## NBA PyCaret

November 24, 2021



```
[2]: import pandas as pd
     import numpy as np
     import matplotlib.pyplot as plt
     import os
     import time
     from scipy.stats import reciprocal
     import pycaret as py
     from pycaret.classification import *
[3]: NBA_Data = (r'https://raw.githubusercontent.com/pycaret/pycaret/master/datasets/
     ⇔nba.csv')
     NBA = pd.read_csv(NBA_Data)
     NBA.head()
[3]:
                   Name
                         GP
                              MIN
                                   PTS
                                        FGM FGA
                                                   FG%
                                                        3P Made
                                                                 3PA
                                                                       3P% FTM
                                                            0.5 2.1
                                                                      25.0
        Brandon Ingram
                         36
                             27.4
                                   7.4
                                        2.6
                                            7.6
                                                  34.7
                                                                            1.6
     0
     1
       Andrew Harrison
                        35
                             26.9
                                   7.2
                                        2.0
                                             6.7
                                                  29.6
                                                            0.7 2.8
                                                                      23.5 2.6
     2
        JaKarr Sampson
                        74
                             15.3
                                   5.2
                                        2.0 4.7
                                                  42.2
                                                            0.4 1.7
                                                                      24.4 0.9
                                        2.3 5.5
                                                                      22.6 0.9
     3
           Malik Sealy
                        58
                             11.6
                                   5.7
                                                 42.6
                                                            0.1
                                                                 0.5
     4
           Matt Geiger
                        48
                             11.5
                                   4.5
                                        1.6
                                             3.0 52.4
                                                            0.0 0.1
                                                                       0.0 1.3
                               REB
       FTA
             FT%
                  OREB
                        DREB
                                   AST
                                         STL
                                              BLK
                                                   TOV
                                                        TARGET_5Yrs
       2.3
            69.9
                          3.4
                              4.1
                                    1.9
                    0.7
                                         0.4
                                              0.4
                                                   1.3
                                                                  0
     1 3.4
            76.5
                    0.5
                          2.0
                               2.4
                                   3.7
                                         1.1
                                              0.5
                                                  1.6
                                                                  0
                                                                  0
     2 1.3 67.0
                    0.5
                          1.7
                               2.2 1.0
                                        0.5
                                             0.3 1.0
     3 1.3 68.9
                          0.9 1.9
                                   0.8
                                        0.6 0.1 1.0
                    1.0
                                                                  1
     4 1.9 67.4
                    1.0
                          1.5 2.5 0.3 0.3 0.4 0.8
                                                                  1
[4]: NBA.isnull().sum()
[4]: Name
                     0
     GΡ
                     0
    MIN
                     0
    PTS
                     0
    FGM
                     0
    FGA
                     0
    FG%
                     0
     3P Made
                     0
     3PA
                     0
     3P%
                    11
     FTM
                     0
    FTA
                     0
    FT%
                     0
     OREB
                     0
    DREB
                     0
     REB
                     0
     AST
                     0
```

```
BLK
                      0
     TOV
                      0
     TARGET_5Yrs
                      0
     dtype: int64
[5]: NBA=NBA.dropna()
[6]: NBA.isnull().sum()
[6]: Name
                     0
     GP
                     0
                     0
    MIN
    PTS
                     0
    FGM
                     0
    FGA
                     0
    FG%
                     0
     3P Made
                     0
     3PA
                     0
     3P%
                     0
     FTM
                     0
     FTA
                     0
     FT%
                     0
     OREB
                     0
    DREB
                     0
     REB
                     0
     AST
                     0
     STL
                     0
     BLK
                     0
     TOV
                     0
     TARGET_5Yrs
                     0
     dtype: int64
[7]: clf=setup(data=NBA,target='TARGET_5Yrs')
    <pandas.io.formats.style.Styler at 0x253040ae490>
[8]: compare_models()
    <pandas.io.formats.style.Styler at 0x25303f7d580>
[8]: RidgeClassifier(alpha=1.0, class_weight=None, copy_X=True, fit_intercept=True,
                      max_iter=None, normalize=False, random_state=1763,
                      solver='auto', tol=0.001)
[]:
```

STL

0