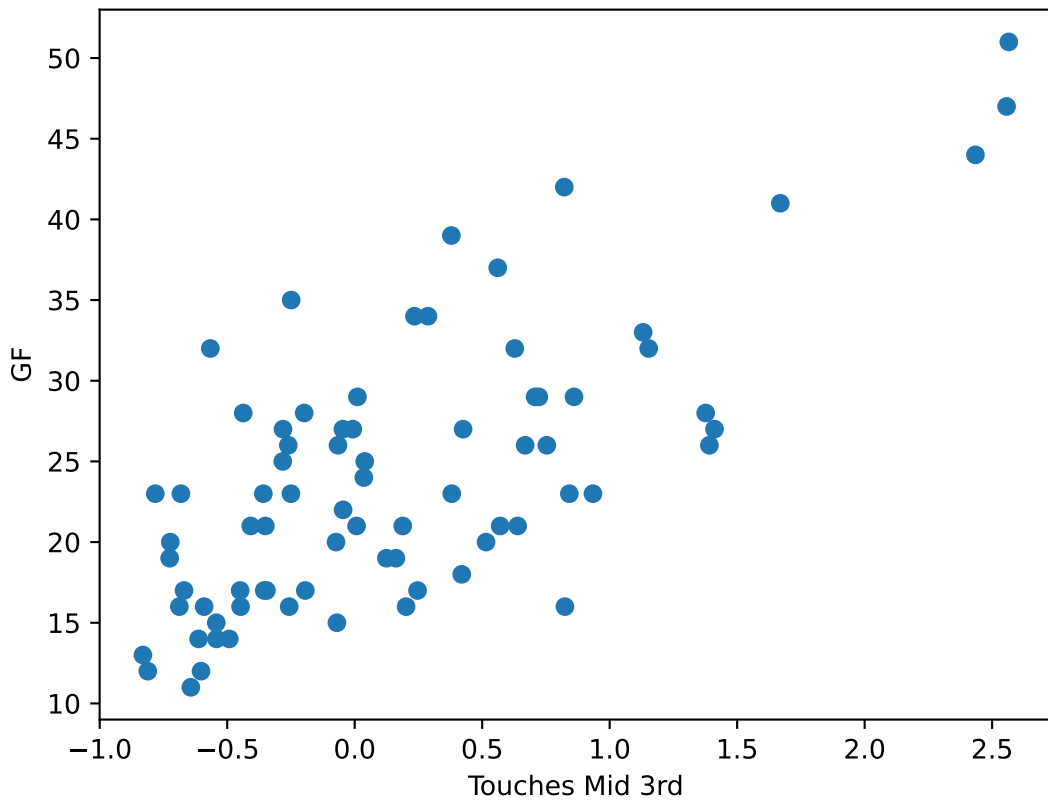
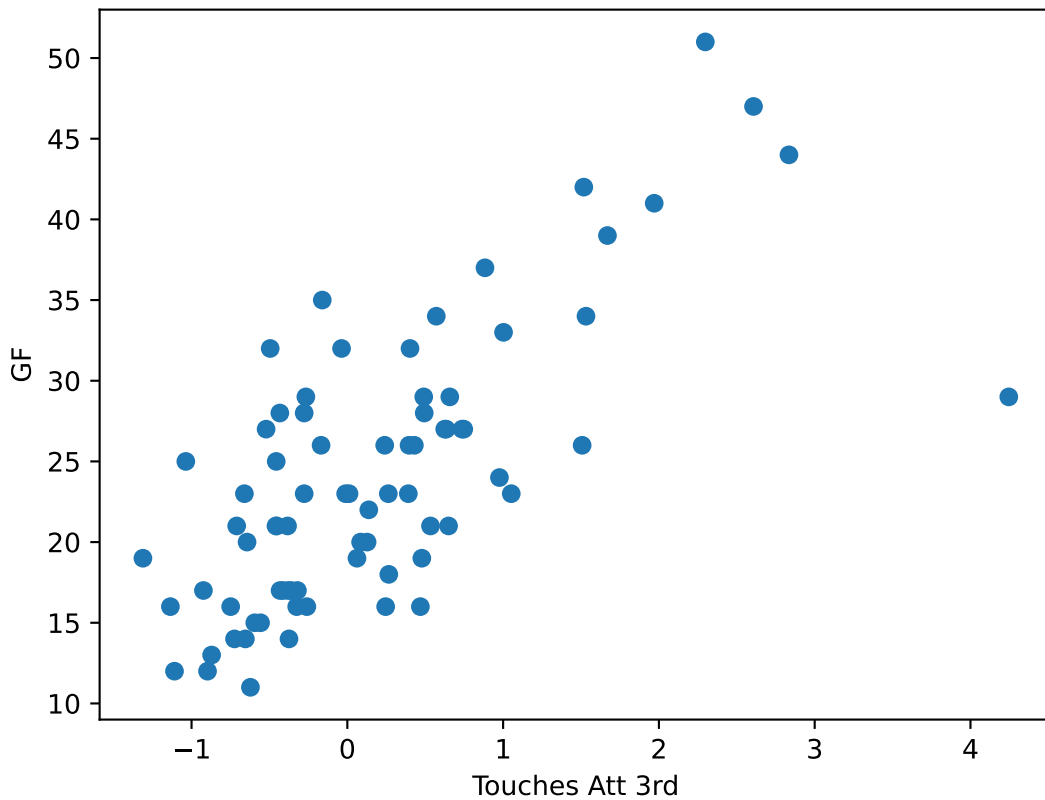


# Multiple Linear Regression Analysis

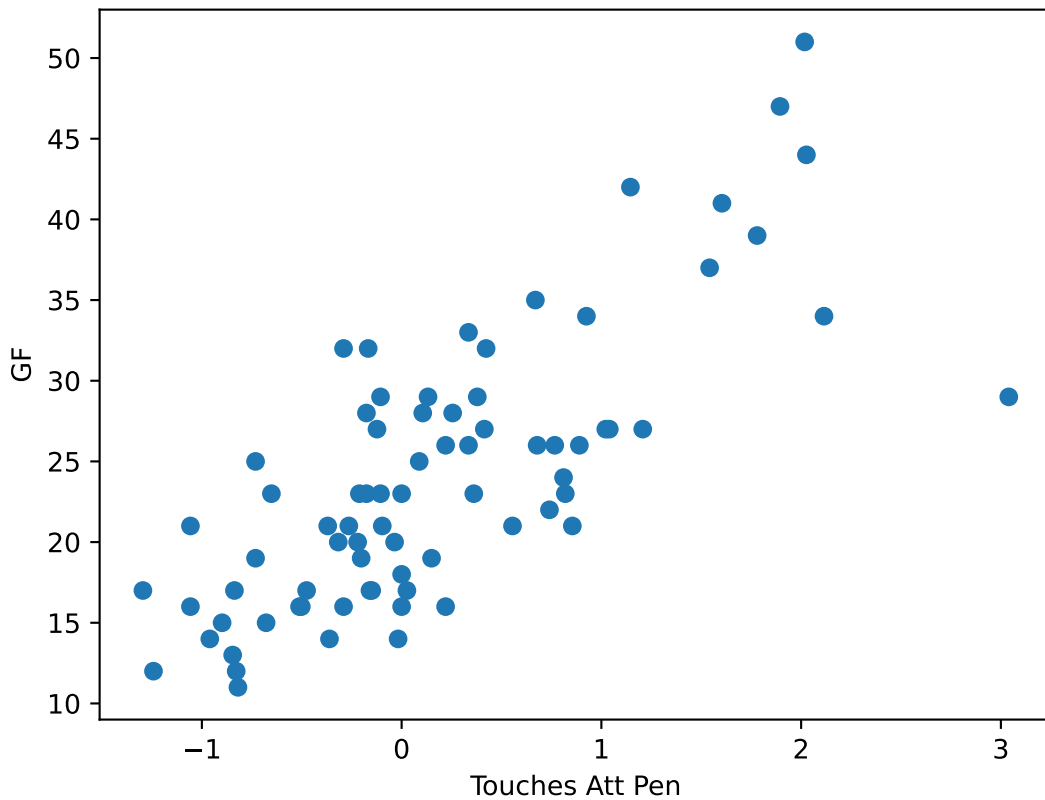
Touches Mid 3rd vs GF



Touches Att 3rd vs GF



Touches Att Pen vs GF



Reduced Final Model:

- 1. Touches Mid 3rd
- 2. Touches Att 3rd
- 3. Touches Att Pen

OLS Regression Results

Dep. Variable:

GF

R-squared:

0.690

Model:

OLS

Adj. R-squared:

0.677

Method:

Least Squares

F-statistic:

53.35

Date:

Thu, 02 Jan 2025

Prob (F-statistic):

2.88e-18

Time:

12:13:28

Log-Likelihood:

-225.48

No. Observations:

76

AIC:

459.0

Df Residuals:

72

BIC:

468.3

Df Model:

3

Covariance Type:

nonrobust

coef

std err

t

P>|t|

[0.025

0.975]

const

22.3856

0.572

39.142

0.000

21.246

23.526

Touches Mid 3rd

5.9516

1.173

5.072

0.000

3.613

8.291

Touches Att 3rd

-4.4329

1.727

-2.566

0.012

-7.876

-0.990

Touches Att Pen

8.5679

1.617

5.300

0.000

5.345

11.790

Omnibus:

0.931

Durbin-Watson:

1.984

Prob(Omnibus):

0.628

Jarque-Bera (JB):

0.901

Skew:

0.254

Prob(JB):

0.637

Kurtosis:

2.834

Cond. No.

6.27

Notes:

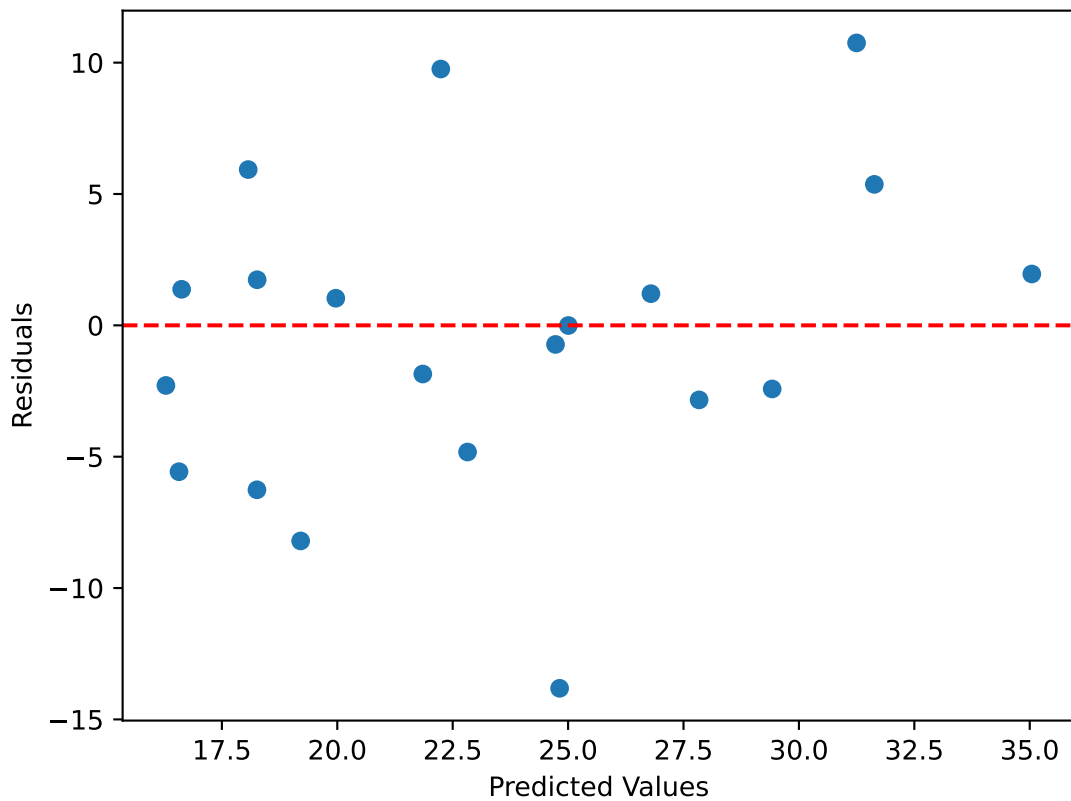
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.VIF for Reduced Model:

Variable	VIF
Touches Mid 3rd	2.670479
Touches Att 3rd	9.307427
Touches Att Pen	6.356137
Mean Squared Error on Test Set: 33.04	
Breusch-Pagan test (Equality of variance): p-value: 0.674	
Equality of Variance holds (homoscedasticity).	

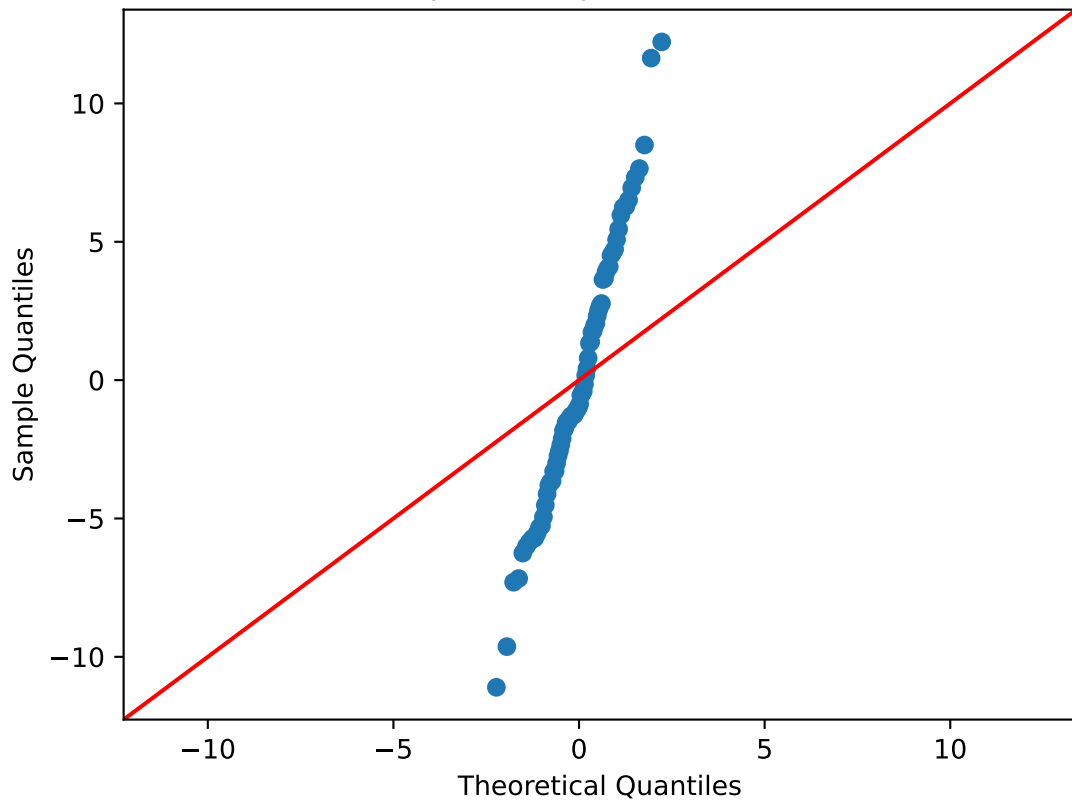
Confidence Intervals for Betas

Lower CI	Upper CI
21.24554656134591	23.52571846272466
3.6125635044862134	8.29067437570967
-7.876096830396014	-0.9896475296584915
5.345379505234288	11.79040615062949

Residual Plot



QQ Plot  
Shapiro-Wilk p-value: 0.8969





## Predictionsvs Actuals

Predicted	Actual
21.8524099946685	20.0
22.82216142654312	18.0
35.044896227676816	37.0
16.571375662929697	11.0
31.633708982523167	37.0
18.264009520077664	20.0
16.28779855261212	14.0
29.42080356834676	27.0
22.242699346984608	32.0
26.794174716282207	28.0
18.260023340705693	12.0
19.96831583336389	21.0
31.248705006453218	42.0
24.816380002012693	11.0
19.20646533718163	11.0
25.00595278436304	25.0
18.07009352262202	24.0
27.837771196253023	25.0
16.628456904679233	18.0
24.727037953962103	24.0