# driving behavior random forest v4

## 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
[]:
                               Class DiffAccX DiffAccY
                                                              VelX
              AccX
                        AccY
                                                                        VelY
          0.000000 0.000000
                              NORMAL 0.000000 0.000000 0.000000 0.000000
         -1.624864 -1.082492 NORMAL -1.624864 -1.082492 -0.812432 -0.541246
    1
         -0.594660 -0.122410
                              NORMAL 1.030204 0.960082 -0.297330 -0.061205
    3
          0.738478 -0.228456 NORMAL 1.333138 -0.106046 0.369239 -0.114228
          0.101741 0.777568
                              NORMAL -0.636737 1.006023 0.050871 0.388784
    3639 0.915688 -2.017489
                                SLOW 2.374675 -1.824629 0.457844 -1.008745
    3640 -1.934203 0.914925
                                SLOW -2.849891 2.932414 -0.967102
                                                                    0.457462
    3641 -0.222845
                                SLOW 1.711359 -0.167621 -0.111422
                    0.747304
                                                                    0.373652
    3642 -0.349423
                    0.067261
                                SLOW -0.126579 -0.680043 -0.174712
                                                                    0.033630
    3643 -0.402428 0.406218
                                SLOW -0.053005 0.338957 -0.201214
                                                                    0.203109
     [3644 rows x 7 columns]
[]: df_training.isna().sum()
[]: AccX
                0
    AccY
                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(

1

0

```
{"Class": {"NORMAL": 0, "AGGRESSIVE": 1, "SLOW": 2}})
    df test = df test.replace(
         {"Class": {"NORMAL": 0, "AGGRESSIVE": 1, "SLOW": 2}})
    df_training
[]:
              AccX
                        AccY Class DiffAccX DiffAccY
                                                            VelX
                                                                      VelY
          0.000000 0.000000
                                     0.000000 0.000000 0.000000 0.000000
    0
         -1.624864 -1.082492
                                  0 -1.624864 -1.082492 -0.812432 -0.541246
    1
    2
         -0.594660 -0.122410
                                  0 1.030204 0.960082 -0.297330 -0.061205
    3
          0.738478 -0.228456
                                     1.333138 -0.106046  0.369239 -0.114228
                                  0 -0.636737 1.006023
    4
                                                        0.050871 0.388784
          0.101741 0.777568
    3639 0.915688 -2.017489
                                  2 2.374675 -1.824629 0.457844 -1.008745
                                  2 -2.849891 2.932414 -0.967102 0.457462
    3640 -1.934203 0.914925
    3641 -0.222845 0.747304
                                  2 1.711359 -0.167621 -0.111422 0.373652
    3642 -0.349423 0.067261
                                  2 -0.126579 -0.680043 -0.174712 0.033630
                                  3643 -0.402428 0.406218
    [3644 rows x 7 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}
[]:
                AccX
                            AccY
                                    DiffAccX
                                               DiffAccY
                                                               VelX
                                                                           VelY \
    0
           -4.105593
                        8.126800
                                    0.010300
                                               -0.010421
                                                          -4.105593
                                                                       8.126800
    1
         -168.957027 -111.696347 -151.542377 -101.201825 -168.957027 -111.696347
                                                                      -5.422989
    2
          -64.437130
                       -5.422989
                                   96.098456
                                               89.738101
                                                         -64.437130
    3
           70.817107
                      -17.161393
                                  124.353421
                                               -9.923577
                                                          70.817107 -17.161393
    4
            6.216602
                       94.197287
                                  -59.378806
                                               94.032688
                                                           6.216602
                                                                      94.197287
    3639
           88.795978 -215.193071
                                  221.498566 -170.576840
                                                          88.795978 -215.193071
    3640 -200.341232
                      109.401604 -265.801873 274.111831 -200.341232 109.401604
    3641
          -26.714411
                       90.847295
                                  159.630443
                                             -15.679652
                                                         -26.714411
                                                                      90.847295
    3642
          -39.556507
                       15.572024
                                  -11.795809
                                            -63.580862
                                                         -39.556507
                                                                      15.572024
    3643 -44.934120
                       53.091875
                                  -4.933494
                                              31.675331 -44.934120
                                                                      53.091875
          Class
    0
              0
```

```
2
               0
     3
               0
     4
               0
     3639
               2
               2
     3640
     3641
               2
               2
     3642
               2
     3643
     [3644 rows x 7 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
                                      DiffAccX
                                                   DiffAccY
                                                                   VelX
                                                                                VelY \
            67.345100
                                     -0.021340
                                                             -10.948927
                         -9.509000
                                                  -0.012385
                                                                           14.564454
     1
            57.982946
                         10.303100
                                     -8.494392
                                                  16.758078
                                                              58.012497
                                                                           10.295271
     2
           270.452050 -824.010358
                                    192.270076 -706.238535
                                                             270.496822 -824.016540
     3
           229.805029 -828.171460
                                    -36.808209
                                                  -3.534656
                                                             229.846889 -828.177633
                                                  81.053740
     4
                                                             283.179007 -732.408842
           283.133326 -732.402479
                                     48.242495
                                     •••
                                                             -84.693107
     3079
           -84.712435
                        -57.627689
                                    -73.609489
                                                  -1.097380
                                                                          -57.635384
     3080
           145.444037
                         51.068429
                                    208.277716
                                                  91.996249
                                                             145.479853
                                                                           51.060520
     3081
           121.268079 -177.287100
                                    -21.901364 -193.309813
                                                             121.302164 -177.294558
            83.265000
     3082
                         79.069807
                                    -34.415357
                                                 216.987532
                                                              83.296362
                                                                           79.061842
     3083
          140.063424
                         35.612446
                                     51.383072
                                                 -36.797989
                                                             140.098855
                                                                           35.604567
           Class
               1
     0
     1
               1
     2
               1
     3
               1
     4
               1
```

[3084 rows x 7 columns]

2

2

2

3079

3080

3081 3082

3083

### 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"""
```

#### 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
```

[]: RandomForestClassifier(criterion='entropy', max\_depth=15, n\_estimators=30, random\_state=5)

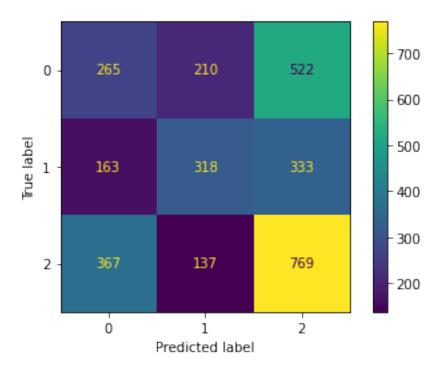
```
[]: rfc.score(X_training, y_training)
```

[]: 0.8347969264544457

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

[]: 0.4383916990920882

[]: <sklearn.metrics.\_plot.confusion\_matrix.ConfusionMatrixDisplay at 0x7f1d9ae56740>



[]: <sklearn.metrics.\_plot.confusion\_matrix.ConfusionMatrixDisplay at 0x7f1d75bdb970>

```
0.6
             0.27
                              0.21
    0 -
                                                0.52
                                                                    0.5
                                                                   - 0.4
True label
              0.2
                               0.39
                                                0.41
                                                                   - 0.3
                                                                   - 0.2
             0.29
                               0.11
                                                 0.6
    2
               ó
                                                  ż
                                1
                        Predicted label
```

```
[]: rfc.score(X_test, y_test)
[]: 0.4383916990920882
[]: 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
                15.898940
     AccX
     AccY
                16.420162
    DiffAccX
                16.700714
    DiffAccY
                18.298118
     VelX
                16.057796
     VelY
                16.624269
[]: rfc_imp.sort_values(by='importance', ascending=False)
[]:
               importance
     DiffAccY
                18.298118
     DiffAccX
                16.700714
     VelY
                16.624269
```

```
AccY
           16.420162
VelX
           16.057796
AccX
           15.898940
```

### 0.1.1 Train model with RandomSearchCV

```
[]: n_estimators = np.arange(2, 200, 2)
     max_features = ['sqrt', None]
     max_depth = [int(x) for x in np.linspace(5, 20, num = 20)]
     max depth.append(None)
     min_samples_split = np.arange(2, 10)
    min_samples_leaf = np.arange(1, 4)
     bootstrap = [True, False]
     random_grid = {'n_estimators': n_estimators,
                    'max_features': max_features,
                    'max_depth': max_depth,
                    'min_samples_split': min_samples_split,
                    'min_samples_leaf': min_samples_leaf,
                    'bootstrap': bootstrap}
[]: weights = \{0:1.05, 1:1.05, 2:1\}
     random_forest = RandomForestClassifier(random_state=0, criterion="entropy", __
      →min_impurity_decrease=0, class_weight=weights)
```

```
param_grid = {'n_estimators': np.arange(2, 40, 2), 'max_depth': np.arange(3, u)
→30), 'max_leaf_nodes': np.arange(6, 30, 2), 'min_samples_leaf': np.arange(1, __
→4)}
# best_params: test 47.5% {'max_depth': 7, 'n_estimators': 33}
# AccY, AccX, GyroZ, GyroX
# best params 2 : test 47% {'n_estimators': 96, 'min_samples_split': 3_1
יmin_samples_leaf': 1, 'max_features': 'sqrt', 'max_depth': 5, 'bootstrap': ا
\rightarrow False}
random_gscv = RandomizedSearchCV(random_forest, random_grid, n_iter=400, cv=5,_
→verbose=10, n_jobs=10, random_state=0)
random_gscv.fit(X_training, y_training)
```

Fitting 5 folds for each of 400 candidates, totalling 2000 fits [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; 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 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 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 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 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 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 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=0.401 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=0.452 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=0.439 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=0.413 total
time= 0.2s
[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=0.398 total
time=
      0.2s
[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 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; 3/400] START bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=80
[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 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=0.386 total
[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 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=0.387 total
time=
       3.4s
[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 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=0.372 total
time=
       3.5s
[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 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=0.414 total
time=
      3.5s
[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 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=0.390 total
      3.5s
[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 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=0.359 total
time=
      5.3s
[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 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=0.387 total
time=
       5.7s
[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 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=0.355 total
time=
      5.9s
[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 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=0.385 total
time=
      6.6s
[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 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=0.409 total
[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; 4/400] END bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=88;, score=0.385 total
time=
      1.9s
```

```
[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 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=0.365 total
time= 6.6s
[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 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=0.424 total
time=
      1.9s
[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 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=0.419 total
[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; 4/400] END bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=88;, score=0.406 total
time=
       2.0s
[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 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=0.433 total
time= 1.6s
[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 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=0.398 total
time=
      0.2s
[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 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=0.388 total
time= 0.2s
[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 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=0.396 total
time=
      1.6s
[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 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=0.381 total
time=
       1.6s
[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 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=0.387 total
time=
      0.2s
[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; 7/400] END bootstrap=True, max depth=None, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=18;, score=0.394 total
time= 0.2s
[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 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=0.413 total
time=
      0.2s
[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 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=0.412 total
time=
      1.4s
[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 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=0.385 total
time= 1.6s
[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; 6/400] END bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=108;, score=0.421 total
time=
      1.5s
[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; 6/400] END bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=108;, score=0.387 total
      1.5s
[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 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= 1.6s
[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 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=0.402 total
      1.7s
time=
[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 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=0.420 total
time=
      1.5s
[CV 5/5; 9/400] START bootstrap=True, max_depth=11, max_features=None,
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min_samples_leaf=3, min_samples_split=2, 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=0.446 total
time= 0.7s
[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 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=0.401 total
time=
      0.7s
[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 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=0.420 total
time=
      0.7s
[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; 9/400] END bootstrap=True, max_depth=11, max_features=None,
min samples leaf=3, min samples split=2, n estimators=36;, score=0.424 total
      0.7s[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=0.420 total
time= 0.7s
[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; 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; 8/400] END bootstrap=True, max_depth=None, max_features=None,
min samples leaf=1, min samples split=4, n estimators=52;, score=0.398 total
[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 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=0.413 total
time=
      1.7s
[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=0.392 total
time= 1.7s
[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 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=0.372 total
time=
      1.6s
[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; 8/400] END bootstrap=True, max_depth=None, max_features=None,
min samples leaf=1, min samples split=4, n estimators=52;, score=0.420 total
```

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time=
        1.5s
[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=0.403 total
time=
       0.9s
[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=0.396 total
time= 0.9s
[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 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=0.405 total
time= 0.9s
[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 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=0.416 total
time= 0.9s
[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 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=0.413 total
time=
       1.0s
[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=0.440 total
time=
      1.3s
[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 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=0.414 total
time= 1.3s
[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=0.417 total
time=
      1.4s
[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; 11/400] END bootstrap=True, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=130;, score=0.417 total
[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
```

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[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=0.437 total
time=
      1.4s
[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 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=0.433 total
time=
       2.6s
[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; 12/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=9, n_estimators=156;, score=0.403 total
time=
       2.7s
[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 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=0.418 total
       2.6s
[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=0.379 total
time=
      2.6s
[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 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=0.368 total
time=
       2.7s
[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=0.413 total
time=
       2.1s
[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 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 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=0.390 total
time=
       2.1s
[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 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=0.406 total
time=
[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 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=0.431 total
time=
       2.1s
```

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[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 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=0.395 total
time= 0.7s
[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; 15/400] END bootstrap=False, max depth=16, max features=None,
min samples leaf=3, min samples split=5, n estimators=16;, score=0.402 total
time=
      0.7s
[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 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=0.420 total
[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 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=0.362 total
time=
      0.7s
[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 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=0.383 total
time= 0.6s
[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 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=0.435 total
time=
      1.5s
[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 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=0.390 total
time=
      0.7s
[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 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=0.399 total
time=
      1.5s
[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 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=0.413 total
time=
      1.5s
[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=0.441 total
time=
      1.5s
```

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[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 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=0.394 total
time= 1.6s
[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
       1.0s
time=
[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=0.390 total
time=
      1.0s
[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=0.429 total
time= 0.9s
[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=0.418 total
time=
      1.0s
[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=0.441 total
time= 0.9s
[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=0.398 total
time= 1.8s
[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 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=0.421 total
      1.9s
time=
[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
[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=0.428 total
time=
      1.9s
[CV 3/5; 19/400] START bootstrap=False, max_depth=15, max_features=sqrt,
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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=0.457 total
time= 1.8s
[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=0.409 total
[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; 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=0.418 total
time=
      1.5s
[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=0.385 total
time=
      1.6s
[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; 19/400] END bootstrap=False, max depth=15, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=104;, score=0.401 total
time=
      1.6s
[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 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=0.409 total
[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 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=0.391 total
time=
      1.5s
[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=0.443 total
time= 4.9s
[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=0.412 total
time=
      4.9s
[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 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=0.413 total
```

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time=
        5.1s
[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 5/5; 17/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=3, min samples split=3, n estimators=192;, score=0.438 total
time=
       5.1s
[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=0.413 total
time=
      5.3s
[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=0.413 total
time= 1.0s
[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 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=0.385 total
time=
      1.0s
[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 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=0.428 total
time=
       0.3s
[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 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=0.402 total
time=
      1.0s
[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 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=0.388 total
time= 0.3s
[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 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=0.431 total
time=
      1.0s
[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 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=0.413 total
[CV 2/5; 23/400] START bootstrap=True, max depth=18, max features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=180
```

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[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=0.422 total
time=
      0.9s
[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=0.436 total
time=
      0.3s
[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=0.445 total
time=
      0.3s
[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=0.429 total
time= 1.8s
[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; 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
time= 1.7s
[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=0.414 total
time=
      1.8s
[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=0.420 total
time=
      1.8s
[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=0.426 total
time=
      1.8s
[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=0.379 total
[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 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=0.395 total
time=
       5.0s
```

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[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 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=0.379 total
time= 4.9s
[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 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=0.373 total
time=
      4.9s
[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 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=0.397 total
       5.2s
[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=0.412 total
time=
      2.1s
[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=0.405 total
time=
       2.1s
[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=0.428 total
time=
       2.1s
[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 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=0.423 total
time=
      2.0s
[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 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=0.403 total
time=
       2.1s
[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 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=0.410 total
time=
       1.6s
[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
[CV 1/5; 26/400] END bootstrap=True, max_depth=16, max_features=sqrt,
```

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min_samples_leaf=2, min_samples_split=5, n_estimators=166;, score=0.418 total
time=
      1.7s
[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=0.392 total
time= 1.6s
[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; 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
      1.6s
time=
[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=0.431 total
time=
      1.6s
[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=0.446 total
time= 1.1s
[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=0.427 total
time=
      1.1s
[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 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=0.412 total
time= 1.1s
[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 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=0.416 total
time= 1.1s
[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=0.427 total
time=
      1.1s
[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=0.421 total
time=
       2.8s
[CV 1/5; 29/400] START bootstrap=True, max_depth=5, max_features=None,
```

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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=0.385 total
       2.8s
[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 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=0.408 total
time=
       2.8s
[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 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=0.407 total
time=
        2.9s
[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 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=0.392 total
time=
      2.9s
[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; 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=
      7.7s
[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 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=0.383 total
[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 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=0.412 total
time=
      7.8s
[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 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=0.369 total
time= 7.7s
[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 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=0.390 total
time=
       7.8s
[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; 29/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=114;, score=0.425 total
```

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time=
        1.3s
[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; 29/400] END bootstrap=True, max_depth=5, max_features=None,
min samples leaf=1, min samples split=9, n estimators=114;, score=0.384 total
        1.3s
time=
[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=0.427 total
      1.2s
[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 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 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=0.443 total
time=
      0.8s
[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 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=0.398 total
time= 0.8s
[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=0.412 total
time=
      1.4s
[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 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 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=0.451 total
time=
      1.4s
[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; 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
time= 0.8s
[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=0.403 total
time= 0.8s
[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 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=0.451 total
[CV 5/5; 32/400] START bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=148
```

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[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=0.428 total
time=
      1.5s
[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=0.396 total
time= 1.4s
[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 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=0.417 total
time=
      1.4s
[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 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=0.403 total
time= 1.4s
[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 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=0.429 total
time=
      1.3s
[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 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=0.409 total
time=
      0.4s
[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 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=0.413 total
time=
      0.4s
[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 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=0.410 total
time=
      0.4s
[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 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=0.413 total
      0.4s
[CV 4/5; 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; 33/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=36;, score=0.441 total
time=
       0.4s
```

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[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 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=0.388 total
time= 4.6s
[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 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=0.403 total
time=
      4.6s
[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 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
[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 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=0.431 total
time=
      4.7s
[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 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=0.426 total
time= 4.7s
[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 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=0.396 total
time=
       2.9s
[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; 36/400] END bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=2;, score=0.413 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 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=0.385 total
time=
      0.0s
[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; 36/400] END bootstrap=False, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=2;, score=0.402 total
time=
      0.0s
[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 4/5; 36/400] END bootstrap=False, max_depth=5, max_features=None,
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min_samples_leaf=3, min_samples_split=2, n_estimators=2;, score=0.431 total
time=
      0.0s
[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 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=0.377 total
time= 3.0s
[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] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=2;, score=0.422 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 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=0.399 total
time=
       3.2s
[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 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=0.385 total
time=
       3.0s
[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 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=0.387 total
time=
      3.3s
[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=0.380 total
      1.5s
[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=0.402 total
time= 1.5s
[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
time=
      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=0.390 total
time=
      0.1s
[CV 4/5; 38/400] START bootstrap=False, max depth=9, max features=None,
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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=0.425 total
time= 1.6s
[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 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=0.374 total
time=
      1.6s
[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 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=0.409 total
time=
      0.1s
[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 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=0.435 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 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=0.420 total
time=
      0.1s
[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 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=0.379 total
[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 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=0.407 total
time=
      0.2s
[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 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=0.462 total
time= 0.3s
[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 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=0.407 total
time=
       0.2s
[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; 39/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=3, min samples split=9, n estimators=30;, score=0.395 total
```

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time=
        0.2s
[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 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=0.427 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 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
time= 1.5s
[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; 37/400] END bootstrap=True, max_depth=9, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=88;, score=0.401 total
time=
      1.6s
[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 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=0.401 total
time=
      1.6s
[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 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=0.425 total
time=
      1.7s
[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=0.463 total
time=
      1.5s
[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=0.383 total
time= 1.4s
[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=0.395 total
time=
      1.6s
[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=0.373 total
[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

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[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=0.371 total
time=
      1.4s
[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 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=0.376 total
time=
      1.5s
[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 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=0.442 total
time=
      1.1s
[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 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=0.416 total
time= 1.1s
[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 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=0.424 total
time=
      1.1s
[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 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=0.420 total
time=
      1.1s
[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 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=0.437 total
time=
      1.1s
[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=0.414 total
time=
      0.6s
[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 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=0.420 total
      0.6s
[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 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=0.412 total
time=
       0.6s
```

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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=0.403 total
time= 0.6s
[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=0.453 total
time=
      0.6s
[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 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=0.418 total
[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 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=0.403 total
time=
      3.9s
[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 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=0.403 total
time= 3.9s
[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 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=0.399 total
time=
       3.9s
[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 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=0.417 total
time=
      3.9s
[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 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=0.432 total
time=
      1.0s
[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=0.421 total
time=
       1.0s
[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
[CV 4/5; 44/400] END bootstrap=True, max_depth=11, max_features=None,
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min samples leaf=2, min samples split=5, n estimators=48;, score=0.409 total
time=
      1.0s
[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 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=0.417 total
time= 1.1s
[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 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=0.438 total
       1.0s
time=
[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 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=0.428 total
time=
      1.1s
[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 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=0.399 total
time= 1.1s
[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=0.420 total
time=
      1.1s
[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=0.414 total
      1.2s
[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; 45/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=140;, score=0.435 total
time= 1.2s
[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=0.420 total
      1.3s
time=
[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 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=0.399 total
time=
      1.3s
[CV 2/5; 48/400] START bootstrap=True, max_depth=6, max_features=sqrt,
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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=0.424 total
      1.3s
[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 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=0.410 total
time=
      1.3s
[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 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=0.452 total
time=
       1.3s
[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=0.422 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=0.391 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; 48/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min samples leaf=3, min samples split=8, n estimators=84;, score=0.422 total
[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=0.409 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=0.453 total 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=0.401 total
time=
       3.7s
[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 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=0.402 total

```
time=
        3.7s
[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=0.402 total
time=
       3.8s
[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 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=0.426 total
time=
       3.7s
[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 4/5; 46/400] END bootstrap=False, max depth=8, max features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=148;, score=0.416 total
time= 4.1s
[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=0.384 total
time=
       2.5s
[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=0.416 total
time=
       2.5s
[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 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=0.372 total
time=
       2.5s
[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=0.377 total
time=
       2.5s
[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 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 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=0.385 total
time=
       2.5s
[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=0.417 total
[CV 1/5; 52/400] START bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=140
```

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[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=0.443 total
time=
      0.6s
[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 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=0.413 total
time=
      1.6s
[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 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=0.413 total
time=
      1.7s
[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 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=0.403 total
time= 0.6s
[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; 50/400] END bootstrap=False, max depth=12, max features=sqrt,
min samples leaf=2, min samples split=7, n estimators=130;, score=0.406 total
time=
      1.7s
[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 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=0.413 total
time=
      0.6s
[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 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=0.418 total
time=
      0.6s
[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; 51/400] END bootstrap=True, max depth=14, max features=sqrt,
min samples leaf=2, min samples split=5, n estimators=68;, score=0.406 total
time=
      0.7s
[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=0.413 total
[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=0.413 total
time=
       2.3s
```

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[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=0.385 total
time=
      2.3s
[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 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=0.402 total
time=
       2.4s
[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 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=0.422 total
[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=0.431 total
time=
      2.7s
[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 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=0.396 total
time= 3.3s
[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 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=0.418 total
time=
       3.4s
[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 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=0.374 total
time=
      3.4s
[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 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=0.383 total
time=
      3.4s
[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; 53/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=190;, score=0.409 total
time=
        3.3s
[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
[CV 1/5; 54/400] END bootstrap=True, max_depth=19, max_features=None,
```

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min samples leaf=2, min samples split=6, n estimators=84;, score=0.435 total
time=
      2.3s
[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; 54/400] END bootstrap=True, max depth=19, max features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=84;, score=0.407 total
time= 2.2s
[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 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=0.380 total
time=
       0.3s
[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 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=0.405 total
time=
       2.3s
[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 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=0.414 total
time=
       2.4s
[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; 56/400] END bootstrap=False, max_depth=12, max_features=None,
min samples leaf=2, min samples split=8, n estimators=10;, score=0.403 total
time=
      0.3s
[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 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=0.384 total
time= 0.3s
[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 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=0.366 total
time= 0.3s
[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 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=0.440 total
time=
      1.6s
[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 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=0.389 total
time=
       0.4s
[CV 5/5; 57/400] START bootstrap=False, max_depth=10, max_features=sqrt,
```

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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=0.434 total
time=
       2.3s
[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; 55/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160;, score=0.416 total
time=
      1.6s
[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 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=0.395 total
time=
      1.7s
[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; 55/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160;, score=0.406 total
time=
      1.7s
[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; 55/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=160;, score=0.411 total
time=
      1.6s
[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=0.413 total
[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 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=0.425 total
time=
      1.7s
[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 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=0.425 total
time= 1.7s
[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 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=0.413 total
time=
      1.7s
[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 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=0.406 total
```

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time=
        2.0s
[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 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=0.422 total
time=
        1.7s
[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 4/5; 57/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=184;, score=0.410 total
time=
       2.0s
[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; 57/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=184;, score=0.418 total
time=
      2.1s
[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 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=0.440 total
time=
      1.7s
[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; 57/400] END bootstrap=False, max_depth=10, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=184;, score=0.427 total
time=
       2.1s
[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 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=0.379 total
time=
      0.2s
[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 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=0.449 total
time= 0.2s
[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 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=0.421 total
time=
      0.2s
[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=0.398 total
[CV 4/5; 61/400] START bootstrap=True, max depth=12, max features=None,
```

min\_samples\_leaf=2, min\_samples\_split=7, n\_estimators=184

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[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=0.440 total
time=
      0.2s
[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=0.402 total
time=
      1.5s
[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=0.410 total
time=
      1.5s
[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 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=0.421 total
time= 1.6s
[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 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=0.420 total
time=
      1.5s
[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 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=0.407 total
time=
      1.5s
[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 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=0.412 total
time= 1.0s
[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 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=0.390 total
time=
      1.0s
[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=0.431 total
      1.0s
[CV 3/5; 63/400] START bootstrap=True, max depth=19, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=164
[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=0.409 total
time=
      1.1s
```

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[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=0.420 total
time= 1.1s
[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 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=0.392 total
time=
      1.6s
[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 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=0.439 total
[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 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=
      3.9s
[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=0.412 total
      3.8s
[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; 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=0.416 total
time=
       3.9s
[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; 63/400] END bootstrap=True, max depth=19, max features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=164;, score=0.396 total
time=
      1.7s
[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 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=0.402 total
time=
      1.6s
[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 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=0.434 total
time=
       1.7s
[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
[CV 4/5; 61/400] END bootstrap=True, max_depth=12, max_features=None,
```

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min_samples_leaf=2, min_samples_split=7, n_estimators=184;, score=0.412 total
time=
      4.0s
[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 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=0.438 total
time= 4.0s
[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 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=0.424 total
       0.6s
time=
[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; 64/400] END bootstrap=True, max_depth=8, max_features=sqrt,
min samples leaf=3, min samples split=3, n estimators=94;, score=0.401 total
time=
      0.6s
[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; 64/400] END bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=94;, score=0.422 total
time= 0.6s
[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; 64/400] END bootstrap=True, max_depth=8, max_features=sqrt,
min samples leaf=3, min samples split=3, n estimators=94;, score=0.402 total
time= 0.6s
[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=0.441 total
time= 0.6s
[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; 65/400] END bootstrap=False, max depth=14, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=66;, score=0.384 total
time= 2.5s
[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; 65/400] END bootstrap=False, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=66;, score=0.399 total
       2.5s
time=
[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 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=0.372 total
time=
       2.5s
[CV 3/5; 67/400] START bootstrap=True, max_depth=20, max_features=sqrt,
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min_samples_leaf=3, min_samples_split=5, n_estimators=98
[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=0.431 total
time=
       2.3s
[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 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=0.418 total
time=
       2.6s
[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 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=0.406 total
time=
        2.3s
[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 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=0.385 total
time=
      2.5s
[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 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=0.387 total
time=
       2.2s
[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 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=0.376 total
time=
[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 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=0.412 total
time=
       2.3s
[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 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=0.381 total
time= 1.0s
[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 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=0.418 total
time=
       1.0s
[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 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=0.410 total
```

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time=
        1.0s
[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 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=0.399 total
time=
       1.1s
[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 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=0.424 total
time=
      1.1s
[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=0.425 total
time=
      1.4s
[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 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=0.391 total
time=
      1.4s
[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 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=0.425 total
time=
       1.4s
[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=0.401 total
time=
      1.4s
[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=0.467 total
      1.4s
time=
[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 2/5; 70/400] END bootstrap=False, max_depth=20, max_features=sqrt,
min_samples_leaf=2, min_samples_split=9, n_estimators=86;, score=0.398 total
time=
      1.4s
[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 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=0.422 total
[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
```

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[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=0.436 total
time=
       3.7s
[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 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=0.409 total
time=
       3.7s
[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 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=0.425 total
time=
       3.8s
[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 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
      1.5s
[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 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=0.380 total
time= 1.4s
[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 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=0.427 total
time=
       3.8s
[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 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=0.407 total
time=
      3.9s
[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 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=0.405 total
time=
      1.5s
[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 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=0.439 total
[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 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=0.412 total
time=
       0.0s
```

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[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 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=0.366 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 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=0.395 total
time=
      0.0s
[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 3/5; 71/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=1, min_samples_split=5, n_estimators=134;, score=0.410 total
[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 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=0.394 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 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= 1.2s
[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=0.442 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 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=0.410 total
time=
      1.1s
[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=0.449 total
      1.1s
time=
[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=0.435 total
time=
       1.6s
[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
[CV 3/5; 72/400] END bootstrap=True, max_depth=19, max_features=sqrt,
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min_samples_leaf=1, min_samples_split=7, n_estimators=154;, score=0.413 total
time=
      1.7s
[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 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=0.416 total
time= 1.6s
[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 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
       1.6s
time=
[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 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=
      1.7s
[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 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=0.433 total
time= 1.0s
[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 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=0.399 total
time=
      1.0s
[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=0.390 total
      1.0s
[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 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=0.379 total
time= 1.0s
[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; 74/400] END bootstrap=False, max_depth=18, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=62;, score=0.415 total
      1.0s
time=
[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=0.428 total
time=
       0.8s
[CV 1/5; 77/400] START bootstrap=True, max_depth=8, max_features=None,
```

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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=0.387 total
      0.8s
[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 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=0.421 total
time=
      0.8s
[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 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=0.424 total
time=
       0.8s
[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 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=0.468 total
time=
      1.0s
[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=0.435 total
time=
      1.0s
[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=0.402 total
[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=0.439 total
time=
      1.0s
[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=0.407 total
time= 1.1s
[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=0.460 total
time=
       1.1s
[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 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=0.373 total
```

```
time=
        2.2s
[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 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=0.390 total
time=
        2.1s
[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 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=0.381 total
time=
       2.2s
[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 2/5; 76/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=1, min_samples_split=9, n_estimators=64;, score=0.396 total
time=
      2.2s
[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 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=0.372 total
time=
       2.3s
[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 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=0.412 total
time=
       1.5s
[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 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=0.412 total
time=
       1.5s
[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=0.428 total
time=
      1.5s
[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 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=0.406 total
time=
      1.5s
[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=0.404 total
[CV 5/5; 80/400] START bootstrap=False, max_depth=10, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=122
```

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[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=0.420 total
time=
       2.5s
[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 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=0.412 total
time=
       2.4s
[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 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=0.424 total
time=
       2.4s
[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 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=0.381 total
time=
       2.5s
[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; 79/400] END bootstrap=True, max depth=6, max features=None,
min samples leaf=1, min samples split=6, n estimators=194;, score=0.463 total
time=
      2.5s
[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=0.428 total
time=
      1.3s
[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; 81/400] END bootstrap=False, max depth=6, max features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=182;, score=0.399 total
time=
      1.3s
[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=0.410 total
time= 1.3s
[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 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 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=0.420 total
      1.3s
[CV 4/5; 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=0.446 total
time=
      1.4s
```

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[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=0.446 total
time= 0.6s
[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 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=0.429 total
time=
      0.6s
[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 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=0.409 total
[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; 80/400] END bootstrap=False, max_depth=10, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=122;, score=0.385 total
time=
      3.6s
[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 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=0.396 total
time= 3.6s
[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 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=0.398 total
time=
      0.7s
[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 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=0.418 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 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=0.391 total
      3.6s
[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=0.380 total
      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; 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,
```

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min samples leaf=1, min samples split=5, n estimators=14;, score=0.403 total
time=
      0.1s
[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 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=0.405 total
time= 0.1s
[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=0.416 total
       3.7s[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=0.452 total time=
                          0.1s
[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 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 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=0.419 total
time= 0.6s
[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 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=0.404 total
time=
      3.7s
[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=0.406 total
      1.9s
[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 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=0.399 total
time= 1.9s
[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 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=0.427 total
      1.9s
time=
[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 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=0.444 total
time=
      1.9s
[CV 4/5; 86/400] START bootstrap=True, max_depth=5, max_features=None,
```

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min_samples_leaf=2, min_samples_split=9, n_estimators=116
[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=0.422 total
       2.0s
[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 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=0.425 total
time=
       2.0s
[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 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=0.380 total
time=
        2.0s
[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 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=0.420 total
time=
      2.1s
[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 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=0.410 total
time=
      2.0s
[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; 85/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=8, n_estimators=182;, score=0.462 total
[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 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=0.384 total
time=
      1.3s
[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 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=0.425 total
time= 1.3s
[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 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=0.422 total
time=
       1.3s
[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; 86/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=116;, score=0.406 total
```

```
time=
        1.3s
[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 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=0.429 total
time=
[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=0.385 total
time=
      1.2s
[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 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=0.453 total
time=
      1.3s
[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=0.425 total
time=
      1.2s
[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=0.406 total
time=
       1.2s
[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 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=0.394 total
time=
      0.2s
[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 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=0.402 total
time= 0.3s
[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 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=0.361 total
time=
      0.3s
[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 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=0.383 total
[CV 3/5; 90/400] START bootstrap=False, max_depth=13, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=32
```

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[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=0.386 total
time=
      0.2s
[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 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=0.449 total
time=
      1.4s
[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 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=0.394 total
time=
      0.8s
[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 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=0.407 total
time= 0.8s
[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 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=0.412 total
      0.9s
[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=0.444 total
time=
      0.8s
[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; 91/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=152
[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=0.417 total
time=
      1.0s
[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 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=0.380 total
time=
      1.2s
[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 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=0.402 total
[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 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=
      1.2s
```

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[CV 3/5; 92/400] START bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168
[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=0.417 total
time= 1.4s
[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 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=0.387 total
time=
      1.3s
[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=0.429 total
[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 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=0.387 total
time=
      1.2s
[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=0.409 total
      1.0s
[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 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; 92/400] END bootstrap=False, max depth=5, max features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=168;, score=0.440 total
time=
      1.2s
[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 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=0.448 total
time=
      1.1s
[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=0.432 total
time=
      0.5s
[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 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=0.407 total
time=
       0.5s
[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
[CV 2/5; 93/400] END bootstrap=True, max_depth=10, max_features=None,
```

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min samples leaf=3, min samples split=2, n estimators=28;, score=0.406 total
time=
      0.6s
[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 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=0.425 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 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=0.405 total
time=
      0.5s
[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 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=0.446 total
time=
      0.5s
[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=0.390 total
time= 0.4s
[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=0.425 total
time=
      0.4s
[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=0.391 total
time= 0.4s
[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=0.424 total
time= 0.4s
[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=0.425 total
      0.9s
time=
[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=0.390 total
time=
      0.9s
[CV 2/5; 96/400] START bootstrap=False, max depth=5, max features=None,
```

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min_samples_leaf=2, min_samples_split=5, n_estimators=186
[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=0.416 total
time= 0.9s
[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; 95/400] END bootstrap=True, max depth=5, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=82;, score=0.417 total
time=
      0.9s
[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=0.459 total
time=
       0.9s
[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 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=0.377 total
time=
      5.2s
[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=0.399 total
time=
       5.3s
[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 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=0.384 total
[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=0.390 total
time=
      5.3s
[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=0.383 total
time= 5.5s
[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=0.387 total
time=
       3.0s
[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 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=0.427 total
```

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time=
        1.5s
[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 1/5; 96/400] END bootstrap=False, max_depth=5, max_features=None,
min samples leaf=2, min samples split=5, n estimators=186;, score=0.412 total
time=
       3.1s
[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 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=0.428 total
time=
      1.6s
[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; 96/400] END bootstrap=False, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=186;, score=0.402 total
time=
       3.0s
[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 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=0.428 total
time=
      1.6s
[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 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=0.410 total
time=
       1.5s
[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 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=0.432 total
time=
       3.0s
[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; 97/400] END bootstrap=True, max_depth=12, max_features=None,
min samples leaf=1, min samples split=9, n estimators=72;, score=0.445 total
time=
      1.6s
[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 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=0.422 total
time=
      3.1s
[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=0.428 total
[CV 1/5; 100/400] START bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=14
```

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[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=0.403 total
time=
      0.6s
[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; 98/400] END bootstrap=True, max depth=11, max features=sqrt,
min samples leaf=3, min samples split=7, n estimators=78;, score=0.431 total
time=
      0.6s
[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 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=0.426 total
time=
      0.6s
[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 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=0.421 total
time= 0.6s
[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 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=0.444 total
time= 0.2s
[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 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=0.390 total
time=
      0.2s
[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 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=0.370 total
time=
      0.2s
[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=0.373 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; 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
      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 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=0.405 total
time=
       2.1s
```

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[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 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=0.438 total
time= 2.1s
[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 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=0.398 total
time=
       2.2s
[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 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=0.438 total
[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 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=0.388 total
time=
       2.2s
[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; 101/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=180;, score=0.407 total
time= 1.7s
[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 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=0.392 total
time=
      1.7s
[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 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=0.427 total
time=
      1.7s
[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 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=0.413 total
time=
      1.8s
[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; 99/400] END bootstrap=True, max depth=20, max features=None,
min samples leaf=2, min samples split=5, n estimators=76;, score=0.433 total
time=
        2.3s
[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
[CV 1/5; 103/400] END bootstrap=True, max_depth=20, max_features=sqrt,
```

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min samples leaf=1, min samples split=8, n estimators=94;, score=0.443 total
time=
      1.0s
[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 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=0.399 total
time= 1.0s
[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 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=0.402 total
      1.0s
[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 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=0.398 total
time=
      1.0s
[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 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=0.402 total
time= 1.1s
[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=0.422 total
time=
      1.8s
[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=0.402 total
time= 1.8s
[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; 102/400] END bootstrap=False, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=190;, score=0.417 total
time= 1.7s
[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 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=0.416 total
      1.7s
time=
[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 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=0.452 total
time=
      1.8s
[CV 1/5; 105/400] END bootstrap=True, max_depth=18, max_features=None,
```

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min samples leaf=2, min samples split=6, n estimators=16;, score=0.435 total
time=
      0.4s
[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; 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=0.398 total
time=
      0.4s
[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=0.401 total
time=
      0.4s
[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=0.420 total
time=
      0.4s
[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=0.415 total
time=
      0.4s
[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 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=0.391 total
[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=0.427 total
      0.6s[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; 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=0.413 total
time= 0.6s
[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 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=0.436 total
time=
      0.6s
[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 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=0.440 total
```

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time=
       1.7s
[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 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=
       1.7s
[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 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=0.438 total
time= 0.6s
[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 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=0.401 total
time=
      1.8s
[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 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=0.412 total
time=
      1.8s
[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=0.430 total
time=
       2.0s
[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 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=0.420 total
time=
       3.8s
[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; 108/400] END bootstrap=True, max_depth=15, max_features=None,
min samples leaf=3, min samples split=9, n estimators=162;, score=0.421 total
time= 3.9s
[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 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=0.424 total
time=
      3.9s
[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; 108/400] END bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=162;, score=0.421 total
[CV 4/5; 109/400] START bootstrap=True, max_depth=8, max_features=sqrt,
min_samples_leaf=2, min_samples_split=4, n_estimators=56
```

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[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=0.434 total
time=
       3.7s
[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 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=0.425 total
time= 0.4s
[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 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=0.444 total
time=
      0.4s
[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 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=0.395 total
time= 0.4s
[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 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=0.384 total
time= 0.4s
[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; 109/400] END bootstrap=True, max depth=8, max features=sqrt,
min samples leaf=2, min samples split=4, n estimators=56;, score=0.468 total
time=
      0.4s
[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; 107/400] END bootstrap=False, max depth=17, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=140;, score=0.388 total
time=
      5.8s
[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 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=0.421 total
time=
      1.4s
[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 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=0.398 total
[CV 3/5; 111/400] START bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=128
[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=0.421 total
time=
      1.4s
```

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[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 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=0.385 total
time= 6.0s
[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; 110/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min samples leaf=3, min samples split=3, n estimators=154;, score=0.399 total
time=
      1.5s
[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 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=0.375 total
       5.9s
[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 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=0.446 total
time=
      1.5s
[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; 107/400] END bootstrap=False, max_depth=17, max_features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=140;, score=0.384 total
time= 6.1s
[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 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=0.407 total
time=
      1.5s
[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=0.413 total
time= 0.9s
[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=0.407 total
time=
      0.9s
[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 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=0.416 total
time=
       0.9s
[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
[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=0.416 total
time=
      0.9s
[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 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=0.433 total
time= 0.9s
[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; 111/400] END bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=128;, score=0.428 total
      1.6s
time=
[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 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=
      1.6s
[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; 111/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=128;, score=0.427 total
time= 1.7s
[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 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=0.405 total
time= 1.6s
[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 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=0.466 total
[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=0.421 total
time= 1.8s
[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 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=0.425 total
      1.8s
time=
[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
[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=0.416 total
time=
      1.7s
[CV 3/5; 115/400] START bootstrap=True, max_depth=10, max_features=None,
```

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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=0.416 total
time= 1.9s
[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=0.407 total
time=
      1.9s
[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 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=0.421 total
time=
       3.9s
[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 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=0.425 total
time= 4.0s
[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
time=
      4.0s
[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; 114/400] END bootstrap=True, max_depth=17, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=148;, score=0.418 total
[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=0.431 total
time=
      4.0s
[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= 3.3s
[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 2/5; 115/400] END bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=178;, score=0.409 total
time=
       3.3s
[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 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=0.429 total
```

```
time=
        3.3s
[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 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=0.448 total
time=
       3.4s
[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 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=0.403 total
time=
      3.5s
[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=0.429 total
time=
      0.8s
[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 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=0.383 total
time= 0.8s
[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 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=0.410 total
time=
       0.8s
[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=0.427 total
time=
      0.8s
[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=0.456 total
time= 0.8s
[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 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=0.417 total
time=
      4.2s
[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 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=0.431 total
[CV 2/5; 119/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=28
```

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[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=0.424 total
time=
      4.2s
[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 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=0.409 total
time=
      4.2s
[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; 119/400] END bootstrap=True, max_depth=16, max_features=None,
min samples leaf=2, min samples split=4, n estimators=28;, score=0.398 total
time=
      0.7s
[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=0.436 total
time= 0.7s
[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 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=0.437 total
time= 4.3s
[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 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=0.409 total
time=
      0.7s
[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 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=0.392 total
time=
      0.7s
[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; 119/400] END bootstrap=True, max_depth=16, max_features=None,
min samples leaf=2, min samples split=4, n estimators=28;, score=0.435 total
time=
      0.7s
[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 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=0.379 total
      1.5s
[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 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=
       1.6s
```

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[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 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=0.399 total
time= 1.8s
[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=0.396 total
time=
      1.6s
[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 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=0.416 total
[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=0.410 total
time=
      6.1s
[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=0.405 total
time= 6.1s
[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 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=0.384 total
time=
      6.1s
[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 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=0.381 total
time=
      6.2s
[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=0.398 total
time=
      6.3s
[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=0.412 total
time=
        2.6s
[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
[CV 4/5; 121/400] END bootstrap=False, max_depth=5, max_features=None,
```

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min_samples_leaf=2, min_samples_split=9, n_estimators=158;, score=0.432 total
time=
      2.6s
[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=0.402 total
time=
      2.6s
[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=0.385 total
time=
       2.6s
[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 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 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=0.422 total
time=
       2.6s
[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=0.401 total
time=
       2.6s
[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 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=0.401 total
time=
      2.6s
[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 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=0.398 total
       2.8s
[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=0.417 total
time= 2.6s
[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; 122/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=106;, score=0.419 total
       2.7s
time=
[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 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=0.385 total
time=
       2.4s
[CV 1/5; 125/400] START bootstrap=True, max_depth=10, max_features=None,
```

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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=0.421 total
       2.5s[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=0.421 total time=
                          2.6s
[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; 125/400] START bootstrap=True, max_depth=10, max_features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=96
[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=0.410 total
time=
       2.5s
[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; 123/400] END bootstrap=True, max_depth=6, max_features=None,
min_samples_leaf=3, min_samples_split=9, n_estimators=196;, score=0.466 total
time=
      2.5s
[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=0.429 total
time=
      2.7s
[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 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=0.412 total
[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 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=0.420 total
time=
       2.7s
[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 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=0.416 total
time=
       2.8s
[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 1/5; 125/400] END bootstrap=True, max_depth=10, max_features=None,
min samples leaf=2, min samples split=8, n estimators=96;, score=0.425 total
time=
      1.9s
[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=0.414 total
time=
      1.8s
```

[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; 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; 124/400] END bootstrap=True, max_depth=12, max_features=None,
min samples leaf=3, min samples split=6, n estimators=128;, score=0.437 total
time=
       2.8s
[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 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=0.418 total
time= 1.9s
[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 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=0.401 total
time= 1.9s
[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=0.385 total
time= 0.3s
[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; 127/400] END bootstrap=True, max_depth=9, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=14;, score=0.443 total
time=
       0.3s
[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 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=0.427 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; 127/400] END bootstrap=True, max_depth=9, max_features=None,
min samples leaf=2, min samples split=3, n estimators=14;, score=0.399 total
time= 0.3s
[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 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=0.425 total
time=
      1.1s
[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 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=0.449 total
[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 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=0.413 total
time=
      1.2s
[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 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=0.431 total
time= 0.3s
[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; 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
time=
      1.1s
[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=0.401 total
time= 1.2s
[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=0.415 total
      1.1s
[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=0.420 total
time=
      1.1s
[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 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=0.414 total
time= 1.1s
[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=0.421 total
time=
      1.1s
[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 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=0.442 total
[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=0.437 total
time=
      1.1s
```

[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=0.392 total time= 0.7s[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 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=0.429 total time= 0.7s [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 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=0.394 total 0.7s [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; 130/400] END bootstrap=False, max depth=19, max features=sqrt, min\_samples\_leaf=3, min\_samples\_split=7, n\_estimators=44;, score=0.390 total time= 0.7s [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=0.411 total time= 0.7s[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= 1.0s [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=0.418 total time= 1.0s [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 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=0.416 total time= 0.9s[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 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=0.418 total time= 1.0s [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 [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=0.399 total time= 1.0s [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=0.431 total time= 0.9s[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 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=0.407 total 0.9stime= [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=0.394 total time= 0.9s[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 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=0.420 total time= 0.9s[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=0.449 total time= 0.9s [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 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=0.413 total [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 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=0.444 total time= 4.7s[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=0.428 total 4.7stime= [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 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=0.416 total time= 4.5s[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 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= 4.7s[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=0.412 total time= 2.2s [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 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=0.390 total time= 2.2s [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 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=0.406 total time= 2.2s [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=0.422 total time= 2.2s [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=0.429 total [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=0.439 total time= 0.5s[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=0.391 total time= 0.5s[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=0.407 total time= 0.5s[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 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=0.390 total

```
0.5s
time=
[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; 135/400] END bootstrap=True, max_depth=None, max_features=None,
min samples leaf=2, min samples split=6, n estimators=16;, score=0.431 total
time=
       0.5s
[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=0.417 total
time=
      1.3s
[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=0.429 total
time=
      1.4s
[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=0.416 total
time=
      1.4s
[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=0.398 total
time=
       1.4s
[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=0.435 total
time=
      1.4s
[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=0.435 total
time= 0.6s
[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=0.395 total
time=
      0.6s
[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=0.418 total
[CV 3/5; 138/400] START bootstrap=True, max_depth=16, max_features=None,
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=0.390 total
time=
      0.6s
[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; 137/400] END bootstrap=True, max_depth=17, max_features=None,
min samples leaf=2, min samples split=9, n estimators=24;, score=0.429 total
time=
      0.6s
[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 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=0.405 total
time=
      4.7s
[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 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=0.424 total
time= 5.0s
[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 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=0.405 total
time= 4.8s
[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 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=0.412 total
time=
       5.2s
[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=0.429 total
time=
      4.9s
[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 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=0.424 total
time=
       2.8s
[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 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=0.429 total
[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 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=0.418 total
time=
       2.8s
```

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[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=0.433 total
time= 2.6s
[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 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=0.401 total
time=
       2.8s
[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 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=0.391 total
[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; 140/400] END bootstrap=True, max_depth=19, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=136;, score=0.398 total
time=
      3.5s
[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 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=0.379 total
time= 4.8s
[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 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=0.401 total
time=
      5.0s
[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 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=0.405 total
time=
      3.7s
[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=0.413 total
time=
      3.7s
[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 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=0.427 total
time=
       0.6s
[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
[CV 1/5; 140/400] END bootstrap=True, max_depth=19, max_features=None,
```

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min_samples_leaf=2, min_samples_split=3, n_estimators=136;, score=0.425 total
time=
      3.8s
[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 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=0.413 total
time= 0.1s
[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 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=0.385 total
time=
[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 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=0.390 total
time=
      0.2s
[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 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=0.405 total
time= 0.2s
[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; 139/400] END bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=118;, score=0.376 total
time=
      4.9s
[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=0.433 total
time=
      3.7s
[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 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=0.420 total
time= 0.2s
[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=0.432 total
time=
      0.2s
[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 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=0.385 total
time=
      0.6s
[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 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=0.410 total
time= 0.6s
[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 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=0.436 total
time=
      0.7s
[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=0.444 total
time=
      0.6s
[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 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=0.413 total
time=
      0.7s
[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 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=0.391 total
time=
      0.8s
[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 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=0.432 total
[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=0.405 total
time=
      0.8s
[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 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=0.420 total
time= 0.7s
[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 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=0.431 total
time=
      0.2s
[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 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=0.387 total
```

```
0.2s
time=
[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 3/5; 145/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min samples leaf=2, min samples split=4, n estimators=30;, score=0.409 total
time=
       0.2s
[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=0.440 total
time= 0.2s
[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 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=0.448 total
time= 0.2s
[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 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=0.425 total
time= 1.1s
[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=0.399 total
time=
      1.1s
[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=0.421 total
time=
      1.1s
[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=0.406 total
time= 1.1s
[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=0.452 total
time=
      1.2s
[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=0.438 total
[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
```

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[CV 2/5; 146/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min_samples_leaf=3, min_samples_split=9, n_estimators=168;, score=0.398 total
time=
      1.7s
[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 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=0.429 total
time=
      1.4s
[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 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=0.425 total
time=
      1.5s
[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=0.431 total
time= 1.7s
[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=0.412 total
time=
      1.8s
[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 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=0.406 total
time=
      1.7s
[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 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=0.424 total
time=
      1.5s
[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 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=0.412 total
time=
      1.4s
[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=0.427 total
[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 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=0.396 total
time=
      1.4s
```

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[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 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=0.437 total
time= 1.3s
[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 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=0.449 total
time=
      1.5s
[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 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=0.403 total
[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 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=0.410 total
time=
      1.4s
[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 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=0.425 total
time= 1.5s
[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; 151/400] END bootstrap=False, max_depth=6, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=8;, score=0.429 total
time= 0.1s
[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 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=0.379 total
time=
      1.5s
[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=0.392 total
time= 0.1s
[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 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=0.413 total
time=
       1.5s
[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
[CV 5/5; 150/400] END bootstrap=True, max_depth=5, max_features=None,
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min_samples_leaf=2, min_samples_split=5, n_estimators=140;, score=0.457 total
time=
      1.5s
[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 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=0.417 total
time= 0.1s
[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=0.433 total
      0.1s
[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=0.435 total
time=
      0.1s
[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 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=0.418 total
time= 1.7s
[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 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=0.385 total
time=
      1.8s
[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 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=0.402 total
time= 1.8s
[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 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=0.413 total
time= 1.8s
[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; 152/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=106;, score=0.431 total
time=
      1.8s
[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 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=0.422 total
time=
      1.9s
[CV 5/5; 153/400] START bootstrap=False, max_depth=9, max_features=sqrt,
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min\_samples\_leaf=3, min\_samples\_split=6, n\_estimators=68 [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=0.402 total time= 0.7s[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 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=0.402 total time= 0.7s[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=0.414 total time= 0.7s[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; 153/400] END bootstrap=False, max\_depth=9, max\_features=sqrt, min samples leaf=3, min samples split=6, n estimators=68;, score=0.414 total time= 0.7s [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; 153/400] END bootstrap=False, max depth=9, max features=sqrt, min\_samples\_leaf=3, min\_samples\_split=6, n\_estimators=68;, score=0.444 total time= 0.7s [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 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=0.406 total [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 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=0.366 total time= 5.9s[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 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= 6.1s[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 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=0.384 total time= 6.2s[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 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=0.378 total

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6.0s
time=
[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 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=0.380 total
time=
        1.0s
[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=0.394 total
      1.0s
[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 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; 154/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=28;, score=0.381 total
time=
      1.0s
[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 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=0.373 total
time=
      1.0s
[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 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=0.393 total
time=
       1.0s
[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 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=0.414 total
time=
       0.7s
[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
time=
      0.7s
[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 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 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=
      0.7s
[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=0.392 total
[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

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[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=0.412 total
time=
      0.7s
[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; 155/400] END bootstrap=True, max depth=6, max features=None,
min samples leaf=3, min samples split=3, n estimators=156;, score=0.420 total
time= 1.9s
[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 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=0.384 total
time=
       2.0s
[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 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=0.428 total
       2.0s
[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 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=0.414 total
time=
      2.0s
[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 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=0.385 total
time=
      1.1s
[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 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=0.470 total
time=
      2.0s
[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; 157/400] END bootstrap=True, max_depth=5, max_features=None,
min samples leaf=2, min samples split=9, n estimators=104;, score=0.422 total
time=
      1.1s
[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 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=0.432 total
[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 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=0.409 total
time=
      1.1s
```

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[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 5/5; 157/400] END bootstrap=True, max depth=5, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=104;, score=0.452 total
time= 1.1s
[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=0.409 total
time=
       2.3s
[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 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=0.422 total
[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 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=0.405 total
time=
       2.3s
[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=0.432 total
time= 2.4s
[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 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=0.436 total
time=
       3.0s
[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 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=0.457 total
time=
      2.5s
[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 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=0.394 total
time=
      3.1s
[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 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=0.373 total
time=
       3.1s
[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
[CV 5/5; 158/400] END bootstrap=False, max_depth=18, max_features=sqrt,
```

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min_samples_leaf=2, min_samples_split=4, n_estimators=186;, score=0.422 total
time=
      3.0s
[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 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=0.380 total
time= 3.1s
[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 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=0.407 total
      0.9s
time=
[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 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=0.438 total
time=
      0.9s
[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 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=0.409 total
time= 0.9s
[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 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=0.410 total
time=
      1.0s
[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 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=0.430 total
time= 0.9s
[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=0.425 total
time= 1.7s
[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 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=0.380 total
time=
      1.7s
[CV 2/5; 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; 161/400] END bootstrap=True, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=156;, score=0.459 total
time=
      1.6s
```

[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=0.410 total time= 1.7s[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 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 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=0.417 tot
- min\_samples\_leaf=2, min\_samples\_split=2, n\_estimators=18;, score=0.417 total time= 0.3s
- [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 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=0.395 total time= 0.3s
- [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; 161/400] END bootstrap=True, max\_depth=5, max\_features=None, min\_samples\_leaf=2, min\_samples\_split=2, n\_estimators=156;, score=0.421 total time= 1.9s
- [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 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=0.379 total time= 0.3s
- [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 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=0.416 total time= 0.3s
- [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 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=0.411 total time= 0.3s
- [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 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=0.388 total time= 3.3s
- [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 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=0.394 total time= 3.4s
- [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 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=0.369 total

```
time=
        3.4s
[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; 162/400] END bootstrap=False, max_depth=18, max_features=None,
min samples leaf=2, min samples split=5, n estimators=76;, score=0.387 total
time=
       3.4s
[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 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=0.385 total
time= 3.4s
[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=0.388 total
time=
      5.1s
[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 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=0.373 total
time=
      5.0s
[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 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=0.402 total
time=
       5.0s
[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 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=0.372 total
time=
       5.1s
[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 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=0.387 total
      5.2s
time=
[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; 166/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=34;, score=0.443 total
time=
      0.3s
[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; 166/400] END bootstrap=True, max_depth=13, max_features=sqrt,
min_samples_leaf=3, min_samples_split=6, n_estimators=34;, score=0.414 total
[CV 2/5; 167/400] START bootstrap=True, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=134
```

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[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=0.399 total
time=
      0.3s
[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 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=0.398 total
time= 0.3s
[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 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=0.434 total
time=
      0.3s
[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=0.429 total
time= 4.6s
[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=0.402 total
time= 4.7s
[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=0.420 total
time=
       4.7s
[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 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=0.440 total
time=
      4.6s
[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 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=0.413 total
time=
      4.7s
[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=0.439 total
[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=0.402 total
time=
      1.2s
```

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[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 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=0.409 total
time= 1.2s
[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 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=0.440 total
time=
      1.2s
[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 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=0.420 total
[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=0.416 total
time=
      3.4s
[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=0.410 total
time= 3.4s
[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 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=0.416 total
time=
       3.4s
[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=0.406 total
time=
      3.4s
[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 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=0.426 total
time=
       3.6s
[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=0.432 total
time=
      1.9s
[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
[CV 2/5; 169/400] END bootstrap=True, max_depth=20, max_features=sqrt,
```

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min_samples_leaf=2, min_samples_split=8, n_estimators=168;, score=0.409 total
time=
      1.7s
[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= 1.8s
[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=0.402 total
      1.7s
[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=0.416 total
time=
      1.8s
[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 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=0.412 total
time=
       2.9s
[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 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=0.402 total
time=
      2.7s
[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 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=0.387 total
[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 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=0.432 total
time=
       2.8s
[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 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=0.383 total
time=
      0.2s
[CV 5/5; 172/400] START bootstrap=False, max depth=12, max features=None,
```

[CV 1/5; 173/400] START bootstrap=True, max\_depth=20, max\_features=sqrt,

[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=0.384 total

min\_samples\_leaf=2, min\_samples\_split=4, n\_estimators=6

time=

0.2s

min\_samples\_leaf=3, min\_samples\_split=6, n\_estimators=84 [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=0.398 total time= 0.3s[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=0.379 total time= 0.2s [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 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=0.389 total time= 0.2s [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 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=0.422 total time= 2.9s[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=0.409 total time= 3.2s [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; 173/400] END bootstrap=True, max\_depth=20, max\_features=sqrt, min samples leaf=3, min samples split=6, n estimators=84;, score=0.420 total [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 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=0.398 total time= 0.9s [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=0.391 total time= 3.3s[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 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 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=0.372 total time= 3.2s [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 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=0.384 total

```
time=
        3.2s
[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 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=0.399 total
time=
       1.0s
[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 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=0.407 total
time= 0.9s
[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 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=0.385 total
time=
      3.2s
[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; 173/400] END bootstrap=True, max_depth=20, max_features=sqrt,
min samples leaf=3, min samples split=6, n estimators=84;, score=0.423 total
time= 0.9s
[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=0.420 total
time=
       1.2s
[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 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=0.418 total
time=
      1.2s
[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 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=0.399 total
      1.2s
time=
[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 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=0.413 total
time=
      1.2s
[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=0.453 total
[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=0.396 total
time=
       2.4s
[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 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=0.431 total
time=
       2.4s
[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=0.399 total
time=
       2.4s
[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 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
       2.5s
[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=0.409 total
      2.6s[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 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; 177/400] END bootstrap=False, max depth=12, max features=sqrt,
min samples leaf=2, min samples split=5, n estimators=24;, score=0.409 total
time=
       0.4s
[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=0.412 total
time=
      0.4s
[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 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=0.402 total
time=
      0.3s
[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 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=0.419 total
      0.3s
[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 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=0.413 total
```

time=

0.4s

```
[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 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=0.427 total
time= 0.3s
[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=0.377 total
time=
      0.3s
[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=0.414 total
[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; 178/400] END bootstrap=True, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=5, n_estimators=66;, score=0.406 total
time=
      0.3s
[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=0.449 total
time= 0.3s
[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; 176/400] END bootstrap=False, max_depth=5, max_features=None,
min_samples_leaf=2, min_samples_split=4, n_estimators=150;, score=0.412 total
time=
       2.4s
[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 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=0.391 total
time= 0.8s
[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 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=0.402 total
time=
       2.5s
[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 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=0.387 total
time=
        2.6s
[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
[CV 2/5; 179/400] END bootstrap=False, max depth=18, max features=None,
```

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min samples leaf=1, min samples split=4, n estimators=18;, score=0.398 total
time=
      0.8s
[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 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=0.432 total
time= 2.6s
[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 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=0.374 total
time=
       0.8s
[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=0.383 total
time=
      0.8s
[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 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=0.422 total
time=
       2.6s
[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 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=0.420 total
time=
      0.1s
[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 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=0.398 total
time= 0.1s
[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=0.418 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 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=0.394 total
      0.9s
time=
[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 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=0.416 total
time=
      0.1s
```

[CV 4/5; 182/400] START bootstrap=True, max depth=6, max features=None,

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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=0.453 total
time= 0.1s
[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=0.432 total
time=
      1.2s
[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 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=0.388 total
time=
      1.2s
[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; 182/400] END bootstrap=True, max_depth=6, max_features=None,
min samples leaf=3, min samples split=6, n estimators=96;, score=0.427 total
time=
      1.2s
[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 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=0.421 total
time=
      1.6s
[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 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=0.402 total
[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 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=0.468 total
time=
      1.3s
[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 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=0.385 total
time= 1.6s
[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 5/5; 180/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=2, min_samples_split=9, n_estimators=130;, score=0.466 total
time=
       1.6s
[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 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=0.425 total
```

```
time=
        1.7s
[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 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=0.405 total
time=
       1.7s
[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=0.427 total
time= 0.7s
[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 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=0.396 total
time=
      0.7s
[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 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=0.414 total
time=
      0.7s
[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; 183/400] END bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=96;, score=0.417 total
time=
       0.7s
[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 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=0.434 total
time=
      0.8s
[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=0.421 total
time= 1.3s
[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=0.396 total
time=
      1.4s
[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 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=0.409 total
[CV 3/5; 186/400] START bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=3, n_estimators=84
```

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[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=0.420 total
time=
      1.4s
[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=0.448 total
time=
      1.5s
[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=0.388 total
time=
       2.8s
[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 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=0.387 total
       2.8s
[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 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=0.372 total
time=
      2.9s
[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; 186/400] END bootstrap=False, max depth=12, max features=None,
min samples leaf=3, min samples split=3, n estimators=84;, score=0.373 total
time=
       2.9s
[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 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=0.402 total
time=
      3.3s
[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 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=0.414 total
time=
      5.6s
[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 2/5; 184/400] END bootstrap=False, max_depth=11, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=172;, score=0.395 total
      5.6s
[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 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=0.405 total
time=
       5.6s
```

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[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 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=0.394 total
time= 5.9s
[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=0.429 total
time=
      1.3s
[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=0.403 total
[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 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=0.405 total
time=
      5.9s
[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=0.406 total
time= 1.4s
[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=
      1.4s
[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=0.438 total
time=
      1.5s
[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 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=0.424 total
time=
      1.4s
[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 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=0.405 total
time=
       1.4s
[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
[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=0.417 total
time=
      1.3s
[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 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=0.410 total
time= 1.4s
[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; 189/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=3, min_samples_split=7, n_estimators=150;, score=0.452 total
       1.4s
time=
[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=0.418 total
time=
       3.0s
[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=0.421 total
time= 3.0s
[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; 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=
      3.1s
[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=0.416 total
       2.9s
[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=0.429 total
time= 2.9s
[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=0.428 total
      0.7s
time=
[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 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=0.381 total
time=
      0.8s
[CV 2/5; 192/400] START bootstrap=True, max_depth=12, max_features=sqrt,
```

```
[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=0.412 total
time= 0.7s
[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=0.420 total
time=
      0.7s
[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=0.463 total
time=
      0.7s
[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=
      0.6s
[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 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=0.410 total
time=
      0.6s
[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; 192/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=1, min samples split=7, n estimators=66;, score=0.409 total
[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=0.422 total time=
[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 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=0.412 total
time= 0.5s
[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
[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=0.438 total
time=
      0.5s
[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 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=0.403 total
```

min\_samples\_leaf=1, min\_samples\_split=7, n\_estimators=66

```
time=
        0.2s
[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; 193/400] END bootstrap=True, max_depth=16, max_features=None,
min samples leaf=1, min samples split=8, n estimators=8;, score=0.422 total
time=
       0.2s
[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=0.430 total
      0.2s
[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; 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=0.414 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=0.410 total
time=
      1.3s
[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=0.387 total
time=
       1.2s
[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 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=0.422 total
time=
      1.3s
[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 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=0.423 total
time= 1.3s
[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 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=0.401 total
time=
      1.3s
[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=0.390 total
[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; 195/400] END bootstrap=False, max depth=15, max features=None,
min_samples_leaf=3, min_samples_split=2, n_estimators=66;, score=0.394 total
time=
       2.6s
[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=0.372 total
time=
       2.6s
[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=0.387 total
time=
       2.6s
[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=0.373 total
       2.8s
[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 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=0.385 total
time= 8.0s
[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 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=0.412 total
time=
      8.0s
[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 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=0.373 total
time=
      8.0s
[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 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=0.391 total
time=
      1.7s
[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 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=0.409 total
[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 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=0.370 total
```

time=

1.8s

```
[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 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=0.383 total
time= 8.3s
[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 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=0.388 total
time=
       2.0s
[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; 196/400] END bootstrap=False, max depth=16, max features=None,
min samples leaf=1, min samples split=6, n estimators=42;, score=0.386 total
[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 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=0.414 total
time=
      1.1s
[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; 190/400] END bootstrap=False, max_depth=16, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=192;, score=0.378 total
time= 7.9s
[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=0.406 total
time=
      1.1s
[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 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=0.394 total
time=
      1.1s
[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 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=0.433 total
      1.2s
time=
[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=0.422 total
time=
      1.1s
[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
[CV 1/5; 198/400] END bootstrap=False, max_depth=5, max_features=None,
```

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min samples leaf=3, min samples split=9, n estimators=90;, score=0.413 total
time=
      1.5s
[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=0.385 total
time= 1.5s
[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 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=0.431 total
       1.5s
time=
[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 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=0.402 total
time=
      1.6s
[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 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=0.422 total
time= 1.5s
[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=0.428 total
time=
      1.8s
[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=0.403 total
time= 1.8s
[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 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=0.412 total
time= 1.8s
[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 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=0.411 total
      1.8s
time=
[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=0.399 total
time=
       2.0s
[CV 5/5; 201/400] START bootstrap=True, max_depth=18, max_features=sqrt,
```

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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=0.439 total
time= 1.1s
[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=0.392 total
time=
      1.1s
[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 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=0.413 total
time=
      1.2s
[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 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=0.398 total
time=
      1.1s
[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 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=0.430 total
time=
      1.2s
[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; 199/400] END bootstrap=False, max_depth=12, max_features=None,
min_samples_leaf=3, min_samples_split=6, n_estimators=138;, score=0.388 total
[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 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=0.435 total
time=
      0.8s
[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 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=0.387 total
time= 0.8s
[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=0.387 total
time=
      4.7s
[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 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=0.417 total
```

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time=
        0.8s
[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 4/5; 202/400] END bootstrap=True, max_depth=7, max_features=sqrt,
min samples leaf=2, min samples split=2, n estimators=136;, score=0.407 total
time=
       0.7s
[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 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=0.372 total
time= 4.7s
[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 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=0.402 total
time=
      4.7s
[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 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=0.456 total
time= 0.8s
[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 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=0.373 total
time=
       5.0s
[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 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=0.417 total
time=
      1.0s
[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=0.376 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 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=0.401 total
time=
      1.0s
[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; 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
[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

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[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=0.369 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 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=0.413 total
time=
      1.0s
[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 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=0.384 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 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=0.365 total
time= 0.1s
[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; 203/400] END bootstrap=False, max depth=8, max features=sqrt,
min samples leaf=1, min samples split=3, n estimators=104;, score=0.409 total
time= 1.0s
[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; 203/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=104;, score=0.455 total
time=
      1.0s
[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 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=0.408 total
time=
      2.4s
[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 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=0.398 total
time=
       2.7s
[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 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=0.353 total
[CV 3/5; 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=0.387 total
```

time=

2.8s

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[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=0.385 total
time=
      2.8s
[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=0.420 total
time=
      0.8s
[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 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=0.413 total
       0.7s
[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 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=0.453 total
time=
      0.7s
[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=0.427 total
time= 0.8s
[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 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=0.384 total
time=
      0.9s
[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 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=0.431 total
time= 4.7s
[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=0.410 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=0.374 total
time=
       0.0s
[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
[CV 3/5; 209/400] END bootstrap=True, max_depth=7, max_features=sqrt,
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min_samples_leaf=2, min_samples_split=9, n_estimators=2;, score=0.420 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=0.421 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=0.441 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 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=0.412 total
time=
       4.8s
[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 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=0.422 total
time= 4.8s
[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=0.435 total
time= 4.7s
[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=0.421 total
[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=0.443 total
time= 0.9s
[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 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=0.409 total
      0.9s
time=
[CV 2/5; 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; 210/400] END bootstrap=True, max_depth=14, max_features=sqrt,
min samples leaf=1, min samples split=5, n estimators=96;, score=0.409 total
time=
      0.9s
```

[CV 3/5; 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
[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=0.417 total
time= 0.9s
[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 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=0.445 total
time=
      0.9s
[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; 208/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=3, min samples split=5, n estimators=80;, score=0.401 total
time=
        2.0s
[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 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=0.402 total
time=
      2.0s
[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; 208/400] END bootstrap=False, max depth=8, max features=None,
min_samples_leaf=3, min_samples_split=5, n_estimators=80;, score=0.402 total
time=
       2.0s
[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; 208/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=3, min samples split=5, n estimators=80;, score=0.416 total
[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 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=0.426 total
time=
       2.2s
[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 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=0.429 total
time= 0.5s
[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=0.398 total
time=
      0.5s
[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; 212/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=2, min samples split=6, n estimators=62;, score=0.412 total
```

```
0.5s
time=
[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=0.399 total
time=
      0.5s
[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; 212/400] END bootstrap=True, max depth=12, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=62;, score=0.433 total
time= 0.6s
[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 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=0.432 total
time= 0.5s
[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 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=0.388 total
time= 0.5s
[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=0.417 total
time=
      1.5s
[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 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=0.418 total
time=
      0.5s
[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 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=0.443 total
time= 1.6s
[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 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=0.427 total
time= 0.5s
[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 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=0.414 total
[CV 2/5; 215/400] START bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=3, min_samples_split=4, n_estimators=10
```

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[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=0.421 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 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=0.405 total
time=
      1.5s
[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; 211/400] END bootstrap=True, max_depth=20, max_features=None,
min samples leaf=3, min samples split=2, n estimators=56;, score=0.427 total
time=
      1.5s
[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 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=0.394 total
time= 0.1s
[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 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=0.416 total
time= 0.1s
[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 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=0.444 total
time=
      0.1s
[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=0.395 total
time=
      0.1s
[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; 213/400] END bootstrap=True, max_depth=5, max_features=sqrt,
min samples leaf=1, min samples split=5, n estimators=110;, score=0.456 total
time=
      0.6s
[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=0.403 total
[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 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=
       3.0s
```

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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 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=0.403 total
time= 2.9s
[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 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=0.431 total
time=
      2.9s
[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 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=0.396 total
[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 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=0.413 total
time=
      3.2s
[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 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=0.405 total
time= 3.3s
[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; 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=
      3.2s
[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 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=0.388 total
time= 3.0s
[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 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=0.398 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 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=0.379 total
time=
       0.1s
[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
[CV 3/5; 218/400] END bootstrap=False, max depth=12, max features=sqrt,
```

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min_samples_leaf=2, min_samples_split=5, n_estimators=6;, score=0.418 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 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=0.429 total
time= 0.1s
[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 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=0.427 total
       2.9s
time=
[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 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=0.398 total
time=
      0.1s
[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; 219/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8;, score=0.406 total
time= 0.1s
[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=0.383 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; 219/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8;, score=0.431 total
time= 0.1s
[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; 219/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8;, score=0.384 total
time= 0.1s
[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; 219/400] END bootstrap=True, max_depth=16, max_features=sqrt,
min_samples_leaf=1, min_samples_split=3, n_estimators=8;, score=0.397 total
      0.1s
time=
[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=0.427 total
time=
      0.6s
[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 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=0.412 total time= 0.6s[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 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=0.396 total time= 0.7s[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; 220/400] END bootstrap=False, max\_depth=6, max\_features=sqrt, min samples leaf=3, min samples split=9, n estimators=84;, score=0.435 total time= 0.8s [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 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=0.444 total time= 0.8s [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= 1.4s[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=0.439 total [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 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=0.427 total time= 1.4s[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 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=0.416 total time= 1.5s[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 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=0.427 total time= 1.5s [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 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=0.403 total

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4.2s
time=
[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 1/5; 222/400] END bootstrap=False, max_depth=12, max_features=None,
min samples leaf=2, min samples split=9, n estimators=130;, score=0.377 total
time=
       4.4s
[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=0.385 total
time= 4.4s
[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=0.372 total
time= 4.4s
[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=0.391 total
time= 4.7s
[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=0.414 total
time=
       2.2s
[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 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=0.392 total
      7.1s
time=
[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 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=0.417 total
       2.2s
time=
[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 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=0.405 total
time=
      2.3s
[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 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=0.414 total
[CV 5/5; 224/400] START bootstrap=True, max_depth=9, max_features=sqrt,
```

min\_samples\_leaf=3, min\_samples\_split=8, n\_estimators=126

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[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=0.401 total
time=
      7.3s
[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 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=0.374 total
time= 7.2s
[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=0.435 total
time=
       2.2s
[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 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 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=0.384 total
time= 7.5s
[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 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=0.377 total
time= 7.4s
[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 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=0.425 total
time=
      0.9s
[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 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=0.398 total
time=
      0.8s
[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=0.422 total
time=
      0.8s
[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; 224/400] END bootstrap=True, max_depth=9, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=126;, score=0.412 total
      0.9s
[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=0.446 total
time=
       0.9s
```

```
[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=0.435 total
time= 0.4s
[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 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=0.407 total
time=
      0.4s
[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=0.416 total
       0.4s
[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 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=0.420 total
time=
      0.4s
[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 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=0.396 total
time= 0.4s
[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 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=0.407 total
time=
      1.0s
[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 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=0.424 total
time= 1.1s
[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=0.424 total
time=
      1.0s
[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; 227/400] END bootstrap=True, max_depth=10, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=146;, score=0.414 total
time=
      1.1s
[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
[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=0.441 total time= 1.1s [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=0.407 total time= 1.9s[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 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=0.422 total 1.9stime= [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 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=0.414 total time= 2.0s [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 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=0.417 total time= 1.9s[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=0.438 total time= 2.0s [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=0.392 total time= 0.5s[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=0.446 total time= 0.6s [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=0.413 total 0.6s time= [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 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=0.399 total time= 0.6s [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 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=0.431 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 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=0.444 total time= 0.7s [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 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=0.420 total time= 0.5s [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=0.388 total time= 0.5s [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=0.407 total time= 0.4s[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=0.431 total [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=0.439 total time= 5.6s [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=0.403 total time= 5.5s[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 4/5; 225/400] END bootstrap=True, max\_depth=19, max\_features=None, min\_samples\_leaf=2, min\_samples\_split=5, n\_estimators=198;, score=0.399 total time= 5.5s [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 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=0.405 total

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time= 5.6s
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- [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 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=0.437 total time= 5.8s
- [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=0.403 total time= 1.4s
- [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=0.388 total time= 1.4s
- [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 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=0.380 total time= 1.4s
- [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 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=0.365 total time= 1.4s
- [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=0.413 total time= 1.3s
- [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 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=0.424 total time= 1.6s
- [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=0.387 total time= 3.8s
- [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 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=0.407 total time= 1.6s
- [CV 3/5; 234/400] START bootstrap=True, max\_depth=None, max\_features=None, min\_samples\_leaf=1, min\_samples\_split=5, n\_estimators=112

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[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=0.388 total
time=
       3.8s
[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 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=0.402 total
time=
      1.6s
[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=0.376 total
time=
      3.7s
[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 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=0.392 total
time= 1.6s
[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=0.373 total
      3.8s
[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; 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; 231/400] END bootstrap=False, max depth=12, max features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=110;, score=0.400 total
time=
       3.7s
[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=0.433 total
time=
      1.5s
[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=0.429 total
time=
       2.6s
[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 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=0.410 total
       2.6s
[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 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=0.414 total
time=
       2.6s
```

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[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 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=0.406 total
time= 2.5s
[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=0.429 total
time=
       2.5s
[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=0.391 total
[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 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=0.454 total
time=
      0.7s
[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 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=0.420 total
time= 3.4s
[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 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=0.406 total
time=
      0.7s
[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 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=0.383 total
time=
      3.4s
[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 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=0.407 total
time=
      0.8s
[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 4/5; 236/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min samples leaf=2, min samples split=6, n estimators=80;, score=0.417 total
time=
       0.7s
[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 1/5; 234/400] END bootstrap=True, max_depth=None, max_features=None,
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min_samples_leaf=1, min_samples_split=5, n_estimators=112;, score=0.405 total
time=
      3.6s
[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 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=0.429 total
time= 0.7s
[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 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=0.395 total
time=
       3.6s
[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=0.439 total
time=
      0.9s
[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 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=0.405 total
time= 0.8s
[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=0.394 total
time= 0.8s
[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 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 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=0.422 total
time= 0.9s
[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=0.419 total
time= 0.9s
[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=0.396 total
      0.7s
time=
[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 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=0.377 total
time=
      0.8s
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[CV 2/5; 240/400] START bootstrap=True, max depth=7, max features=None,

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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=0.412 total
time= 0.8s
[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=0.384 total
time=
      0.9s
[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=0.368 total
time=
      0.8s
[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 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=0.399 total
time=
      1.7s
[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 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=0.425 total
time=
      1.8s
[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=0.424 total
time=
      1.7s
[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=0.403 total
time=
      1.7s
[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=0.459 total
time= 1.7s
[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=0.440 total
time=
      0.6s
[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,
min samples leaf=2, min samples split=7, n estimators=92;, score=0.417 total
```

```
time=
        0.6s
[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 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=0.402 total
       3.9s
time=
[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
time= 0.6s
[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 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=0.392 total
time=
      0.7s
[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 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=0.452 total
time= 0.6s
[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 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=0.392 total
time=
       4.1s
[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=0.377 total
time=
      4.1s
[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 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=0.380 total
      4.2s
time=
[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; 238/400] END bootstrap=False, max_depth=15, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=98;, score=0.385 total
time=
      4.1s
[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 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=0.450 total
[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; 243/400] END bootstrap=True, max_depth=11, max_features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=36;, score=0.413 total
time=
      0.3s
[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 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=0.418 total
time=
      0.3s
[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 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=0.441 total
time=
      0.3s
[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 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=0.406 total
time= 0.3s
[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=0.436 total
time=
      2.0s
[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 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=0.405 total
time=
       2.0s
[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; 244/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=1, min_samples_split=8, n_estimators=196;, score=0.421 total
time=
      2.0s
[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=0.424 total
time=
       2.0s
[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 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=0.413 total
       2.0s
[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=0.436 total
time=
       3.8s
```

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[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=0.407 total
time= 3.9s
[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 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=0.413 total
time=
      3.9s
[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 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=0.409 total
[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 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=0.427 total
time=
      4.1s
[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 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=0.425 total
time=
       2.1s
[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 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=0.420 total
time=
      1.9s
[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=0.409 total
time=
      2.1s
[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=0.403 total
time=
       2.0s
[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 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=0.402 total
time=
        2.3s
[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
[CV 1/5; 246/400] END bootstrap=True, max_depth=18, max_features=sqrt,
```

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min_samples_leaf=3, min_samples_split=5, n_estimators=126;, score=0.422 total
time=
      1.3s
[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=0.395 total
time= 1.3s
[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=0.417 total
time=
       1.3s
[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=0.409 total
time=
      1.3s
[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=0.413 total
time= 1.2s
[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 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=0.432 total
time=
      1.2s
[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 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=0.421 total
time= 1.2s
[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 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=0.417 total
time= 1.2s
[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 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=0.422 total
time=
      0.3s
[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 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=0.434 total
time=
      1.1s
```

[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 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=0.413 total time= 0.9s[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 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=0.416 total time= 1.3s [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 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=0.402 total time= 0.9s[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 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=0.380 total time= 0.3s [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 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=0.416 total time= 0.9s [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 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=0.383 total [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 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=0.384 total time= 0.3s [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=0.407 total time= 0.9s[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; 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=0.400 total time= 0.3s[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; 248/400] END bootstrap=False, max\_depth=10, max\_features=sqrt, min samples leaf=1, min samples split=3, n estimators=78;, score=0.433 total time= 0.9s[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; 250/400] END bootstrap=False, max\_depth=10, max\_features=sqrt, min samples leaf=3, min samples split=5, n estimators=44;, score=0.418 total time= 0.5s [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 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=0.425 total time= 0.5s[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 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=0.416 total time= 0.5s [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 5/5; 250/400] END bootstrap=False, max\_depth=10, max\_features=sqrt, min samples leaf=3, min samples split=5, n estimators=44;, score=0.431 total time= 0.5s[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 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=0.416 total time= 0.6s [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 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=0.413 total time= 0.5s [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=0.399 total time= 0.5s[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 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=0.425 total time= 0.5s [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 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=0.444 total [CV 4/5; 253/400] START bootstrap=False, max\_depth=6, max\_features=None,

min\_samples\_leaf=3, min\_samples\_split=3, n\_estimators=126

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[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=0.409 total
time=
      0.6s
[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 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=0.412 total
time=
       2.4s
[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 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=0.390 total
time=
       2.4s
[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 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=0.429 total
       2.4s
[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 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=0.422 total
time=
      2.5s
[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 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=0.406 total
time=
       2.8s
[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 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=0.401 total
time=
      1.1s
[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=0.396 total
time=
      1.2s
[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 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=0.399 total
[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 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=0.417 total
time=
      1.2s
```

```
[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 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=0.419 total
time= 1.2s
[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=0.410 total
time=
      4.3s
[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 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=0.409 total
[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 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=0.439 total
time=
      4.4s
[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 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=0.433 total
time= 4.5s
[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 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=0.425 total
time=
      4.6s
[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=0.443 total
time=
      1.0s
[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; 256/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=7, n_estimators=98;, score=0.396 total
time=
      1.0s
[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=0.421 total
time=
       1.0s
[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
[CV 5/5; 256/400] END bootstrap=True, max_depth=18, max_features=sqrt,
```

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min samples leaf=2, min samples split=7, n estimators=98;, score=0.427 total
time=
      1.0s
[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 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= 1.0s
[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; 255/400] END bootstrap=False, max_depth=8, max_features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=138;, score=0.395 total
time=
       3.3s
[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 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=0.399 total
time=
       3.4s
[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=0.391 total
time= 1.8s
[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=0.418 total time=
[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 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=0.402 total
[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 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=0.396 total
time= 1.8s
[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 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=0.390 total
time=
      1.8s
[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 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=0.419 total
time=
       3.4s
[CV 3/5; 259/400] START bootstrap=False, max depth=16, max features=None,
```

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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=0.414 total
time= 3.6s
[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; 257/400] END bootstrap=False, max depth=10, max features=None,
min_samples_leaf=2, min_samples_split=2, n_estimators=60;, score=0.401 total
time=
       2.0s
[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=0.439 total
time=
      1.5s
[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; 258/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=174;, score=0.421 total
time=
      1.5s
[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=0.413 total
time=
      1.4s
[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 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=0.417 total
[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=0.430 total
time=
      1.5s
[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 1/5; 260/400] END bootstrap=True, max depth=16, max features=sqrt,
min_samples_leaf=1, min_samples_split=6, n_estimators=76;, score=0.431 total
time= 0.8s
[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 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=0.418 total
time=
      0.7s
[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 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=0.405 total
```

```
time=
        0.8s
[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=0.402 total
time=
       0.7s
[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=0.426 total
time= 0.7s
[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=0.385 total
time=
      3.9s
[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=0.412 total
time=
      3.7s
[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 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=0.373 total
time=
       3.8s
[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; 259/400] END bootstrap=False, max depth=16, max features=None,
min_samples_leaf=1, min_samples_split=7, n_estimators=88;, score=0.383 total
time=
       3.8s
[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; 259/400] END bootstrap=False, max_depth=16, max_features=None,
min samples leaf=1, min samples split=7, n estimators=88;, score=0.376 total
time=
       3.8s
[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=0.399 total
time=
      1.6s
[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=0.421 total
[CV 2/5; 263/400] START bootstrap=False, max_depth=7, max_features=None,
```

min\_samples\_leaf=1, min\_samples\_split=2, n\_estimators=114

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[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=0.422 total
time=
      1.6s
[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 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=0.452 total
time=
      1.7s
[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=0.413 total
time=
      1.7s
[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=0.403 total
      5.5s
[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=0.405 total
      5.7s
[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=0.368 total
time=
       5.6s
[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=0.372 total
time=
      5.6s
[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 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=0.410 total
time=
       2.5s
[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 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=0.376 total
[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=0.387 total
[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

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[CV 2/5; 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=0.431 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=0.381 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; 263/400] END bootstrap=False, max_depth=7, max_features=None,
min_samples_leaf=1, min_samples_split=2, n_estimators=114;, score=0.401 total
[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 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=0.416 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=0.463 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 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=0.416 total
time=
      0.1s
[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=0.422 total
time=
      2.5s
[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=0.423 total
time=
       2.6s
[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 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=0.395 total
time=
       1.0s
[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
[CV 1/5; 266/400] END bootstrap=True, max_depth=15, max_features=sqrt,
```

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min_samples_leaf=3, min_samples_split=2, n_estimators=108;, score=0.438 total
time=
      1.0s
[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 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=0.407 total
time= 1.1s
[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 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=0.416 total
       1.0s
time=
[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; 266/400] END bootstrap=True, max_depth=15, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=108;, score=0.430 total
time=
      1.0s
[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 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=0.421 total
time= 1.3s
[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=0.402 total
time=
      1.4s
[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 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=0.429 total
      3.0s
[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 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=0.417 total
time= 1.3s
[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 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=0.414 total
      1.5s
time=
[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 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=0.407 total
time=
       3.1s
[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 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=0.409 total time= 3.1s[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=0.417 total time= 3.1s[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 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=0.429 total time= 3.0s [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; 267/400] END bootstrap=False, max\_depth=8, max\_features=sqrt, min\_samples\_leaf=2, min\_samples\_split=6, n\_estimators=150;, score=0.448 total time= 1.5s [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 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=0.372 total time= 3.2s [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 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=0.394 total [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=0.392 total time= 3.4s[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=0.409 total time= 3.4s[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=0.390 total time= 3.4s[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,

min samples leaf=3, min samples split=6, n estimators=74;, score=0.432 total

time= 1.2s [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=0.405 total time= 1.3s [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=0.425 total time= 1.3s[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=0.413 total time= 1.3s[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=0.459 total time= 1.3s [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 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=0.421 total time= 2.2s [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 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=0.410 total time= 2.2s [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=0.403 total 2.3s time= [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=0.409 total time= 2.3s [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=0.416 total [CV 5/5; 272/400] START bootstrap=False, max\_depth=16, max\_features=None,

min\_samples\_leaf=2, min\_samples\_split=8, n\_estimators=64

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[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=0.399 total
time=
      7.9s
[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 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=0.438 total
time= 0.2s
[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 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=0.385 total
time=
      7.8s
[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=0.394 total
time= 8.0s
[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 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 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=0.377 total
time= 8.0s
[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 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=0.391 total
time=
      0.2s
[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; 273/400] END bootstrap=True, max_depth=14, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=8;, score=0.409 total
time=
      0.2s
[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; 273/400] END bootstrap=True, max_depth=14, max_features=None,
min samples leaf=1, min samples split=4, n estimators=8;, score=0.410 total
time=
      0.2s
[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 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=0.415 total
      0.2s
[CV 4/5; 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=0.385 total
time=
       8.4s
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[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=0.425 total
time= 0.6s
[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=0.394 total
time=
      0.6s
[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 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=0.403 total
[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 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=0.431 total
time=
      0.7s
[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=0.419 total
time= 0.6s
[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 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=0.394 total
time=
       2.6s
[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 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=0.379 total
time=
      2.7s
[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 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=0.377 total
time=
       2.7s
[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 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=0.416 total
time=
       2.8s
[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
[CV 5/5; 272/400] END bootstrap=False, max depth=16, max features=None,
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min samples leaf=2, min samples split=8, n estimators=64;, score=0.371 total
time=
      2.7s
[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=0.431 total
time= 1.3s
[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=0.414 total
       1.3s
[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=0.409 total
time=
      1.3s
[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= 1.3s
[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=0.427 total
time=
      1.4s
[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 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=0.412 total
[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 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=0.390 total
time=
       2.8s
[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 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=0.407 total
       2.7s
time=
[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 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=0.432 total
time=
       2.8s
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[CV 4/5; 278/400] START bootstrap=True, max\_depth=18, max\_features=sqrt,

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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=0.431 total
time= 0.4s
[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 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=0.395 total
time=
      0.4s
[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 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=0.391 total
time=
      0.4s
[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=0.396 total
time=
      0.4s
[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 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=0.427 total
time=
      0.4s
[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; 275/400] END bootstrap=False, max_depth=6, max_features=None,
min_samples_leaf=2, min_samples_split=6, n_estimators=144;, score=0.420 total
[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 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=0.381 total
time=
      0.6s
[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 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=0.428 total
time= 0.6s
[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=0.412 total
time=
      0.7s
[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; 279/400] END bootstrap=True, max_depth=5, max_features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=130;, score=0.424 total
```

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0.6s
time=
[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=0.459 total
time=
       0.6s
[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=0.425 total
time=
       2.7s
[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=0.407 total
time=
      2.7s
[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=0.410 total
time=
      2.9s
[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=0.402 total
time=
       3.0s
[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=0.420 total
time=
       2.9s
[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=0.422 total
       2.3s
time=
[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 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=0.428 total
time=
      1.2s
[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=0.374 total
[CV 3/5; 282/400] START bootstrap=True, max_depth=11, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=102
```

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[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=
       2.4s
[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 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=0.401 total
time=
       2.6s
[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=0.395 total
time=
      1.2s
[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=0.402 total
       2.4s
[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=0.412 total
      1.3s
[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; 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=0.446 total
time=
      1.3s
[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=0.422 total
time=
      1.4s
[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; 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=0.418 total
time=
      1.2s
[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 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=0.406 total
[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 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=0.399 total
time=
      1.3s
```

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[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 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=0.422 total
time= 2.0s
[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 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=0.412 total
time=
       2.0s
[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 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=0.425 total
[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 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=0.431 total
time=
       2.0s
[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=0.422 total
      1.4s
[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 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 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=0.422 total
time=
      0.7s
[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 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=0.416 total
time=
      2.0s
[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; 285/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=3, min_samples_split=3, n_estimators=32;, score=0.427 total
time=
      0.2s
[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 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=0.440 total
time=
        2.1s
[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
[CV 2/5; 285/400] END bootstrap=False, max_depth=5, max_features=sqrt,
```

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min samples leaf=3, min samples split=3, n estimators=32;, score=0.379 total
time=
      0.2s
[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 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=0.438 total
time= 0.2s
[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=0.416 total
time=
       0.3s
[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 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=0.402 total
time=
       0.7s
[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=0.442 total
time=
      0.3s
[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 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 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=0.412 total
time=
      0.7s
[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 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=0.406 total
time= 0.8s
[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 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=0.415 total
time= 0.7s
[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 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=0.435 total
      1.0s
time=
[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 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=0.421 total
time=
      0.9s
[CV 2/5; 288/400] START bootstrap=True, max_depth=13, max_features=sqrt,
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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=0.412 total
time= 0.9s
[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 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=0.399 total
time=
      1.0s
[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 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=0.462 total
time=
      1.0s
[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=0.403 total
time=
      0.7s
[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=0.449 total
time=
      0.8s
[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=0.407 total
[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 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=0.409 total
time=
      0.9s
[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 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=0.427 total
time= 0.8s
[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 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=0.418 total
time=
       2.3s
[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 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=0.421 total
```

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time=
        2.4s
[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
        2.3s
time=
[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 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=0.410 total
time=
      2.4s
[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; 290/400] END bootstrap=False, max_depth=8, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=16;, score=0.427 total
time=
      0.1s
[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=0.395 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 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=0.420 total
time=
      0.1s
[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 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=0.413 total
time=
      0.1s
[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=0.422 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 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=0.368 total
time=
      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=0.436 total
[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
```

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[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=0.401 total
time=
      0.0s
[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 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=0.404 total
time= 0.0s
[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 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=0.409 total
time=
       2.6s
[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 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=0.457 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=0.409 total
time= 1.8s
[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=0.398 total
time=
      1.8s
[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; 292/400] END bootstrap=False, max depth=10, max features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=168;, score=0.422 total
time=
      1.8s
[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 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=0.444 total
time=
      1.8s
[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 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=0.405 total
[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,
min_samples_leaf=1, min_samples_split=4, n_estimators=184;, score=0.418 total
time=
       3.1s
```

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[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 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=0.373 total
time= 3.2s
[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 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=0.415 total
time=
      3.0s
[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 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=0.381 total
[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 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=0.391 total
time=
      3.4s
[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 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=0.407 total
time= 0.6s
[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 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=0.427 total
time=
      0.6s
[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 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=0.433 total
time= 0.6s
[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; 293/400] END bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=3, min_samples_split=2, n_estimators=44;, score=0.392 total
time=
      0.6s
[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; 293/400] END bootstrap=False, max depth=13, max features=sqrt,
min samples leaf=3, min samples split=2, n estimators=44;, score=0.409 total
time=
       0.6s
[CV 5/5; 295/400] START bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=128
```

[CV 1/5; 294/400] END bootstrap=False, max depth=13, max features=None,

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min samples leaf=3, min samples split=7, n estimators=76;, score=0.387 total
time=
      2.7s
[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 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=0.395 total
time= 2.7s
[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 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=0.414 total
time=
       2.8s
[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 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=0.390 total
time=
       2.7s
[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 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=0.372 total
time=
       2.8s
[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 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=0.394 total
time=
      3.6s
[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 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=0.420 total
[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=0.398 total
time= 3.6s
[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 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=0.407 total
time=
       3.6s
[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 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=0.420 total
time=
       3.6s
```

[CV 5/5; 297/400] START bootstrap=True, max\_depth=20, max\_features=None,

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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
       2.1s
[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=0.402 total
time=
       2.1s
[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 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=0.384 total
time=
        2.1s
[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 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=
      0.2s
[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 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=0.392 total
time=
      0.2s
[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 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=0.416 total
[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=0.421 total
time= 0.2s
[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 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 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=0.417 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 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=0.385 total
time=
       2.4s
[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; 298/400] END bootstrap=True, max_depth=6, max_features=sqrt,
min samples leaf=3, min samples split=7, n estimators=46;, score=0.451 total
```

```
time=
        0.2s
[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; 297/400] END bootstrap=True, max_depth=20, max_features=None,
min samples leaf=2, min samples split=5, n estimators=110;, score=0.402 total
time=
        2.8s
[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 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=0.403 total
time=
      1.5s
[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 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=0.406 total
time=
      1.5s
[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=0.388 total
time=
      1.5s
[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 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=0.434 total
time=
       1.4s
[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 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=0.418 total
time=
      1.6s
[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=0.405 total
time= 3.0s
[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; 297/400] END bootstrap=True, max_depth=20, max_features=None,
min_samples_leaf=2, min_samples_split=5, n_estimators=110;, score=0.403 total
time=
      3.1s
[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 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=0.431 total
[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 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=0.441 total
time=
       3.4s
[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 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=0.409 total
time=
      1.6s
[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 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=0.373 total
time=
      1.5s
[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 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=0.379 total
time= 1.6s
[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 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=
      1.7s
[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; 301/400] END bootstrap=False, max depth=None, max features=sqrt,
min samples leaf=3, min samples split=3, n estimators=82;, score=0.389 total
time=
      1.4s
[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 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=0.399 total
time=
      4.1s
[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 3/5; 300/400] END bootstrap=False, max depth=8, max features=None,
min samples leaf=1, min samples split=7, n estimators=162;, score=0.402 total
time=
      4.1s
[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=0.414 total
[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 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=0.395 total
```

time=

4.1s

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[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=0.419 total
time= 4.2s
[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=0.399 total
time=
       2.1s
[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; 303/400] END bootstrap=False, max_depth=8, max_features=None,
min samples leaf=1, min samples split=6, n estimators=86;, score=0.396 total
[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 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=0.401 total
time=
       2.1s
[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=0.417 total
       2.1s
[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 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=0.419 total
time=
       2.1s
[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=0.398 total
time=
      5.2s
[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 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=0.432 total
time=
      5.3s
[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 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=0.402 total
time=
       5.2s
[CV 3/5; 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,
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min_samples_leaf=2, min_samples_split=5, n_estimators=188;, score=0.399 total
time=
      5.3s
[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 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=0.438 total
time= 5.3s
[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=0.401 total
       2.7s
time=
[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=0.431 total
time=
       2.9s
[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=
       2.9s
[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=0.405 total
time=
      2.9s
[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 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=0.368 total
[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=0.399 total
time= 3.4s
[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=0.398 total
       3.5s
time=
[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=0.401 total
time=
       3.5s
```

[CV 3/5; 307/400] START bootstrap=False, max\_depth=5, max\_features=None,

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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=0.417 total
time= 3.7s
[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=0.419 total
time=
       3.6s
[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=0.412 total
time=
      1.4s
[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=0.385 total
time=
      1.3s
[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 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=0.401 total
time=
      1.4s
[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 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=0.432 total
[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=0.422 total
time=
      1.4s
[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 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=0.385 total
time= 4.5s
[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 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=0.438 total
time=
       4.3s
[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 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=0.366 total
```

```
0.0s
time=
[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=0.385 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 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=0.396 total
time= 4.4s
[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=0.391 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 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=0.383 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 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=0.398 total
time=
       0.0s
[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 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=0.399 total
time=
      4.9s
[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 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=0.399 total
time= 4.6s
[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 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=0.395 total
time=
      3.1s
[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 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=0.418 total
[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
```

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[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=0.438 total
time=
       3.2s
[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=0.464 total
time=
       3.3s
[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=0.409 total
time=
      3.4s
[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 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=0.383 total
       2.8s
[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=0.388 total
time=
      2.9s
[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 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=0.402 total
time=
       2.9s
[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 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=0.424 total
time=
      1.6s
[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 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=0.417 total
time=
      1.5s
[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 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=0.373 total
[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 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=0.390 total
time=
       2.8s
```

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[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=0.405 total
time= 1.5s
[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 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=0.433 total
time=
      1.5s
[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 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=0.433 total
       0.7s
[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=0.409 total
time=
      0.7s
[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 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=0.413 total
time= 0.7s
[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 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=0.402 total
time=
      1.7s
[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=0.418 total
time= 0.7s
[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=0.441 total
time=
      0.7s
[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 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=0.451 total
time=
       1.1s
[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 3/5; 314/400] END bootstrap=True, max_depth=18, max_features=None,
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min samples leaf=2, min samples split=7, n estimators=40;, score=0.405 total
time=
      1.1s
[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; 314/400] END bootstrap=True, max depth=18, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=40;, score=0.422 total
time= 1.2s
[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 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=0.403 total
time=
       0.3s
[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 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=0.398 total
time=
      0.3s
[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 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=0.402 total
time= 0.3s
[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=0.417 total
time=
      1.0s
[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 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=0.365 total
time= 0.3s
[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 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=0.401 total
time= 0.3s
[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=
      2.7s
[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 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; 312/400] END bootstrap=True, max_depth=19, max_features=None,
min samples leaf=1, min samples split=4, n estimators=96;, score=0.403 total
time=
       2.7s
```

[CV 1/5; 317/400] START bootstrap=True, max\_depth=18, max\_features=sqrt,

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min_samples_leaf=2, min_samples_split=8, n_estimators=160
[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=0.448 total
      1.1s
[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; 312/400] END bootstrap=True, max depth=19, max features=None,
min_samples_leaf=1, min_samples_split=4, n_estimators=96;, score=0.394 total
time=
       2.7s
[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=0.428 total
       2.8s
[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 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; 312/400] END bootstrap=True, max_depth=19, max_features=None,
min samples leaf=1, min samples split=4, n estimators=96;, score=0.418 total
time=
      2.6s
[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 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=0.401 total
time=
      1.5s
[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=0.435 total
[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 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=0.423 total
time=
      1.6s
[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 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=0.407 total
time= 1.7s
[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; 317/400] END bootstrap=True, max_depth=18, max_features=sqrt,
min_samples_leaf=2, min_samples_split=8, n_estimators=160;, score=0.409 total
time=
       1.8s
[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
[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=0.424 total
```

0.3stime= [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 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=0.428 total time= 2.2s [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 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=0.392 total time= 0.3s[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 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=0.418 total time= 2.1s[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 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=0.425 total time= 0.3s [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 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=0.425 total time= 2.2s [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 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=0.413 total time= 0.4s[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 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=0.440 total 2.2s time= [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 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=0.425 total time= 2.2s [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 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=0.473 total [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

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[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=0.406 total
time=
       2.3s
[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=0.422 total
time=
       2.3s
[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=0.380 total
time=
       2.4s
[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; 319/400] END bootstrap=False, max depth=13, max features=None,
min_samples_leaf=2, min_samples_split=8, n_estimators=64;, score=0.380 total
       2.3s
[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 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=0.368 total
time=
      2.3s
[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=0.377 total
time=
       2.4s
[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 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=0.412 total
time=
      2.5s
[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] END bootstrap=False, max depth=16, max features=sqrt,
min samples leaf=2, min samples split=9, n estimators=8;, score=0.436 total
time=
      0.2s
[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 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=0.387 total
       2.5s
[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
[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=0.438 total
time=
       2.7s
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[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 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=0.390 total
time= 2.7s
[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 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=
      0.2s
[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 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=0.391 total
       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=0.402 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=0.398 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 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=0.435 total
time=
      1.1s
[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 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=0.416 total
time= 1.1s
[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 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=0.401 total
time=
      1.2s
[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=0.426 total
time=
      1.3s
[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 2/5; 321/400] END bootstrap=True, max_depth=15, max_features=sqrt,
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min_samples_leaf=3, min_samples_split=2, n_estimators=118;, score=0.401 total
time=
      1.3s
[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 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=0.448 total
time= 4.3s
[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 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=0.401 total
       4.3s
time=
[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=0.433 total
time=
       4.5s
[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 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=0.407 total
time= 4.4s
[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 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=0.418 total
time=
      4.5s
[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=0.471 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 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=0.384 total
time= 0.2s
[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=0.431 total
      0.3s
time=
[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 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=0.402 total
time=
      0.2s
[CV 4/5; 326/400] START bootstrap=True, max_depth=14, max_features=sqrt,
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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,
min samples leaf=1, min samples split=7, n estimators=24;, score=0.453 total
time= 0.3s
[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=0.391 total
time=
      4.9s
[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 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=0.362 total
time=
       5.1s
[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=0.367 total
time=
      4.8s
[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 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=0.366 total
time=
      5.4s
[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 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=0.444 total
[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 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=0.406 total
time=
      1.6s
[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 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=0.407 total
time= 1.6s
[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 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=0.403 total
time=
       0.7s
[CV 3/5; 328/400] START bootstrap=False, max depth=11, max features=sqrt,
min_samples_leaf=2, min_samples_split=3, n_estimators=156
[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=0.418 total
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0.8s
time=
[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 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=0.396 total
time=
       5.7s
[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 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=0.446 total
time= 0.8s
[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 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=0.413 total
time=
      1.8s
[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 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=0.427 total
time=
      1.6s
[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 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=0.427 total
time=
       0.7s
[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 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=0.409 total
time=
      0.8s
[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=0.425 total
time= 0.8s
[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 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=0.406 total
time=
      0.8s
[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 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=0.406 total
[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
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[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=0.433 total
time=
      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 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=0.390 total
time=
      0.2s
[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 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=0.429 total
time=
      0.3s
[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 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=0.394 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 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=0.430 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 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=0.399 total
time=
      0.8s
[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 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=0.422 total
time=
      0.8s
[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 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=0.420 total
time=
      1.8s
[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=0.432 total
[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=0.401 total
[CV 3/5; 332/400] START bootstrap=False, max_depth=17, max_features=sqrt,
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min\_samples\_leaf=1, min\_samples\_split=6, n\_estimators=90

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[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
[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=0.412 total
time= 2.0s
[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=0.423 total
time=
      1.9s
[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 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=0.427 total
       0.8s
[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=0.391 total
time=
      0.9s
[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 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=0.438 total
time= 1.1s
[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 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=0.416 total
time=
      0.9s
[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 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=0.455 total
time= 0.9s
[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=0.433 total
time=
      1.4s
[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=0.401 total
time=
       1.4s
[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,
```

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min samples leaf=1, min samples split=6, n estimators=90;, score=0.380 total
time=
      1.4s
[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= 1.4s
[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=0.390 total
       1.5s
time=
[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 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=0.412 total
time=
      0.5s
[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 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=0.395 total
time= 0.5s
[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 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=0.412 total
time=
      0.5s
[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=0.406 total
time= 0.6s
[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=0.415 total
time= 0.7s
[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=0.388 total
       2.1s
time=
[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 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=
       2.2s
[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=0.399 total 2.2s [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 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=0.410 total time= 2.3s [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 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=0.407 total time= 2.3s [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=0.412 total time= 0.3s [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=0.409 total time= 0.3s [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 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=0.422 total [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; 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= 0.3s [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 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=0.420 total time= 0.3s[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 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=0.409 total time= 1.6s [CV 1/5; 338/400] START bootstrap=False, max depth=19, max features=sqrt, min\_samples\_leaf=2, min\_samples\_split=9, n\_estimators=22 [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=0.432 total

```
time=
        1.7s
[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 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=0.396 total
time=
       1.6s
[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=0.425 total
time= 1.6s
[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 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=0.429 total
time=
      0.4s
[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 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=0.388 total
time= 0.3s
[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 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=0.379 total
time=
       0.4s
[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=0.380 total
time=
      0.4s
[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 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= 1.9s
[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=0.412 total
time=
      0.4s
[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=0.384 total
[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=0.399 total
time=
      1.5s
[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; 337/400] END bootstrap=False, max depth=10, max features=None,
min samples leaf=1, min samples split=5, n estimators=48;, score=0.417 total
time=
      1.6s
[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=0.390 total
time= 1.5s
[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 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=0.404 total
time= 1.6s
[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 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=0.377 total
time=
      2.9s
[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 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=0.405 total
time=
       3.1s
[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 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=0.414 total
time=
      2.7s
[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 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=0.420 total
time=
      3.1s
[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 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=0.429 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
[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=0.407 total
time=
       2.7s
```

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[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 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=0.421 total
time= 2.8s
[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 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=0.391 total
time=
      3.1s
[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; 339/400] END bootstrap=False, max depth=13, max features=None,
min samples leaf=3, min samples split=9, n estimators=86;, score=0.372 total
[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; 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=
      2.7s
[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 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=0.418 total
time= 0.3s
[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=0.396 total
time=
      0.3s
[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=0.416 total
time= 0.4s
[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=0.410 total
time=
      0.3s
[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
[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=0.453 total
time=
       0.3s
[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=0.425 total
time=
      3.4s
[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 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=0.422 total
time= 3.4s
[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=0.399 total
       3.4s
time=
[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 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=0.405 total
time=
       3.7s
[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 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=0.440 total
time=
       3.5s
[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=0.388 total
time=
      5.0s
[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=0.401 total
      5.3s
[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 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=0.392 total
time= 5.0s
[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 3/5; 341/400] END bootstrap=True, max_depth=None, max_features=None,
min_samples_leaf=1, min_samples_split=3, n_estimators=160;, score=0.388 total
time=
       5.3s
[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 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=0.431 total
time=
       5.6s
[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=0.424 total
       2.6s
[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=0.414 total
time=
       2.5s
[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 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=0.409 total
time=
        2.6s
[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 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=0.412 total
time=
      2.5s
[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=0.427 total
time=
       2.5s
[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 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=0.396 total
[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 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=0.436 total
time=
      1.2s
[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=0.414 total
time= 1.1s
[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 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=0.402 total
time=
      1.2s
[CV 4/5; 347/400] START bootstrap=False, max depth=18, max features=None,
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=0.440 total
```

time= 1.1s [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 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=0.395 total time= [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; 344/400] END bootstrap=False, max depth=11, max features=None, min\_samples\_leaf=2, min\_samples\_split=3, n\_estimators=196;, score=0.394 total time= 6.4s[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 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=0.410 total time= 0.4s[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; 344/400] END bootstrap=False, max\_depth=11, max\_features=None, min samples leaf=2, min samples split=3, n estimators=196;, score=0.414 total time= 6.5s [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 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=0.402 total time= 0.4s[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; 347/400] END bootstrap=False, max depth=18, max features=None, min\_samples\_leaf=3, min\_samples\_split=9, n\_estimators=48;, score=0.380 total time= 2.1s [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=0.405 total 6.6s time= [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 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=0.391 total time= 0.4s[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 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=0.377 total [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

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[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=0.390 total
time=
      0.5s
[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=0.405 total
time=
       6.9s
[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 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=0.361 total
time=
       2.3s
[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 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=0.394 total
       2.5s
[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; 347/400] END bootstrap=False, max depth=18, max features=None,
min samples leaf=3, min samples split=9, n estimators=48;, score=0.390 total
time=
      2.4s
[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 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=0.379 total
time=
       2.1s
[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=0.455 total
time=
      0.9s
[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=0.422 total
time=
      0.9s
[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 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=0.413 total
      0.9s
[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
[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=0.420 total
```

0.9s

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[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=0.441 total
time= 1.0s
[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=0.409 total
time=
      1.0s
[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 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=0.447 total
[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 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=0.435 total
time=
      1.0s
[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 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=0.405 total
time= 1.3s
[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 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=0.413 total
time=
      1.2s
[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=0.381 total
time= 4.1s
[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 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=0.376 total
time=
      3.9s
[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=0.377 total
time=
      4.3s
[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 2/5; 351/400] END bootstrap=False, max depth=12, max features=None,
```

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min_samples_leaf=3, min_samples_split=9, n_estimators=116;, score=0.396 total
time=
      4.5s
[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 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=0.401 total
time= 4.2s
[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 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=0.432 total
      1.4s
time=
[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 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=0.406 total
time=
      1.4s
[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 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=0.406 total
time= 1.4s
[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 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=0.420 total
time=
      1.6s
[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=0.422 total
      1.5s
[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 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=0.388 total
time= 5.9s
[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; 352/400] END bootstrap=False, max_depth=11, max_features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=184;, score=0.392 total
       6.1s
time=
[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 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=0.412 total
time=
       6.0s
[CV 3/5; 355/400] START bootstrap=False, max_depth=8, max_features=sqrt,
```

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min_samples_leaf=2, min_samples_split=6, n_estimators=96
[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=0.399 total
time= 6.0s
[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=0.408 total
time=
      6.1s
[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 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=0.417 total
time=
       0.9s
[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 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=
      0.9s
[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=0.410 total
time=
      0.9s
[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=0.410 total
[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=0.453 total
time=
      0.9s
[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 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=0.427 total
time= 3.6s
[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 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=0.413 total
time=
       3.7s
[CV 2/5; 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=0.407 total
```

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time=
        3.6s
[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 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=0.437 total
time=
       3.7s
[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 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=0.414 total
time=
      3.9s
[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 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=0.450 total
time=
      0.8s
[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; 357/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min samples leaf=3, min samples split=8, n estimators=100;, score=0.402 total
time= 0.8s
[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 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=0.407 total
time=
       0.8s
[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; 357/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=3, min_samples_split=8, n_estimators=100;, score=0.402 total
time=
      0.8s
[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=0.430 total
time= 0.8s
[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=0.427 total
time=
      0.8s
[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,
min_samples_leaf=1, min_samples_split=3, n_estimators=106;, score=0.405 total
[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
```

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[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=0.379 total
time=
       3.9s
[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=0.402 total
time= 0.8s
[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 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=0.422 total
time=
      0.9s
[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 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=0.402 total
      3.9s
[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 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=0.445 total
time= 0.9s
[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 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=0.374 total
time=
       4.0s
[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 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=0.417 total
time=
      4.2s
[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 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
time=
      0.8s
[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 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=0.401 total
[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=0.383 total
[CV 1/5; 361/400] START bootstrap=False, max_depth=5, max_features=sqrt,
```

min\_samples\_leaf=1, min\_samples\_split=7, n\_estimators=126

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[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 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=0.391 total
time= 1.5s
[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 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=0.416 total
time=
      0.7s
[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 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=0.422 total
[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=0.391 total
time=
      0.7s
[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 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=0.425 total
time= 1.4s
[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 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=0.399 total
time=
      1.4s
[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; 359/400] END bootstrap=True, max depth=6, max features=None,
min_samples_leaf=1, min_samples_split=5, n_estimators=112;, score=0.464 total
time=
      1.4s
[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 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=0.424 total
time=
      0.7s
[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=0.428 total
time=
       0.8s
[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 3/5; 361/400] END bootstrap=False, max_depth=5, max_features=sqrt,
```

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min_samples_leaf=1, min_samples_split=7, n_estimators=126;, score=0.412 total
time=
      0.8s
[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 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=0.391 total
time= 0.9s
[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=0.440 total
time=
      0.8s
[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; 361/400] END bootstrap=False, max_depth=5, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=126;, score=0.444 total
time=
      0.9s
[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=0.438 total
time= 1.5s
[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=
      1.6s
[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=0.407 total
time= 1.6s
[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 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=0.431 total
time= 1.5s
[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 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=0.402 total
time=
      1.8s
[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
[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=0.413 total
time=
       3.1s
```

[CV 1/5; 365/400] START bootstrap=False, max depth=16, max features=None,

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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=0.385 total
time= 3.1s
[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 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=0.402 total
time=
      3.2s
[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 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=0.431 total
time=
        3.2s
[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 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=0.422 total
time=
      3.3s
[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 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=0.422 total
time=
      1.8s
[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 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=0.399 total
[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=0.396 total
time= 1.8s
[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 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 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=0.416 total
time= 1.9s
[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 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=0.412 total
time=
       0.3s
[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 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=0.385 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 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=0.402 total
time=
       0.3s
[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 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=0.416 total
time=
       2.0s
[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=0.432 total
time=
      0.4s
[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=0.422 total
time=
      0.3s
[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 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=0.385 total
time=
       0.4s
[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 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=0.412 total
time=
      0.5s
[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 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=0.432 total
time= 0.4s
[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 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=0.401 total
time=
      0.4s
[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,
min_samples_leaf=1, min_samples_split=8, n_estimators=22;, score=0.422 total
[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 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=
      0.5s
[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 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=0.424 total
time=
      0.5s
[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 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=0.402 total
time=
      0.7s
[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 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=0.409 total
time= 0.6s
[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=0.429 total
      0.6s
[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 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=0.425 total
time=
       2.6s
[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 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=0.396 total
time=
      2.8s
[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 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=0.383 total
time=
       2.8s
[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 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=0.409 total
[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 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=0.392 total
```

2.9s

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[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 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=0.390 total
time= 6.8s
[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 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=0.383 total
time=
      7.2s
[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 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=0.403 total
       7.4s
[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 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=0.362 total
time=
      7.2s
[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 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=0.396 total
time= 7.8s
[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 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=0.391 total
time=
      6.0s
[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 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=0.395 total
time=
      6.1s
[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=0.373 total
time=
      6.2s
[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 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=0.390 total
time=
       6.1s
[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 4/5; 370/400] END bootstrap=False, max depth=18, max features=None,

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min_samples_leaf=1, min_samples_split=4, n_estimators=128;, score=0.383 total
time=
      6.2s
[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 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=0.416 total
time= 7.3s
[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 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=0.392 total
      7.5s
time=
[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 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=0.391 total
time=
      7.5s
[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 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=0.368 total
time= 7.5s
[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 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=0.359 total
time=
      7.3s
[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=0.388 total
time= 7.2s
[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 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=0.389 total
time= 7.0s
[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 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=0.376 total
      7.2s
time=
[CV 3/5; 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=0.403 total
time=
      7.5s
```

[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 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
time= 7.9s
[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=0.422 total
time=
      1.8s
[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=0.379 total
time=
      1.8s
[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=0.422 total
time=
      1.7s
[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 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=0.410 total
time=
      2.0s
[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 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=0.460 total
[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=
      1.7s
[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=0.402 total
time= 1.6s
[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 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=0.428 total
time=
       1.8s
[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 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=0.421 total
```

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time=
        0.9s
[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 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=0.381 total
time=
       0.8s
[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 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=0.395 total
time= 1.9s
[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 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=0.425 total
time=
      0.8s
[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 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=0.459 total
time=
      2.0s
[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=0.417 total
time=
       0.7s
[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=0.459 total
time=
      0.7s
[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 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=0.380 total
time= 8.7s
[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 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=0.362 total
time=
      8.9s
[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 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=0.388 total
[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

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[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=0.380 total
time=
       9.2s
[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 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=0.394 total
time=
       9.5s
[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 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=0.418 total
time=
       2.3s
[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 2/5; 377/400] END bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=90;, score=0.416 total
       2.2s
[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; 377/400] END bootstrap=True, max depth=15, max features=None,
min samples leaf=3, min samples split=7, n estimators=90;, score=0.425 total
time=
      2.3s
[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 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=0.416 total
time=
       2.1s
[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; 377/400] END bootstrap=True, max_depth=15, max_features=None,
min_samples_leaf=3, min_samples_split=7, n_estimators=90;, score=0.416 total
time=
       2.5s
[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 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=0.435 total
time=
       2.2s
[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; 378/400] END bootstrap=False, max_depth=13, max_features=sqrt,
min_samples_leaf=1, min_samples_split=4, n_estimators=154;, score=0.402 total
time=
[CV 2/5; 380/400] START bootstrap=True, max depth=12, max features=sqrt,
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=0.420 total
```

2.2s

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[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=0.390 total
time= 2.1s
[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=0.416 total
time=
       2.2s
[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 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
[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; 380/400] END bootstrap=True, max_depth=12, max_features=sqrt,
min_samples_leaf=2, min_samples_split=5, n_estimators=166;, score=0.410 total
time=
      1.5s
[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=0.410 total
time= 1.5s
[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=0.412 total
time=
      1.4s
[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=0.440 total
time=
      1.6s
[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=0.391 total
time=
      3.7s
[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=0.396 total
time=
       3.7s
[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 3/5; 379/400] END bootstrap=False, max_depth=10, max_features=None,
```

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min_samples_leaf=2, min_samples_split=4, n_estimators=122;, score=0.418 total
time=
      3.7s
[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 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=0.390 total
time= 3.7s
[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 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=0.401 total
time=
       3.8s
[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=0.435 total
time=
      1.9s
[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=0.405 total
time= 1.9s
[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=
      1.8s
[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 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=0.427 total
time= 1.9s
[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 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=0.424 total
time= 2.1s
[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 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=0.425 total
       2.0s
time=
[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
[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=0.433 total
time=
       2.1s
```

[CV 2/5; 384/400] START bootstrap=True, max\_depth=20, max\_features=None,

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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=0.407 total
time= 1.8s
[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=0.406 total
time=
       2.0s
[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=0.429 total
time=
        2.0s
[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 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=0.403 total
time=
      7.7s
[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=0.421 total
time=
      0.3s
[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 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=0.409 total
[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 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=0.390 total
time=
      8.0s
[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=0.417 total
time= 0.3s
[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
[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=0.380 total
time=
      8.0s
[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 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=0.387 total
```

```
7.5s
time=
[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 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=0.370 total
time=
       8.1s
[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 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=0.399 total
time= 0.3s
[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 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=0.388 total
time=
      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 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=0.427 total
time=
      0.3s
[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 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=0.418 total
time=
       0.3s
[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=0.433 total
time=
      0.3s
[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=0.413 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=0.455 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 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=0.425 total
[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
```

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[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
time=
      4.2s
[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 2/5; 384/400] END bootstrap=True, max_depth=20, max_features=None,
min samples leaf=2, min samples split=8, n estimators=148;, score=0.406 total
time=
      4.4s
[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 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=0.413 total
time=
      4.3s
[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 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=0.427 total
time= 1.7s
[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=0.438 total
[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 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 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=0.403 total
time=
      1.6s
[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 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=0.403 total
time=
      1.8s
[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 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=0.433 total
time=
       2.0s
[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=0.462 total
[CV 5/5; 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; 389/400] END bootstrap=True, max depth=8, max features=None,
min_samples_leaf=2, min_samples_split=7, n_estimators=114;, score=0.425 total
```

1.8s

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[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=0.409 total
time= 1.8s
[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=0.429 total
time=
      1.9s
[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 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=0.464 total
[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 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=0.398 total
time=
      1.9s
[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 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=0.399 total
time= 1.0s
[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; 390/400] END bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=156;, score=0.427 total
time=
      1.1s
[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 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=0.403 total
time= 0.1s
[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 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=0.422 total
time=
      0.1s
[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 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=0.395 total
time=
      0.1s
[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 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=0.425 total
time= 1.0s
[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 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=0.418 total
time=
      0.1s
[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; 390/400] END bootstrap=True, max depth=8, max features=sqrt,
min_samples_leaf=2, min_samples_split=6, n_estimators=156;, score=0.462 total
time=
      1.0s
[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 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=0.412 total
time= 1.2s
[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=0.413 total
time=
      0.4s
[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=0.391 total
time=
      0.4s
[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; 393/400] START bootstrap=True, max depth=9, max features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120
[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=0.390 total
time= 0.4s
[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; 392/400] END bootstrap=False, max_depth=19, max_features=sqrt,
min_samples_leaf=1, min_samples_split=7, n_estimators=24;, score=0.380 total
      0.4s
time=
[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=0.412 total
time=
      0.4s
[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=0.383 total
time= 5.1s
[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 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=0.380 total
time=
      4.9s
[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=0.362 total
time=
       6.1s
[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 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=0.398 total
time=
      5.8s
[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 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=0.424 total
time=
      2.1s
[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 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=0.425 total
[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; 393/400] END bootstrap=True, max_depth=9, max_features=None,
min_samples_leaf=2, min_samples_split=3, n_estimators=120;, score=0.405 total
time=
       2.3s
[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 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=0.401 total
time=
       2.1s
[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 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=0.428 total
time=
      0.2s
[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; 388/400] END bootstrap=False, max_depth=None, max_features=None,
```

min\_samples\_leaf=1, min\_samples\_split=5, n\_estimators=90;, score=0.358 total

```
6.4s
time=
[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 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=0.388 total
       0.3s
time=
[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=0.421 total
time= 0.3s
[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=0.398 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 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=0.467 total
time=
      2.4s
[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=0.456 total
time=
       0.3s
[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=0.424 total
time=
       2.2s
[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 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=0.406 total
time= 0.6s
[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 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=0.435 total
time=
      0.7s
[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 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=0.403 total
[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 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=0.392 total
time=
      0.7s
[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 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=0.426 total
time= 0.7s
[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 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=0.392 total
time=
       2.2s
[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; 394/400] END bootstrap=True, max_depth=7, max_features=None,
min_samples_leaf=3, min_samples_split=4, n_estimators=156;, score=0.428 total
       2.4s
[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=0.406 total
time=
      2.3s
[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 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=0.398 total
time=
      0.9s
[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 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=0.394 total
time=
      0.9s
[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 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=0.462 total
time=
       2.2s
[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 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=0.395 total
[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; 397/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74;, score=0.384 total
```

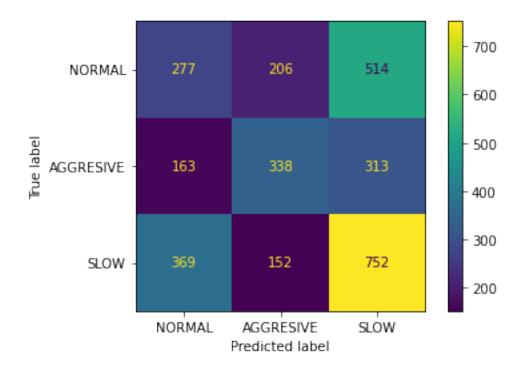
0.9s

```
[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; 397/400] END bootstrap=True, max_depth=None, max_features=sqrt,
min_samples_leaf=2, min_samples_split=2, n_estimators=74;, score=0.412 total
time= 1.0s
[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=0.396 total
time=
      1.3s
[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 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=0.422 total
[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 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=0.392 total
time=
      1.3s
[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 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=0.424 total
time= 1.3s
[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 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=0.432 total
time=
      1.5s
[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 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=0.414 total
time= 3.9s
[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=0.398 total
      4.3s
[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= 4.1s
[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=0.410 total
time=
      4.2s
[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=0.426 total
time=
      4.2s
```

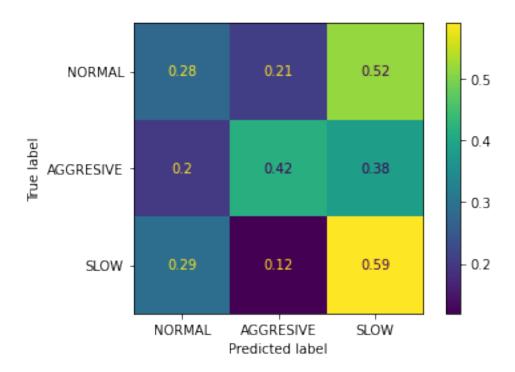
[CV 1/5; 399/400] END bootstrap=False, max depth=20, max features=None,

```
min_samples_leaf=2, min_samples_split=5, n_estimators=196;, score=0.414 total
    time=
          8.6s
    [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=0.396 total
    time=
          8.8s
    [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=0.373 total
    time=
            9.1s
    [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=0.381 total
    time=
           9.3s
    [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=0.378 total
    time=
            9.3s
[]: RandomizedSearchCV(cv=5,
                       estimator=RandomForestClassifier(class_weight={0: 1.05,
                                                                      1: 1.05,
                                                                      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,
    8, 10, 12, 14, 16, 18, 20, 22, 24,
                                                26,
                 30,
                      32, 34, 36, 38,
                                          40, 42,
                                                   44, 46, 48, 50, 52,
                                                   70, 72, 74, 76, 78,
                 56, 58, 60,
                               62,
                                     64,
                                          66,
                                               68,
            80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104,
           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': 40,
      'min_samples_split': 9,
      'min_samples_leaf': 1,
      'max_features': None,
```

[]: <sklearn.metrics.\_plot.confusion\_matrix.ConfusionMatrixDisplay at 0x7f1d75bc22f0>



[]: <sklearn.metrics.\_plot.confusion\_matrix.ConfusionMatrixDisplay at 0x7f1d7580ebc0>



## Evaluate improvment

```
Model Performance
Accuracy = 0.397%.
Model Performance
Accuracy = 0.443%.
Improvement of 11.774%.
```

[]: