

```
In [6]: import os
import numpy as np
import pandas as pd

from matplotlib import pyplot as plt
import matplotlib.style as style
import seaborn as sns

style.use('fivethirtyeight')
```

## Load in Data

```
In [7]: nk_pg = pd.read_csv('Jokic_per_game.csv', delimiter=',')
nk_p100 = pd.read_csv('Jokic_per_100_poss.csv', delimiter=',')
nk_p36 = pd.read_csv('Jokic_per_36.csv', delimiter=',')
nk_ca = pd.read_csv('Jokic_carreer_advanced.csv', delimiter=',')

thj_pg = pd.read_csv('thj_per_game.csv', delimiter = ',')
thj_ca = pd.read_csv('thj_carreer_advanced.csv', delimiter = ',')
```

## Player I Like: Nikola 'The Joker' Jokic

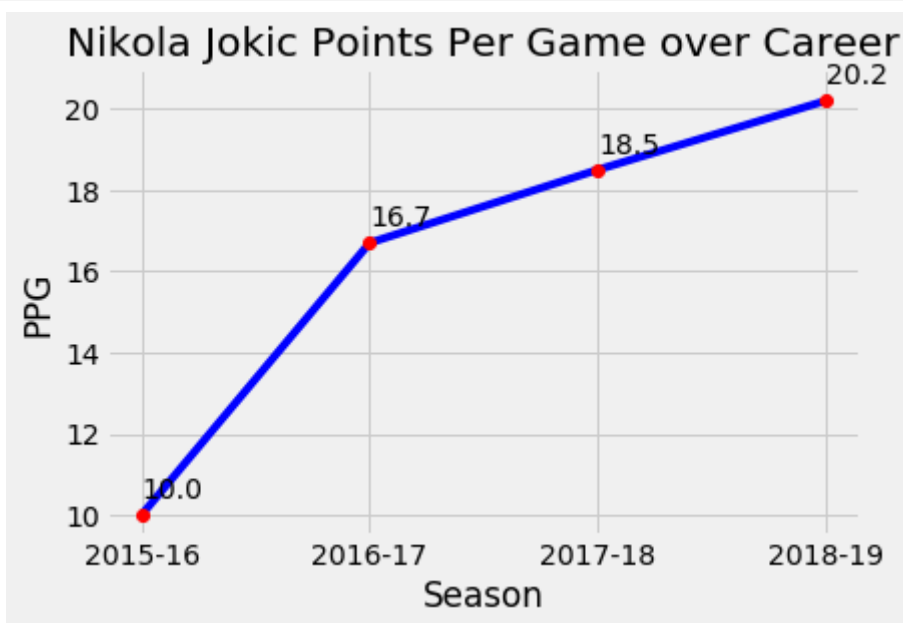
```
In [62]: # PPG
fig_h, axes_arr = plt.subplots(nrows=1, ncols=1, sharex=True)

plt.xlabel('Season');
plt.ylabel('PPG');
plt.ylim(9.5, 21.0)
plt.title("Nikola Jokic Points Per Game over Career")
sn = nk_pg.loc[:, "Season"]
ppg = nk_pg.loc[:, "PTS"]

lp = plt.plot(nk_pg.loc[:, "Season"], nk_pg.loc[:, "PTS"], 'b') #training
lp + plt.plot(nk_pg.loc[:, "Season"], nk_pg.loc[:, "PTS"], 'ro') #validat

for i in range(len(ppg)):
    axes_arr.annotate(str(ppg[i]), xy = (sn[i],ppg[i]), xytext= (sn[i],ppg[

plt.show()
```



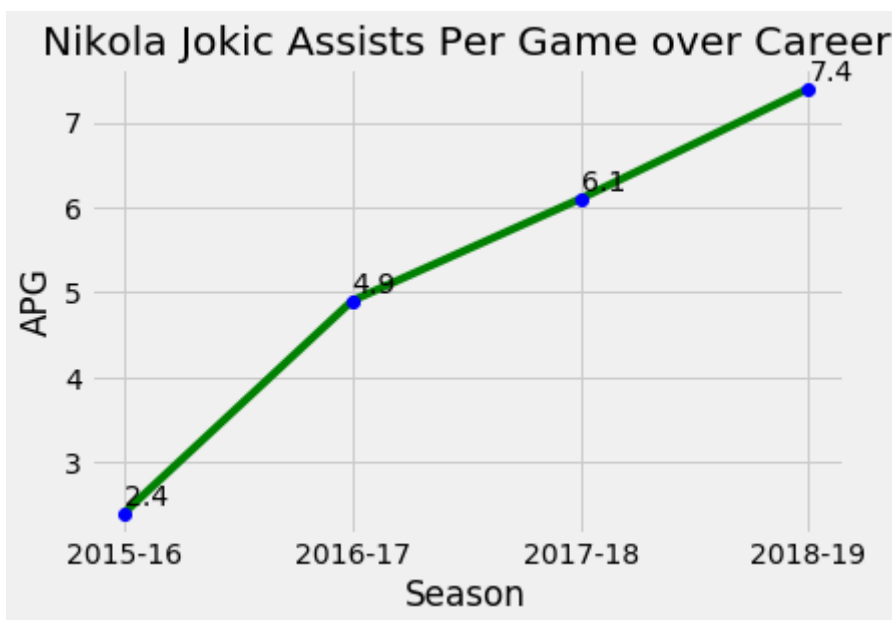
```
In [65]: #APG
fig_h, axes_arr = plt.subplots(nrows=1, ncols=1, sharex=True)

plt.xlabel('Season');
plt.ylabel('APG');
plt.title("Nikola Jokic Assists Per Game over Career")
sn = nk_pg.loc[:, "Season"]
ast = nk_pg.loc[:, "AST"]

lp = plt.plot(nk_pg.loc[:, "Season"], nk_pg.loc[:, "AST"], 'g') #training
lp + plt.plot(nk_pg.loc[:, "Season"], nk_pg.loc[:, "AST"], 'bo') #validat

for i in range(len(ast)):
    axes_arr.annotate(str(ast[i]), xy = (sn[i],ast[i]), xytext= (sn[i],ast[

plt.show()
```



```

In [90]: #PER
fig_h, axes_arr = plt.subplots(nrows=1, ncols=1, sharex=True)

plt.xlabel('Season');
plt.ylabel('PER');
plt.title("Nikola Jokic PER over Career")
plt.ylim(14,28)
sn = nk_ca.loc[:, "Season"]
per = nk_ca.loc[:, "PER"]

avg = [15.00,15.00,15.00,15.00,15.00]

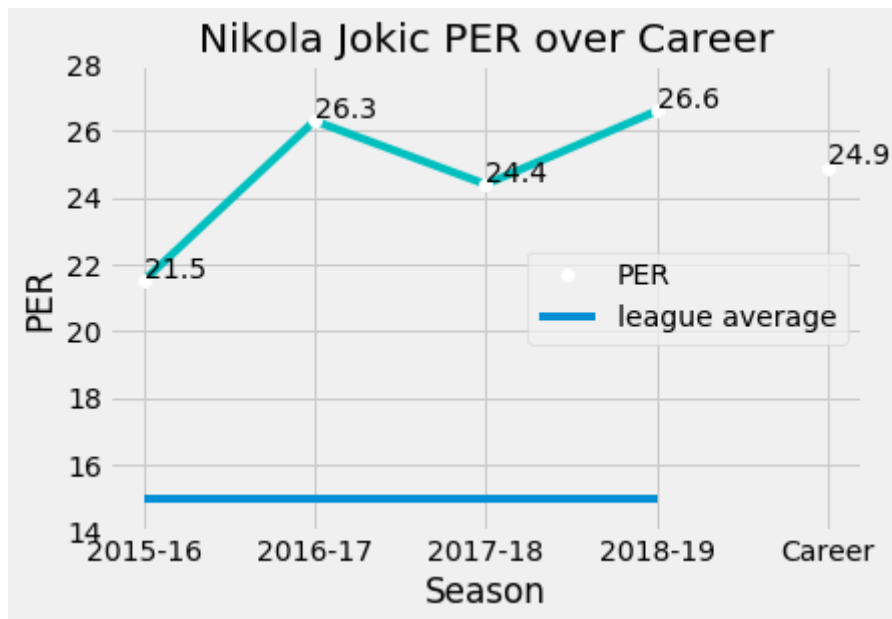
lp = plt.plot(nk_ca.loc[:, "Season"][0:4], nk_ca.loc[:, "PER"][0:4], 'c',
lp + plt.plot(nk_ca.loc[:, "Season"], nk_ca.loc[:, "PER"], 'wo') #validation
lp + plt.plot(nk_ca.loc[:, "Season"][0:4], avg[0:4], label = 'league average')

for i in range(len(per)):
    axes_arr.annotate(str(per[i]), xy = (sn[i],per[i]), xytext= (sn[i],per[i]

plt.legend()
plt.show()

#league average PER is 15.00 every season, he ranks 5th this season

```



```

In [89]: #Win Shares
fig_h, axes_arr = plt.subplots(nrows=1, ncols=1, sharex=True)

plt.xlabel('Season');
plt.ylabel('Win Shares');
plt.title("Nikola Jokic Win Shares over Career")
sn = nk_ca.loc[:, "Season"]
ws = nk_ca.loc[:, "WS"]

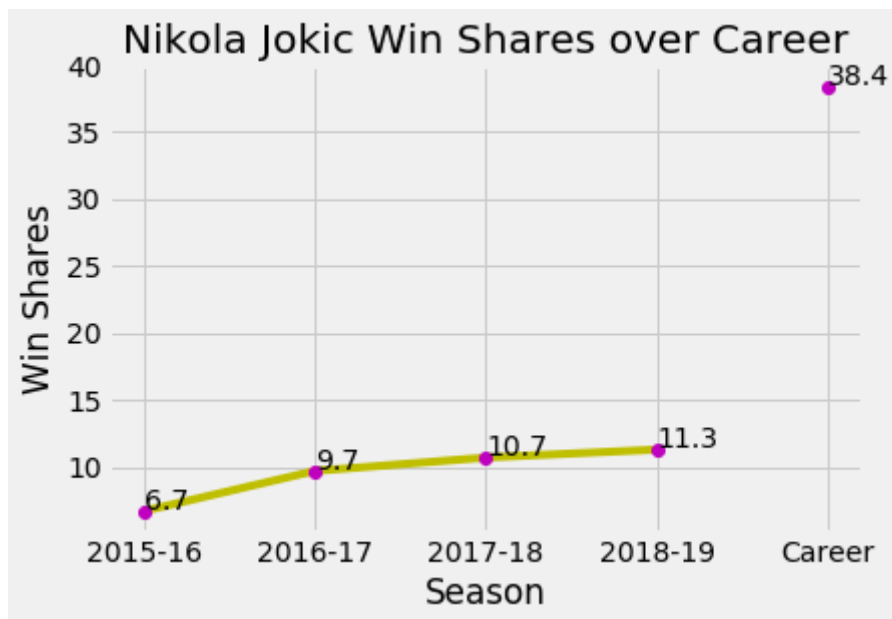
lp = plt.plot((nk_ca.loc[:, "Season"])[0:4], (nk_ca.loc[:, "WS"])[0:4], 'y')
lp + plt.plot(nk_ca.loc[:, "Season"], nk_ca.loc[:, "WS"], 'mo') #validati

for i in range(len(ws)):
    axes_arr.annotate(str(ws[i]), xy = (sn[i],ws[i]), xytext= (sn[i],ws[i])

plt.show()

#league average PER is 15.00 every season, he ranks 5th this season

```



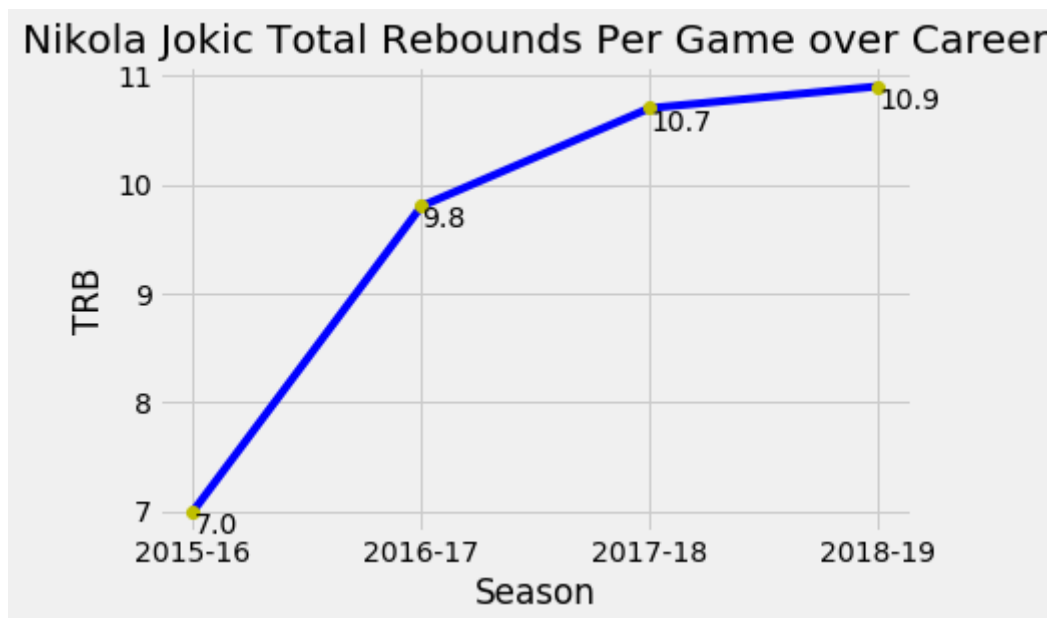
```
In [94]: # TRB
fig_h, axes_arr = plt.subplots(nrows=1, ncols=1, sharex=True)

plt.xlabel('Season');
plt.ylabel('TRB');
plt.title("Nikola Jokic Total Rebounds Per Game over Career")
sn = nk_pg.loc[:, "Season"]
trb = nk_pg.loc[:, "TRB"]

lp = plt.plot(nk_pg.loc[:, "Season"], nk_pg.loc[:, "TRB"], 'b') #training
lp + plt.plot(nk_pg.loc[:, "Season"], nk_pg.loc[:, "TRB"], 'yo') #validation

for i in range(len(trb)):
    axes_arr.annotate(str(trb[i]), xy = (sn[i],trb[i]), xytext= (sn[i],trb[

plt.show()
```



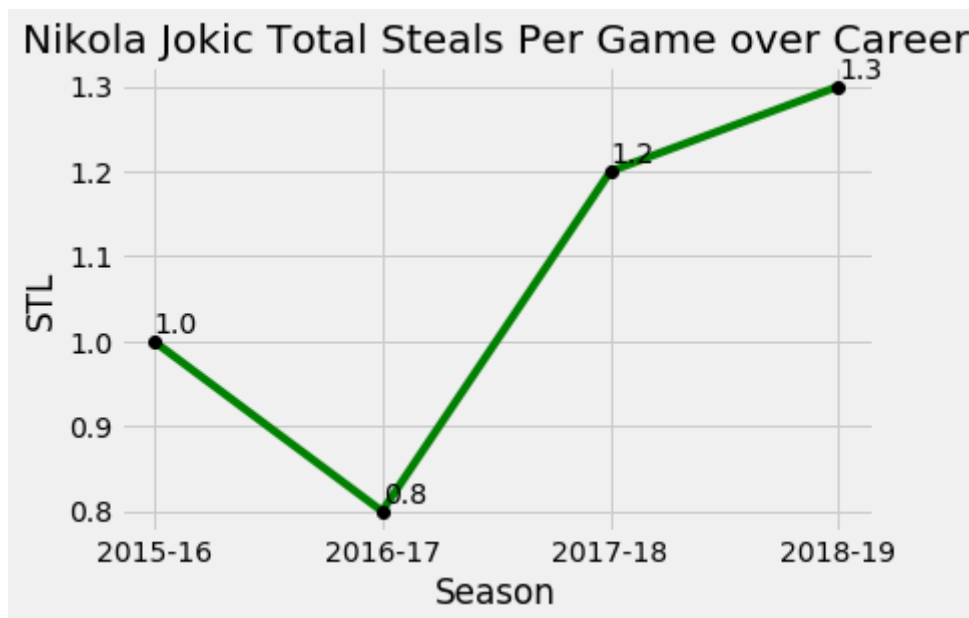
```
In [99]: # STL
fig_h, axes_arr = plt.subplots(nrows=1, ncols=1, sharex=True)

plt.xlabel('Season');
plt.ylabel('STL');
plt.title("Nikola Jokic Total Steals Per Game over Career")
sn = nk_pg.loc[:, "Season"]
stl = nk_pg.loc[:, "STL"]

lp = plt.plot(nk_pg.loc[:, "Season"], nk_pg.loc[:, "STL"], 'g') #training
lp + plt.plot(nk_pg.loc[:, "Season"], nk_pg.loc[:, "STL"], 'ko') #validat

for i in range(len(stl)):
    axes_arr.annotate(str(stl[i]), xy = (sn[i],stl[i]), xytext= (sn[i],stl[

plt.show()
```



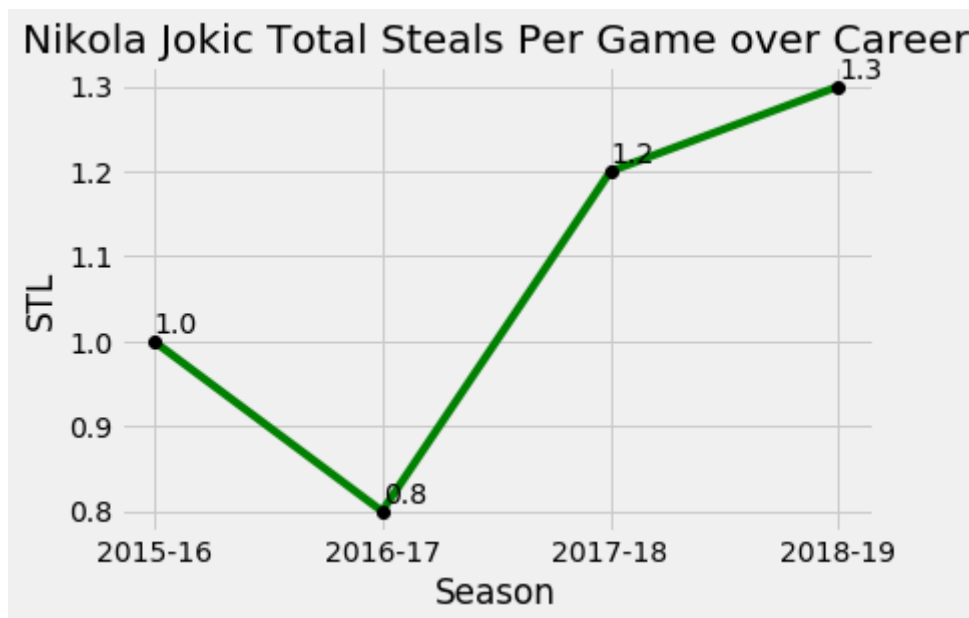
```
In [99]: # STL
fig_h, axes_arr = plt.subplots(nrows=1, ncols=1, sharex=True)

plt.xlabel('Season');
plt.ylabel('STL');
plt.title("Nikola Jokic Total Steals Per Game over Career")
sn = nk_pg.loc[:, "Season"]
stl = nk_pg.loc[:, "STL"]

lp = plt.plot(nk_pg.loc[:, "Season"], nk_pg.loc[:, "STL"], 'g') #training
lp + plt.plot(nk_pg.loc[:, "Season"], nk_pg.loc[:, "STL"], 'ko') #validat

for i in range(len(stl)):
    axes_arr.annotate(str(stl[i]), xy = (sn[i],stl[i]), xytext= (sn[i],stl[

plt.show()
```



**Player I Dislike: Tim Hardaway Jr.**



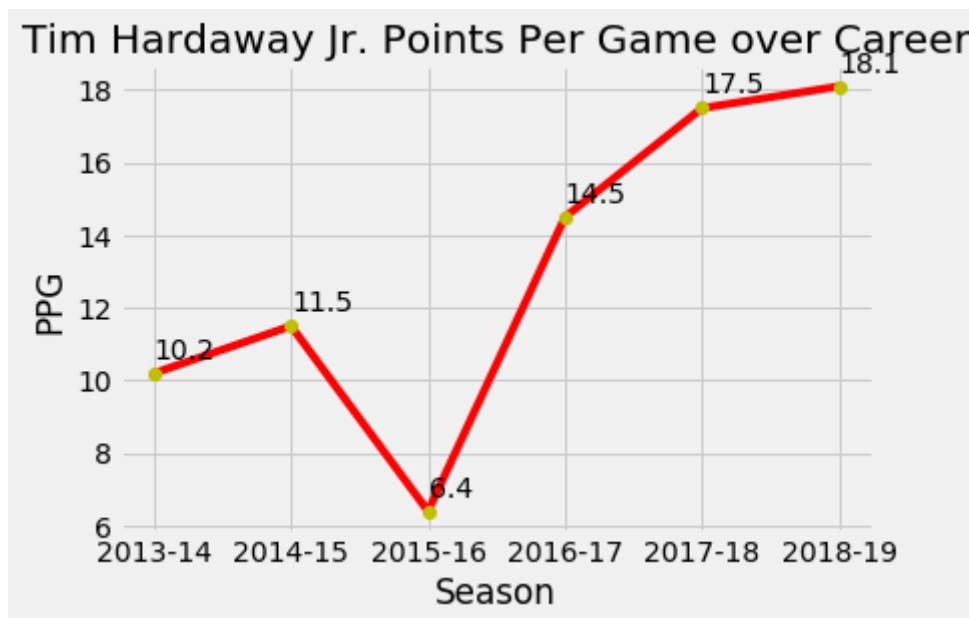
```
In [22]: # PPG
fig_h, axes_arr = plt.subplots(nrows=1, ncols=1, sharex=True)

plt.xlabel('Season');
plt.ylabel('PPG');
plt.title("Tim Hardaway Jr. Points Per Game over Career")
sn = thj_pg.loc[:, "Season"]
ppg = thj_pg.loc[:, "PTS"]

lp = plt.plot(thj_pg.loc[:, "Season"], thj_pg.loc[:, "PTS"], 'r') #trainin
lp + plt.plot(thj_pg.loc[:, "Season"], thj_pg.loc[:, "PTS"], 'yo') #valid

for i in range(len(ppg)):
    axes_arr.annotate(str(ppg[i]), xy = (sn[i],ppg[i]), xytext= (sn[i],ppg[

plt.show()
```



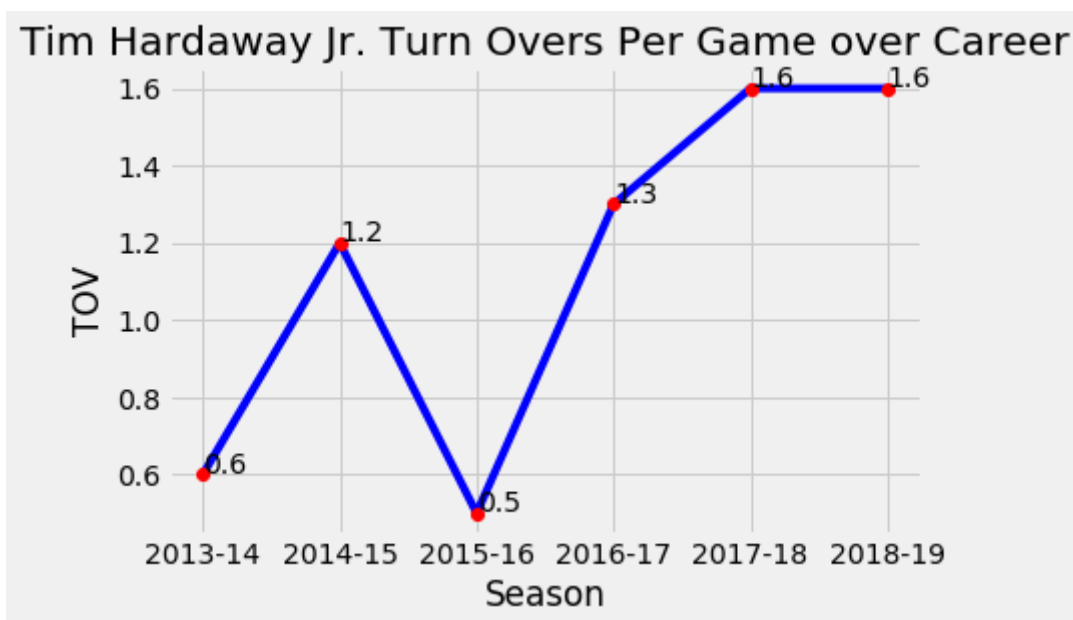
```
In [13]: # TOV
fig_h, axes_arr = plt.subplots(nrows=1, ncols=1, sharex=True)

plt.xlabel('Season');
plt.ylabel('TOV');
plt.title("Tim Hardaway Jr. Turn Overs Per Game over Career")
sn = thj_pg.loc[:, "Season"]
tov = thj_pg.loc[:, "TOV"]

lp = plt.plot(thj_pg.loc[:, "Season"], thj_pg.loc[:, "TOV"], 'b') #trainin
lp + plt.plot(thj_pg.loc[:, "Season"], thj_pg.loc[:, "TOV"], 'ro') #valid

for i in range(len(tov)):
    axes_arr.annotate(str(tov[i]), xy = (sn[i],tov[i]), xytext= (sn[i],tov[

plt.show()
```



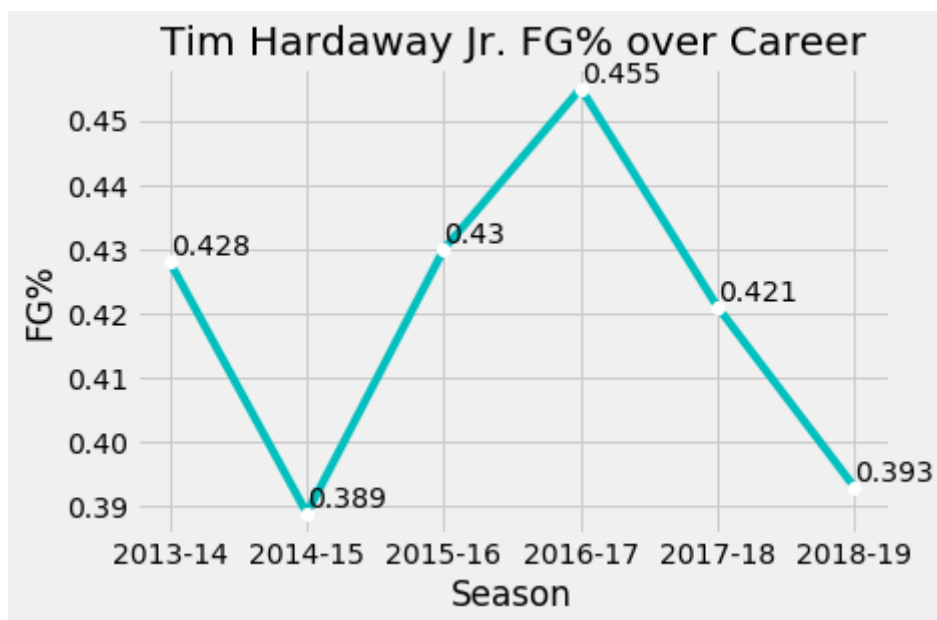
```
In [20]: # FG%
fig_h, axes_arr = plt.subplots(nrows=1, ncols=1, sharex=True)

plt.xlabel('Season');
plt.ylabel('FG%');
plt.title("Tim Hardaway Jr. FG% over Career")
sn = thj_pg.loc[:, "Season"]
fg = thj_pg.loc[:, "FG%"]

lp = plt.plot(thj_pg.loc[:, "Season"], thj_pg.loc[:, "FG%"], 'c') #trainin
lp + plt.plot(thj_pg.loc[:, "Season"], thj_pg.loc[:, "FG%"], 'wo') #valid

for i in range(len(fg)):
    axes_arr.annotate(str(round(fg[i],3)), xy = (sn[i],fg[i]), xytext= (sn[

plt.show()
```



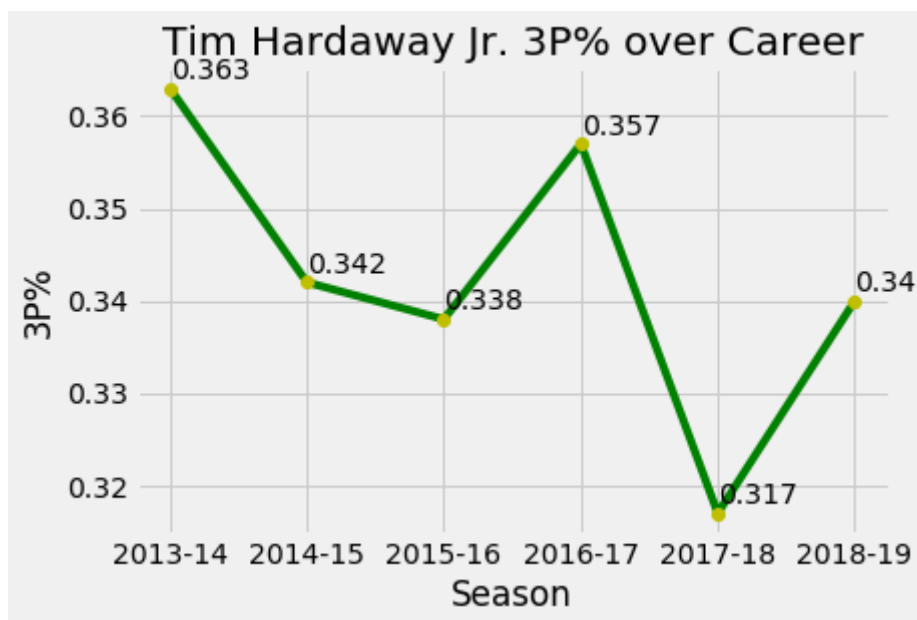
```
In [21]: # 3-FG%
fig_h, axes_arr = plt.subplots(nrows=1, ncols=1, sharex=True)

plt.xlabel('Season');
plt.ylabel('3P%');
plt.title("Tim Hardaway Jr. 3P% over Career")
sn = thj_pg.loc[:, "Season"]
fg = thj_pg.loc[:, "3P%"]

lp = plt.plot(thj_pg.loc[:, "Season"], thj_pg.loc[:, "3P%"], 'g') #trainin
lp + plt.plot(thj_pg.loc[:, "Season"], thj_pg.loc[:, "3P%"], 'yo') #valid

for i in range(len(fg)):
    axes_arr.annotate(str(round(fg[i],3)), xy = (sn[i],fg[i]), xytext= (sn[

plt.show()
```



```
In [23]: # STL
fig_h, axes_arr = plt.subplots(nrows=1, ncols=1, sharex=True)

plt.xlabel('Season');
plt.ylabel('STL');
plt.title("Tim Hardaway Jr. Steals Per Game over Career")
sn = thj_pg.loc[:, "Season"]
fg = thj_pg.loc[:, "STL"]

lp = plt.plot(thj_pg.loc[:, "Season"], thj_pg.loc[:, "STL"], 'y') #trainin
lp + plt.plot(thj_pg.loc[:, "Season"], thj_pg.loc[:, "STL"], 'mo') #valid

for i in range(len(fg)):
    axes_arr.annotate(str(round(fg[i],3)), xy = (sn[i],fg[i]), xytext= (sn[

plt.show()
```

