[CV 1/5; 368/400] END bootstrap=True, max_depth=11, max_features=sqrt,
min samples leaf=2, min samples split=7, n estimators=66;, score=0.431 total
time=
       0.3s
[CV 2/5; 369/400] START bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=168
[CV 4/5; 368/400] END bootstrap=True, max_depth=11, max_features=sqrt,
min samples leaf=2, min samples split=7, n estimators=66;, score=0.391 total
time=
      0.3s
[CV 3/5; 369/400] START bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=168
[CV 3/5; 368/400] END bootstrap=True, max depth=11, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=66;, score=0.412 total
time= 0.3s
[CV 4/5; 369/400] START bootstrap=False, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=168
[CV 5/5; 368/400] END bootstrap=True, max_depth=11, max_features=sqrt,
min samples leaf=2, min samples split=7, n estimators=66;, score=0.402 total
time=
      0.4s
[CV 5/5; 369/400] START bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=168
[CV 2/5; 369/400] END bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=168;, score=0.403 total
      1.5s
[CV 1/5; 370/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=128
[CV 1/5; 369/400] END bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=168;, score=0.421 total
time= 1.6s
[CV 2/5; 370/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=128
[CV 4/5; 369/400] END bootstrap=False, max_depth=16, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=168;, score=0.398 total
time=
      1.6s
[CV 3/5; 370/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=128
[CV 3/5; 369/400] END bootstrap=False, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=168;, score=0.387 total
time=
      1.7s
[CV 4/5; 370/400] START bootstrap=False, max depth=18, max features=None,
```

min\_samples\_leaf=1, min\_samples\_split=4, n\_estimators=128 [CV 5/5; 369/400] END bootstrap=False, max depth=16, max features=sqrt, min\_samples\_leaf=3, min\_samples\_split=5, n\_estimators=168;, score=0.401 total 1.7s [CV 5/5; 370/400] START bootstrap=False, max depth=18, max features=None, min samples leaf=1, min samples split=4, n estimators=128 [CV 2/5; 365/400] END bootstrap=False, max depth=16, max features=None, min\_samples\_leaf=3, min\_samples\_split=4, n\_estimators=164;, score=0.399 total time= 4.9s[CV 1/5; 371/400] START bootstrap=False, max\_depth=20, max\_features=None, min\_samples\_leaf=2, min\_samples\_split=7, n\_estimators=152 [CV 1/5; 365/400] END bootstrap=False, max\_depth=16, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=4, n\_estimators=164;, score=0.414 total time= 5.1s [CV 2/5; 371/400] START bootstrap=False, max depth=20, max features=None, min\_samples\_leaf=2, min\_samples\_split=7, n\_estimators=152 [CV 5/5; 365/400] END bootstrap=False, max\_depth=16, max\_features=None, min\_samples\_leaf=3, min\_samples\_split=4, n\_estimators=164;, score=0.401 total time= 5.0s [CV 3/5; 371/400] START bootstrap=False, max depth=20, max features=None, min\_samples\_leaf=2, min\_samples\_split=7, n\_estimators=152 [CV 4/5; 365/400] END bootstrap=False, max depth=16, max features=None, min\_samples\_leaf=3, min\_samples\_split=4, n\_estimators=164;, score=0.390 total time= 5.1s[CV 4/5; 371/400] START bootstrap=False, max\_depth=20, max\_features=None, min\_samples\_leaf=2, min\_samples\_split=7, n\_estimators=152 [CV 3/5; 365/400] END bootstrap=False, max depth=16, max features=None, min\_samples\_leaf=3, min\_samples\_split=4, n\_estimators=164;, score=0.392 total [CV 5/5; 371/400] START bootstrap=False, max depth=20, max features=None, min\_samples\_leaf=2, min\_samples\_split=7, n\_estimators=152 [CV 2/5; 370/400] END bootstrap=False, max\_depth=18, max\_features=None, min\_samples\_leaf=1, min\_samples\_split=4, n\_estimators=128;, score=0.402 total time= 4.1s[CV 1/5; 372/400] START bootstrap=False, max\_depth=15, max\_features=None, min samples leaf=1, min samples split=6, n estimators=174 [CV 1/5; 370/400] END bootstrap=False, max depth=18, max features=None, min\_samples\_leaf=1, min\_samples\_split=4, n\_estimators=128;, score=0.421 total time= 4.3s[CV 2/5; 372/400] START bootstrap=False, max\_depth=15, max\_features=None, min\_samples\_leaf=1, min\_samples\_split=6, n\_estimators=174 [CV 3/5; 370/400] END bootstrap=False, max depth=18, max features=None, min\_samples\_leaf=1, min\_samples\_split=4, n\_estimators=128;, score=0.380 total time= 4.4s[CV 3/5; 372/400] START bootstrap=False, max depth=15, max features=None, min\_samples\_leaf=1, min\_samples\_split=6, n\_estimators=174 [CV 4/5; 370/400] END bootstrap=False, max\_depth=18, max\_features=None, min\_samples\_leaf=1, min\_samples\_split=4, n\_estimators=128;, score=0.391 total

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time=
       4.4s
[CV 4/5; 372/400] START bootstrap=False, max depth=15, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=174
[CV 5/5; 370/400] END bootstrap=False, max_depth=18, max_features=None,
min samples leaf=1, min samples split=4, n estimators=128;, score=0.407 total
time=
       4.4s
[CV 5/5; 372/400] START bootstrap=False, max depth=15, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=174
[CV 2/5; 371/400] END bootstrap=False, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=152;, score=0.401 total
time= 5.1s
[CV 1/5; 373/400] START bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196
[CV 1/5; 371/400] END bootstrap=False, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=152;, score=0.395 total
time=
      5.4s
[CV 2/5; 373/400] START bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196
[CV 4/5; 371/400] END bootstrap=False, max_depth=20, max_features=None,
min samples leaf=2, min samples split=7, n estimators=152;, score=0.383 total
time=
      5.2s
[CV 3/5; 373/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196
[CV 5/5; 371/400] END bootstrap=False, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=152;, score=0.416 total
time=
       5.4s
[CV 4/5; 373/400] START bootstrap=False, max depth=18, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196
[CV 3/5; 371/400] END bootstrap=False, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=152;, score=0.381 total
time=
       5.6s
[CV 5/5; 373/400] START bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196
[CV 1/5; 372/400] END bootstrap=False, max_depth=15, max_features=None,
min samples leaf=1, min samples split=6, n estimators=174;, score=0.413 total
time= 5.0s
[CV 1/5; 374/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=156
[CV 2/5; 372/400] END bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=174;, score=0.392 total
time=
      5.1s
[CV 2/5; 374/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=156
[CV 3/5; 372/400] END bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=174;, score=0.384 total
[CV 3/5; 374/400] START bootstrap=True, max_depth=5, max_features=None,
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min\_samples\_leaf=1, min\_samples\_split=6, n\_estimators=156

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[CV 4/5; 372/400] END bootstrap=False, max depth=15, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=174;, score=0.368 total
time=
       5.2s
[CV 5/5; 372/400] END bootstrap=False, max_depth=15, max_features=None,
min samples leaf=1, min samples split=6, n estimators=174;, score=0.396 total
time=
[CV 4/5; 374/400] START bootstrap=True, max depth=5, max features=None,
min samples leaf=1, min samples split=6, n estimators=156
[CV 5/5; 374/400] START bootstrap=True, max depth=5, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=156
[CV 1/5; 374/400] END bootstrap=True, max depth=5, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=156;, score=0.412 total
time=
      1.2s
[CV 1/5; 375/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=98
[CV 2/5; 374/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=156;, score=0.417 total
time= 1.3s
[CV 2/5; 375/400] START bootstrap=True, max_depth=8, max_features=None,
min samples leaf=3, min samples split=3, n estimators=98
[CV 3/5; 374/400] END bootstrap=True, max depth=5, max features=None,
min samples leaf=1, min samples split=6, n estimators=156;, score=0.354 total
time=
      1.2s
[CV 3/5; 375/400] START bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=98
[CV 5/5; 374/400] END bootstrap=True, max depth=5, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=156;, score=0.389 total
time=
      1.2s
[CV 4/5; 375/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=98
[CV 4/5; 374/400] END bootstrap=True, max depth=5, max features=None,
min_samples_leaf=1, min_samples_split=6, n_estimators=156;, score=0.376 total
time=
      1.3s
[CV 5/5; 375/400] START bootstrap=True, max_depth=8, max_features=None,
min samples leaf=3, min samples split=3, n estimators=98
[CV 1/5; 375/400] END bootstrap=True, max depth=8, max features=None,
min samples leaf=3, min samples split=3, n estimators=98;, score=0.425 total
time=
      1.1s
[CV 1/5; 376/400] START bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=142
[CV 2/5; 375/400] END bootstrap=True, max_depth=8, max_features=None,
min samples leaf=3, min samples split=3, n estimators=98;, score=0.398 total
[CV 2/5; 376/400] START bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=142
[CV 1/5; 376/400] END bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=142;, score=0.414 total
```

time=

0.5s

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[CV 3/5; 376/400] START bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=142
[CV 3/5; 375/400] END bootstrap=True, max depth=8, max features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=98;, score=0.374 total
time= 1.1s
[CV 4/5; 376/400] START bootstrap=True, max depth=6, max features=sqrt,
min samples leaf=2, min samples split=9, n estimators=142
[CV 4/5; 375/400] END bootstrap=True, max_depth=8, max_features=None,
min samples leaf=3, min samples split=3, n estimators=98;, score=0.379 total
time=
      1.2s
[CV 5/5; 376/400] START bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=142
[CV 5/5; 375/400] END bootstrap=True, max depth=8, max features=None,
min samples leaf=3, min samples split=3, n estimators=98;, score=0.400 total
[CV 1/5; 377/400] START bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=90
[CV 2/5; 376/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=142;, score=0.391 total
time=
      0.5s
[CV 2/5; 377/400] START bootstrap=True, max depth=15, max features=None,
min samples leaf=3, min samples split=7, n estimators=90
[CV 3/5; 376/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=142;, score=0.374 total
time= 0.5s
[CV 3/5; 377/400] START bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=90
[CV 4/5; 376/400] END bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=142;, score=0.379 total
time=
      0.5s
[CV 4/5; 377/400] START bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=90
[CV 5/5; 376/400] END bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=142;, score=0.387 total
time= 0.5s
[CV 5/5; 377/400] START bootstrap=True, max depth=15, max features=None,
min samples leaf=3, min samples split=7, n estimators=90
[CV 2/5; 373/400] END bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196;, score=0.401 total
time=
      6.3s
[CV 1/5; 378/400] START bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=154
[CV 1/5; 377/400] END bootstrap=True, max_depth=15, max_features=None,
min samples leaf=3, min samples split=7, n estimators=90;, score=0.433 total
time=
       1.6s
[CV 2/5; 378/400] START bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=154
[CV 2/5; 377/400] END bootstrap=True, max_depth=15, max_features=None,
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min samples leaf=3, min samples split=7, n estimators=90;, score=0.407 total
time=
      1.6s
[CV 3/5; 378/400] START bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=154
[CV 1/5; 373/400] END bootstrap=False, max depth=18, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196;, score=0.425 total
time= 6.5s
[CV 4/5; 378/400] START bootstrap=False, max_depth=13, max_features=sqrt,
min samples leaf=1, min samples split=4, n estimators=154
[CV 3/5; 377/400] END bootstrap=True, max_depth=15, max_features=None,
min samples leaf=3, min samples split=7, n estimators=90;, score=0.440 total
       1.7s
time=
[CV 5/5; 378/400] START bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=154
[CV 5/5; 377/400] END bootstrap=True, max_depth=15, max_features=None,
min samples leaf=3, min samples split=7, n estimators=90;, score=0.420 total
time=
      1.6s
[CV 1/5; 379/400] START bootstrap=False, max depth=10, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=122
[CV 4/5; 377/400] END bootstrap=True, max depth=15, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=90;, score=0.388 total
time= 1.7s
[CV 2/5; 379/400] START bootstrap=False, max_depth=10, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=122
[CV 4/5; 373/400] END bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196;, score=0.396 total
time=
      6.6s
[CV 3/5; 379/400] START bootstrap=False, max depth=10, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=122
[CV 5/5; 373/400] END bootstrap=False, max_depth=18, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196;, score=0.411 total
time= 6.4s
[CV 4/5; 379/400] START bootstrap=False, max depth=10, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=122
[CV 3/5; 373/400] END bootstrap=False, max depth=18, max features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196;, score=0.391 total
time= 6.9s
[CV 5/5; 379/400] START bootstrap=False, max depth=10, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=122
[CV 2/5; 378/400] END bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=154;, score=0.398 total
time=
      1.3s
[CV 1/5; 378/400] END bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=154;, score=0.432 total
time=
       1.4s
[CV 1/5; 380/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166
[CV 2/5; 380/400] START bootstrap=True, max_depth=12, max_features=sqrt,
```

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min_samples_leaf=2, min_samples_split=5, n_estimators=166
[CV 3/5; 378/400] END bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=154;, score=0.372 total
time= 1.4s
[CV 3/5; 380/400] START bootstrap=True, max depth=12, max features=sqrt,
min samples leaf=2, min samples split=5, n estimators=166
[CV 4/5; 378/400] END bootstrap=False, max depth=13, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=154;, score=0.369 total
time=
      1.3s
[CV 4/5; 380/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166
[CV 5/5; 378/400] END bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=154;, score=0.408 total
time=
      1.3s
[CV 5/5; 380/400] START bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166
[CV 2/5; 380/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166;, score=0.412 total
time=
      0.8s
[CV 1/5; 380/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166;, score=0.435 total
time= 0.9s
[CV 1/5; 381/400] START bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=174
[CV 2/5; 381/400] START bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=174
[CV 3/5; 380/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166;, score=0.392 total
[CV 3/5; 381/400] START bootstrap=False, max depth=17, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=174
[CV 4/5; 380/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166;, score=0.396 total
time=
      0.9s
[CV 4/5; 381/400] START bootstrap=False, max_depth=17, max_features=None,
min samples leaf=3, min samples split=2, n estimators=174
[CV 5/5; 380/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166;, score=0.429 total
time= 0.8s
[CV 5/5; 381/400] START bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=174
[CV 1/5; 379/400] END bootstrap=False, max_depth=10, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=122;, score=0.387 total
time=
       2.7s
[CV 1/5; 382/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=178
[CV 2/5; 379/400] END bootstrap=False, max_depth=10, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=122;, score=0.376 total
```

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time=
        2.6s
[CV 2/5; 382/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=178
[CV 4/5; 379/400] END bootstrap=False, max_depth=10, max_features=None,
min samples leaf=2, min samples split=4, n estimators=122;, score=0.359 total
time=
        2.7s
[CV 3/5; 382/400] START bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=178
[CV 5/5; 379/400] END bootstrap=False, max depth=10, max features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=122;, score=0.367 total
time=
       2.8s
[CV 4/5; 382/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=178
[CV 3/5; 379/400] END bootstrap=False, max_depth=10, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=122;, score=0.350 total
time=
       2.8s
[CV 5/5; 382/400] START bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=178
[CV 1/5; 382/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min samples leaf=2, min samples split=9, n estimators=178;, score=0.428 total
time=
      1.1s
[CV 1/5; 383/400] START bootstrap=True, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=72
[CV 2/5; 382/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=178;, score=0.406 total
time=
       1.1s
[CV 2/5; 383/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=72
[CV 3/5; 382/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=178;, score=0.409 total
time=
      1.1s
[CV 3/5; 383/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=72
[CV 5/5; 382/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min samples leaf=2, min samples split=9, n estimators=178;, score=0.426 total
time= 1.2s
[CV 4/5; 383/400] START bootstrap=True, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=72
[CV 4/5; 382/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=178;, score=0.399 total
time=
      1.3s
[CV 5/5; 383/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=72
[CV 2/5; 383/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=72;, score=0.409 total
[CV 1/5; 384/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=148
```

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[CV 1/5; 383/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=72;, score=0.435 total
time=
      1.4s
[CV 2/5; 384/400] START bootstrap=True, max_depth=20, max_features=None,
min samples leaf=2, min samples split=8, n estimators=148
[CV 3/5; 383/400] END bootstrap=True, max_depth=16, max_features=None,
min samples leaf=1, min samples split=7, n estimators=72;, score=0.422 total
time=
      1.4s
[CV 3/5; 384/400] START bootstrap=True, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=148
[CV 4/5; 383/400] END bootstrap=True, max_depth=16, max_features=None,
min samples leaf=1, min samples split=7, n estimators=72;, score=0.399 total
time=
      1.3s
[CV 4/5; 384/400] START bootstrap=True, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=148
[CV 5/5; 383/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=72;, score=0.442 total
time= 1.3s
[CV 5/5; 384/400] START bootstrap=True, max_depth=20, max_features=None,
min samples leaf=2, min samples split=8, n estimators=148
[CV 2/5; 381/400] END bootstrap=False, max depth=17, max features=None,
min samples leaf=3, min samples split=2, n estimators=174;, score=0.412 total
time=
      5.3s
[CV 1/5; 385/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=24
[CV 1/5; 385/400] END bootstrap=False, max depth=12, max features=sqrt,
min samples leaf=3, min samples split=6, n estimators=24;, score=0.401 total
time=
      0.2s
[CV 1/5; 381/400] END bootstrap=False, max depth=17, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=174;, score=0.424 total
time=
       5.6s
[CV 2/5; 385/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=24
[CV 3/5; 385/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=24
[CV 5/5; 381/400] END bootstrap=False, max depth=17, max features=None,
min samples leaf=3, min samples split=2, n estimators=174;, score=0.412 total
time=
      5.5s
[CV 4/5; 385/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=24
[CV 3/5; 385/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=24;, score=0.353 total
[CV 2/5; 385/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=24;, score=0.402 total
[CV 5/5; 385/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=24
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[CV 1/5; 386/400] START bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=46
[CV 4/5; 381/400] END bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=174;, score=0.401 total
time= 5.7s
[CV 2/5; 386/400] START bootstrap=True, max depth=6, max features=sqrt,
min samples leaf=1, min samples split=4, n estimators=46
[CV 4/5; 385/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=24;, score=0.388 total
time=
      0.2s
[CV 3/5; 386/400] START bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=46
[CV 1/5; 386/400] END bootstrap=True, max depth=6, max features=sqrt,
min samples leaf=1, min samples split=4, n estimators=46;, score=0.414 total
       0.1s
[CV 4/5; 386/400] START bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=46
[CV 3/5; 381/400] END bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=174;, score=0.399 total
time=
      6.0s
[CV 5/5; 385/400] END bootstrap=False, max depth=12, max features=sqrt,
min samples leaf=3, min samples split=6, n estimators=24;, score=0.375 total
      0.2s
[CV 5/5; 386/400] START bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=46
[CV 1/5; 387/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=100
[CV 2/5; 386/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min samples leaf=1, min samples split=4, n estimators=46;, score=0.391 total
time=
      0.2s
[CV 2/5; 387/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=100
[CV 3/5; 386/400] END bootstrap=True, max depth=6, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=46;, score=0.368 total
time= 0.1s
[CV 3/5; 387/400] START bootstrap=True, max depth=8, max features=None,
min samples leaf=3, min samples split=5, n estimators=100
[CV 4/5; 386/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=46;, score=0.391 total
time=
      0.2s
[CV 4/5; 387/400] START bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=100
[CV 5/5; 386/400] END bootstrap=True, max depth=6, max features=sqrt,
min samples leaf=1, min samples split=4, n estimators=46;, score=0.418 total
time=
       0.2s
[CV 5/5; 387/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=100
[CV 2/5; 384/400] END bootstrap=True, max_depth=20, max_features=None,
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min_samples_leaf=2, min_samples_split=8, n_estimators=148;, score=0.390 total
time=
      3.0s
[CV 1/5; 388/400] START bootstrap=False, max depth=None, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=90
[CV 1/5; 384/400] END bootstrap=True, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=148;, score=0.421 total
time= 3.2s
[CV 2/5; 388/400] START bootstrap=False, max_depth=None, max_features=None,
min samples leaf=1, min samples split=5, n estimators=90
[CV 3/5; 384/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=148;, score=0.409 total
       3.0s
[CV 3/5; 388/400] START bootstrap=False, max depth=None, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=90
[CV 5/5; 384/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=148;, score=0.430 total
time=
       3.0s
[CV 4/5; 388/400] START bootstrap=False, max depth=None, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=90
[CV 4/5; 384/400] END bootstrap=True, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=148;, score=0.388 total
time= 3.1s
[CV 5/5; 388/400] START bootstrap=False, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=90
[CV 2/5; 387/400] END bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=100;, score=0.396 total
time=
      1.1s
[CV 1/5; 389/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=114
[CV 1/5; 387/400] END bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=100;, score=0.431 total
time= 1.3s
[CV 2/5; 389/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=114
[CV 4/5; 387/400] END bootstrap=True, max depth=8, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=100;, score=0.374 total
time= 1.2s
[CV 3/5; 387/400] END bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=100;, score=0.380 total
time=
      1.3s
[CV 3/5; 389/400] START bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=114
[CV 4/5; 389/400] START bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=114
[CV 5/5; 387/400] END bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=100;, score=0.402 total
time=
      1.2s
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[CV 5/5; 389/400] START bootstrap=True, max depth=8, max features=None,

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min_samples_leaf=2, min_samples_split=7, n_estimators=114
[CV 1/5; 389/400] END bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=114;, score=0.438 total
time= 1.3s
[CV 1/5; 390/400] START bootstrap=True, max depth=8, max features=sqrt,
min samples leaf=2, min samples split=6, n estimators=156
[CV 2/5; 389/400] END bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=114;, score=0.402 total
time=
      1.3s
[CV 2/5; 390/400] START bootstrap=True, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=156
[CV 3/5; 389/400] END bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=114;, score=0.368 total
time=
      1.3s
[CV 3/5; 390/400] START bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=156
[CV 4/5; 389/400] END bootstrap=True, max_depth=8, max_features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=114;, score=0.377 total
time=
      1.3s
[CV 4/5; 390/400] START bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=156
[CV 5/5; 389/400] END bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=114;, score=0.407 total
time=
      1.3s
[CV 5/5; 390/400] START bootstrap=True, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=156
[CV 1/5; 390/400] END bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=156;, score=0.424 total
[CV 1/5; 391/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8
[CV 1/5; 391/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8;, score=0.422 total
time=
      0.1s
[CV 2/5; 391/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min samples leaf=1, min samples split=3, n estimators=8
[CV 3/5; 390/400] END bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=156;, score=0.387 total
time= 0.6s
[CV 3/5; 391/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8
[CV 2/5; 391/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8;, score=0.405 total
time=
      0.1s
[CV 4/5; 391/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8
[CV 2/5; 390/400] END bootstrap=True, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=156;, score=0.406 total
```

```
0.7s
time=
[CV 5/5; 391/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8
[CV 3/5; 391/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min samples leaf=1, min samples split=3, n estimators=8;, score=0.383 total
       0.1s
time=
[CV 4/5; 390/400] END bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=156;, score=0.383 total
      0.6s
[CV 1/5; 392/400] START bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24
[CV 4/5; 391/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8;, score=0.364 total
time=
      0.1s
[CV 2/5; 392/400] START bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24
[CV 3/5; 392/400] START bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24
[CV 5/5; 391/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min samples leaf=1, min samples split=3, n estimators=8;, score=0.400 total
time= 0.1s
[CV 4/5; 392/400] START bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24
[CV 5/5; 390/400] END bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=156;, score=0.405 total
time=
       0.7s
[CV 5/5; 392/400] START bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24
[CV 1/5; 392/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24;, score=0.399 total
time=
      0.2s
[CV 1/5; 393/400] START bootstrap=True, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120
[CV 2/5; 392/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min samples leaf=1, min samples split=7, n estimators=24;, score=0.399 total
time= 0.3s
[CV 2/5; 393/400] START bootstrap=True, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120
[CV 4/5; 392/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24;, score=0.365 total
time= 0.3s
[CV 3/5; 392/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24;, score=0.392 total
time=
      0.3s
[CV 3/5; 393/400] START bootstrap=True, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120
[CV 4/5; 393/400] START bootstrap=True, max_depth=9, max_features=None,
```

min\_samples\_leaf=2, min\_samples\_split=3, n\_estimators=120

```
[CV 5/5; 392/400] END bootstrap=False, max depth=19, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24;, score=0.411 total
time=
      0.3s
[CV 5/5; 393/400] START bootstrap=True, max_depth=9, max_features=None,
min samples leaf=2, min samples split=3, n estimators=120
[CV 2/5; 388/400] END bootstrap=False, max depth=None, max features=None,
min samples leaf=1, min samples split=5, n estimators=90;, score=0.392 total
time=
       3.7s
[CV 1/5; 394/400] START bootstrap=True, max depth=7, max features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=156
[CV 4/5; 388/400] END bootstrap=False, max depth=None, max features=None,
min samples leaf=1, min samples split=5, n estimators=90;, score=0.353 total
time=
       3.7s
[CV 2/5; 394/400] START bootstrap=True, max depth=7, max features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=156
[CV 1/5; 388/400] END bootstrap=False, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=90;, score=0.366 total
time= 4.1s
[CV 3/5; 394/400] START bootstrap=True, max_depth=7, max_features=None,
min samples leaf=3, min samples split=4, n estimators=156
[CV 5/5; 388/400] END bootstrap=False, max depth=None, max features=None,
min samples leaf=1, min samples split=5, n estimators=90;, score=0.387 total
time=
      3.8s
[CV 4/5; 394/400] START bootstrap=True, max_depth=7, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=156
[CV 3/5; 388/400] END bootstrap=False, max depth=None, max features=None,
min samples leaf=1, min samples split=5, n estimators=90;, score=0.336 total
time=
       4.5s
[CV 5/5; 394/400] START bootstrap=True, max_depth=7, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=156
[CV 1/5; 393/400] END bootstrap=True, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120;, score=0.433 total
time=
      1.7s
[CV 3/5; 393/400] END bootstrap=True, max_depth=9, max_features=None,
min samples leaf=2, min samples split=3, n estimators=120;, score=0.396 total
time= 1.6s
[CV 1/5; 395/400] START bootstrap=True, max depth=7, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=42
[CV 2/5; 395/400] START bootstrap=True, max_depth=7, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=42
[CV 2/5; 393/400] END bootstrap=True, max_depth=9, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120;, score=0.381 total
[CV 5/5; 393/400] END bootstrap=True, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120;, score=0.415 total
[CV 3/5; 395/400] START bootstrap=True, max_depth=7, max_features=sqrt,
```

min\_samples\_leaf=1, min\_samples\_split=6, n\_estimators=42

```
[CV 4/5; 395/400] START bootstrap=True, max_depth=7, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=42
[CV 4/5; 393/400] END bootstrap=True, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120;, score=0.395 total
time= 1.8s
[CV 5/5; 395/400] START bootstrap=True, max depth=7, max features=sqrt,
min samples leaf=1, min samples split=6, n estimators=42
[CV 1/5; 395/400] END bootstrap=True, max_depth=7, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=42;, score=0.427 total
time=
      0.2s
[CV 1/5; 396/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=60
[CV 3/5; 395/400] END bootstrap=True, max depth=7, max features=sqrt,
min samples leaf=1, min samples split=6, n estimators=42;, score=0.368 total
[CV 2/5; 395/400] END bootstrap=True, max_depth=7, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=42;, score=0.376 total
time= 0.2s
[CV 3/5; 396/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min samples leaf=2, min samples split=9, n estimators=60
[CV 2/5; 396/400] START bootstrap=True, max depth=20, max features=sqrt,
min samples leaf=2, min samples split=9, n estimators=60
[CV 4/5; 395/400] END bootstrap=True, max_depth=7, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=42;, score=0.387 total
time= 0.2s
[CV 4/5; 396/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=60
[CV 5/5; 395/400] END bootstrap=True, max_depth=7, max_features=sqrt,
min samples leaf=1, min samples split=6, n estimators=42;, score=0.393 total
time=
      0.2s
[CV 5/5; 396/400] START bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=60
[CV 1/5; 394/400] END bootstrap=True, max depth=7, max features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=156;, score=0.425 total
time=
      1.8s
[CV 1/5; 397/400] START bootstrap=True, max depth=None, max features=sqrt,
min samples leaf=2, min samples split=2, n estimators=74
[CV 1/5; 396/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=60;, score=0.414 total
time=
      0.5s
[CV 2/5; 397/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74
[CV 3/5; 396/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min samples leaf=2, min samples split=9, n estimators=60;, score=0.410 total
time=
       0.5s
[CV 3/5; 397/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74
[CV 2/5; 396/400] END bootstrap=True, max_depth=20, max_features=sqrt,
```

```
min samples leaf=2, min samples split=9, n estimators=60;, score=0.390 total
time=
      0.6s
[CV 4/5; 397/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74
[CV 4/5; 396/400] END bootstrap=True, max depth=20, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=60;, score=0.368 total
time= 0.6s
[CV 5/5; 397/400] START bootstrap=True, max_depth=None, max_features=sqrt,
min samples leaf=2, min samples split=2, n estimators=74
[CV 2/5; 394/400] END bootstrap=True, max_depth=7, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=156;, score=0.391 total
       1.8s
time=
[CV 1/5; 398/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=100
[CV 5/5; 396/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min samples leaf=2, min samples split=9, n estimators=60;, score=0.422 total
time=
      0.6s
[CV 3/5; 394/400] END bootstrap=True, max_depth=7, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=156;, score=0.368 total
time=
      1.8s
[CV 2/5; 398/400] START bootstrap=False, max depth=12, max features=sqrt,
min samples leaf=1, min samples split=5, n estimators=100
[CV 3/5; 398/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=100
[CV 4/5; 394/400] END bootstrap=True, max_depth=7, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=156;, score=0.369 total
time=
      1.9s
[CV 4/5; 398/400] START bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=100
[CV 2/5; 397/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min samples leaf=2, min samples split=2, n estimators=74;, score=0.376 total
      0.7s
[CV 5/5; 398/400] START bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=100
[CV 1/5; 397/400] END bootstrap=True, max depth=None, max features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74;, score=0.421 total
time= 0.8s
[CV 1/5; 399/400] START bootstrap=False, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=196
[CV 3/5; 397/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74;, score=0.417 total
      0.7s
time=
[CV 2/5; 399/400] START bootstrap=False, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=196
[CV 5/5; 397/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min samples leaf=2, min samples split=2, n estimators=74;, score=0.435 total
time=
      0.7s
```

[CV 4/5; 397/400] END bootstrap=True, max\_depth=None, max\_features=sqrt,

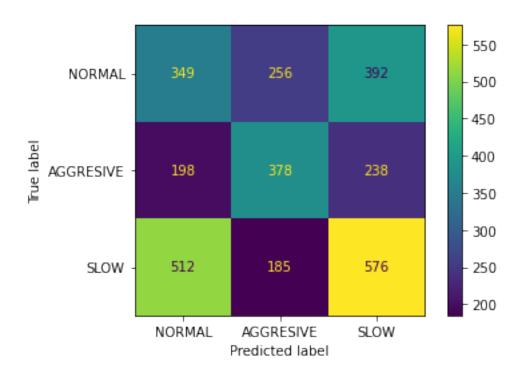
```
min samples leaf=2, min samples split=2, n estimators=74;, score=0.377 total
time=
      0.7s
[CV 3/5; 399/400] START bootstrap=False, max depth=20, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=196
[CV 4/5; 399/400] START bootstrap=False, max depth=20, max features=None,
min samples leaf=2, min samples split=5, n estimators=196
[CV 5/5; 394/400] END bootstrap=True, max depth=7, max features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=156;, score=0.401 total
       2.0s
time=
[CV 5/5; 399/400] START bootstrap=False, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=196
[CV 2/5; 398/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=100;, score=0.395 total
time=
      1.0s
[CV 1/5; 398/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=100;, score=0.427 total
time=
       1.1s
[CV 1/5; 400/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=152
[CV 2/5; 400/400] START bootstrap=True, max depth=16, max features=None,
min samples leaf=1, min samples split=4, n estimators=152
[CV 3/5; 398/400] END bootstrap=False, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=100;, score=0.368 total
time=
      1.0s
[CV 3/5; 400/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=152
[CV 4/5; 398/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=100;, score=0.373 total
[CV 4/5; 400/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=152
[CV 5/5; 398/400] END bootstrap=False, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=100;, score=0.401 total
time=
      1.0s
[CV 5/5; 400/400] START bootstrap=True, max depth=16, max features=None,
min samples leaf=1, min samples split=4, n estimators=152
[CV 3/5; 400/400] END bootstrap=True, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=152;, score=0.406 total
time=
      3.2s
[CV 1/5; 400/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=152;, score=0.432 total
time=
       3.3s
[CV 2/5; 400/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=152;, score=0.391 total
time=
       3.3s
[CV 4/5; 400/400] END bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=152;, score=0.383 total
time=
       3.1s
```

```
[CV 5/5; 400/400] END bootstrap=True, max_depth=16, max_features=None,
    min_samples_leaf=1, min_samples_split=4, n_estimators=152;, score=0.423 total
    time=
            3.1s
    [CV 2/5; 399/400] END bootstrap=False, max_depth=20, max_features=None,
    min_samples_leaf=2, min_samples_split=5, n_estimators=196;, score=0.402 total
    time=
    [CV 4/5; 399/400] END bootstrap=False, max depth=20, max features=None,
    min_samples_leaf=2, min_samples_split=5, n_estimators=196;, score=0.390 total
           6.5s
    [CV 5/5; 399/400] END bootstrap=False, max_depth=20, max_features=None,
    min_samples_leaf=2, min_samples_split=5, n_estimators=196;, score=0.412 total
    [CV 1/5; 399/400] END bootstrap=False, max depth=20, max features=None,
    min_samples_leaf=2, min_samples_split=5, n_estimators=196;, score=0.390 total
    [CV 3/5; 399/400] END bootstrap=False, max_depth=20, max_features=None,
    min_samples_leaf=2, min_samples_split=5, n_estimators=196;, score=0.380 total
    time=
           7.0s
[]: RandomizedSearchCV(cv=5,
                       estimator=RandomForestClassifier(class_weight={0: 1.2,
                                                                      1: 1.4,
                                                                      2: 1},
                                                        criterion='entropy',
                                                        min_impurity_decrease=0,
                                                        random_state=0),
                       n_iter=400, n_jobs=10,
                       param_distributions={'bootstrap': [True, False],
                                            'max_depth': [5, 5, 6, 7, 8, 8, 9, 10,
                                                          11, 12, 12, 13, 14, 15,
                                                          16, 16, 17, 18, 19, 20,
                                                          None],
                                            'max features': ['sqrt', None],
                                             'min_samples_leaf': array([1, 2, 3]),...
                                            'n_estimators': array([ 2, 4,
    8, 10, 12, 14, 16, 18, 20, 22, 24, 26,
            28,
                 30,
                      32, 34, 36, 38,
                                          40, 42, 44, 46, 48, 50, 52,
                                    64,
                                          66, 68, 70, 72, 74, 76, 78,
            54,
                 56,
                      58, 60,
                               62,
                      84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104,
            80, 82,
           106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130,
           132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156,
           158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182,
           184, 186, 188, 190, 192, 194, 196, 198])},
                       random state=0, verbose=10)
```

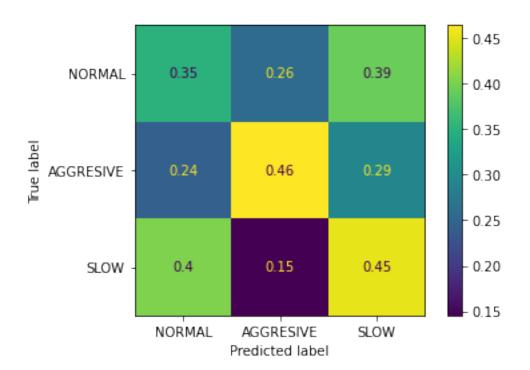
[]: random\_gscv.best\_params\_

```
[]: {'n_estimators': 84,
      'min_samples_split': 8,
      'min_samples_leaf': 2,
      'max_features': None,
      'max_depth': 17,
      'bootstrap': True}
[]: random_gscv.best_score_
[]: 0.42343983177316513
[]: random_gscv.score(X_training, y_training)
[]: 0.887211855104281
[]: random_gscv.score(X_test, y_test)
[]: 0.42250324254215305
[]: classes = ["NORMAL", "AGGRESIVE", "SLOW"]
[]: y_pred = random_gscv.predict(X_test)
     CM = confusion_matrix(y_test, y_pred)
     display = ConfusionMatrixDisplay(confusion_matrix=CM,
                            display_labels=classes)
     display.plot()
```

[]: <sklearn.metrics.\_plot.confusion\_matrix.ConfusionMatrixDisplay at 0x297811a80>



[]: <sklearn.metrics.\_plot.confusion\_matrix.ConfusionMatrixDisplay at 0x293c8f790>



## Evaluate improvment

Model Performance Accuracy = 0.404%. Model Performance Accuracy = 0.423%. Improvement of 4.575%.

## 0.2 Stacking classifier

```
[]: from sklearn.svm import LinearSVC
from sklearn.linear_model import LogisticRegression
from sklearn.preprocessing import StandardScaler
from sklearn.pipeline import make_pipeline
from sklearn.ensemble import StackingClassifier
```

```
0.2.1 Load knn model
[]: import joblib
     filename = 'trained_models/knn_bagging.sav'
     knn_bagging = joblib.load(filename)
[]: #estimators = [('rf', random gscv.best estimator), ('svr', random gscv.best estimator), ('svr', random gscv.best estimator)
      →make_pipeline(StandardScaler(), LinSearSVC(random_state=0, max_iter=10000, __
      ⇔class weight=weights)))]
     estimators = [('rf', random_gscv.best_estimator_), ('svr', knn_bagging)]
     clf = StackingClassifier(estimators=estimators,__

¬final_estimator=LogisticRegression(max_iter=1000))
     clf.fit(X_test, y_test)
[]: StackingClassifier(estimators=[('rf',
                                        RandomForestClassifier(class_weight={0: 1.2,
                                                                                1: 1.4,
                                                                                2: 1},
                                                                 criterion='entropy',
                                                                 max_depth=17,
                                                                 max_features=None,
                                                                 min_impurity_decrease=0,
                                                                 min_samples_leaf=2,
                                                                 min_samples_split=8,
                                                                 n_estimators=84,
                                                                 random_state=0)),
                                       ('svr',
     BaggingClassifier(base_estimator=KNeighborsClassifier(leaf_size=20,
           n_neighbors=27),
                                                           max features=0.7,
                                                           max_samples=0.8,
                                                           random state=0))],
                          final_estimator=LogisticRegression(max_iter=1000))
```

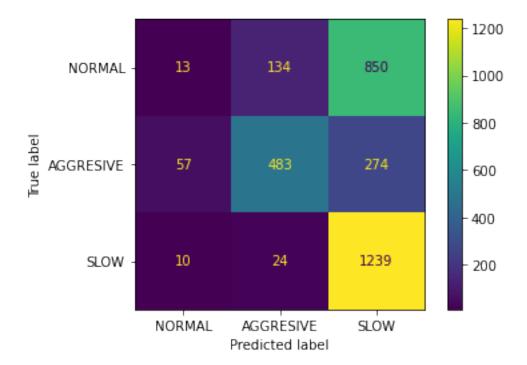
[]: clf.score(X\_training, y\_training)

## []: 0.43633369923161364

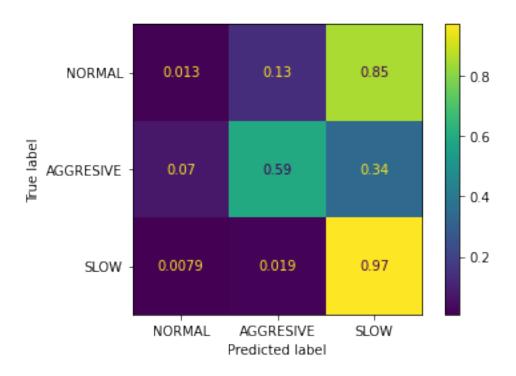
```
[]: clf.score(X_test, y_test)
```

## []: 0.5625810635538262

[]: <sklearn.metrics.\_plot.confusion\_matrix.ConfusionMatrixDisplay at 0x293d346d0>



[]: <sklearn.metrics.\_plot.confusion\_matrix.ConfusionMatrixDisplay at 0x29341cd30>



[]: