Lesson 21: Linear Regression

Data Science with Python – BSc Course

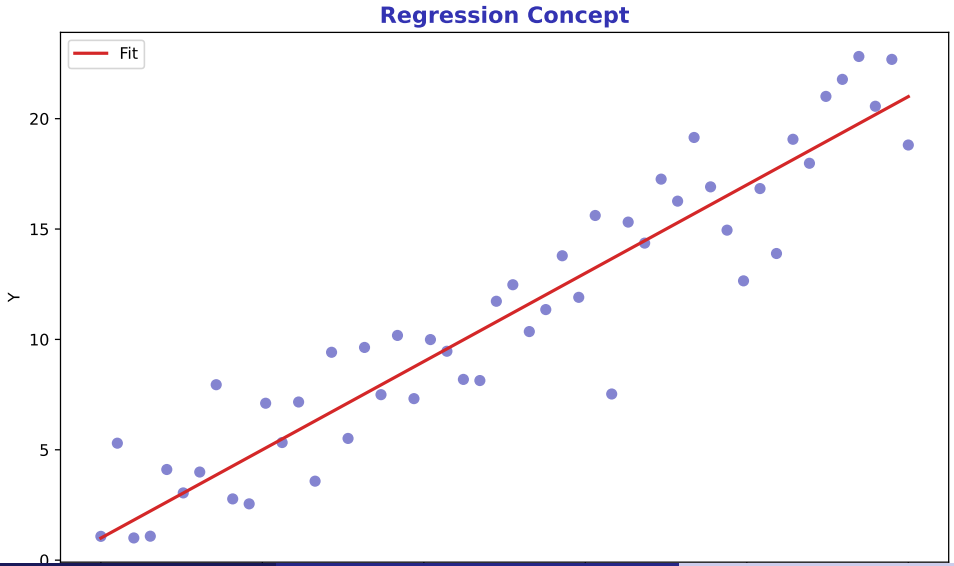
45 Minutes

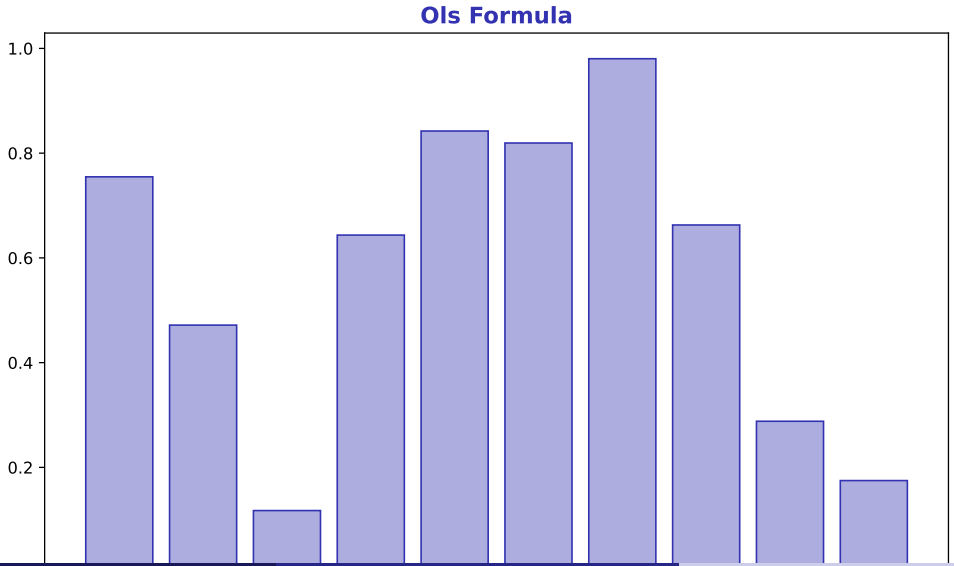
Learning Objectives

After this lesson, you will be able to:

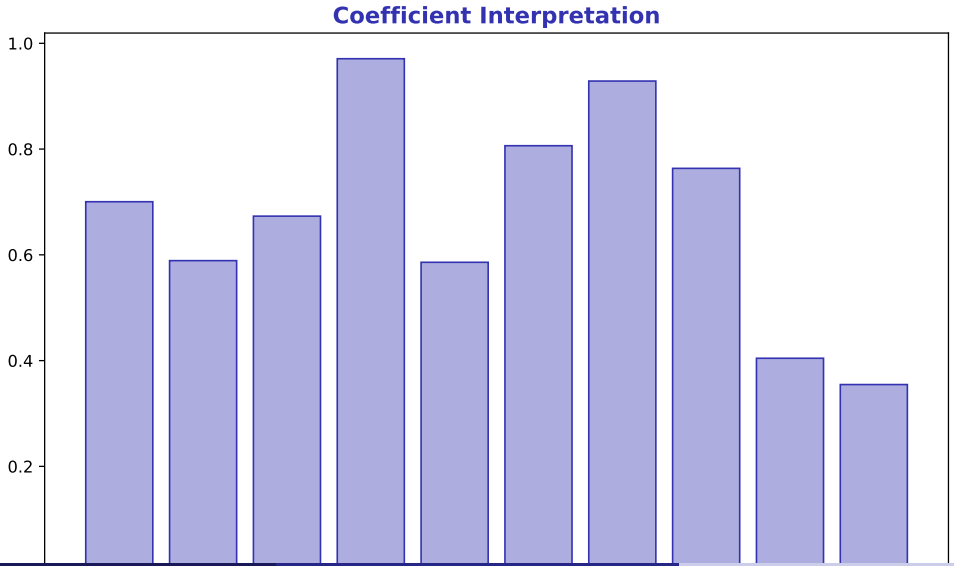
- Understand OLS estimation
- Fit linear models with sklearn
- Interpret coefficients
- Apply to stock price prediction

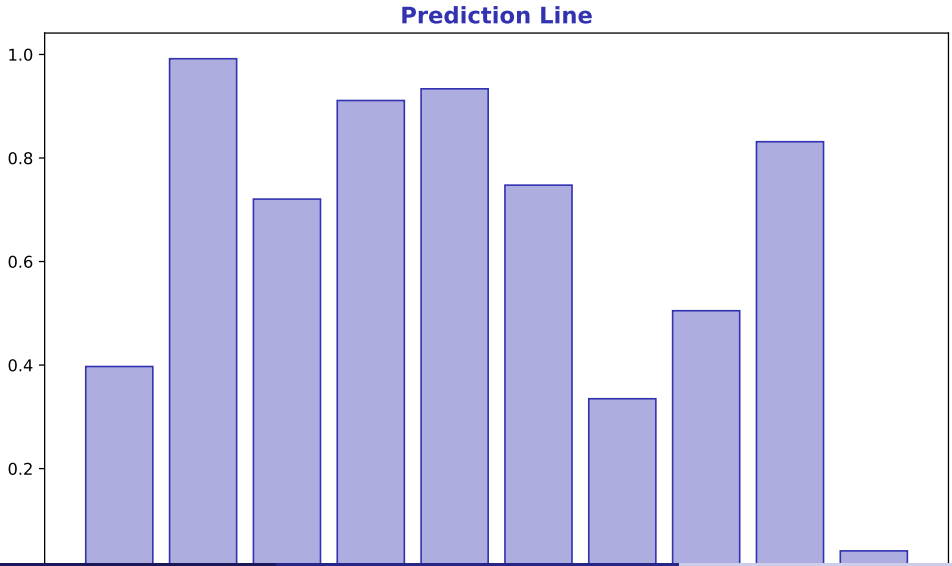
Building towards your final project

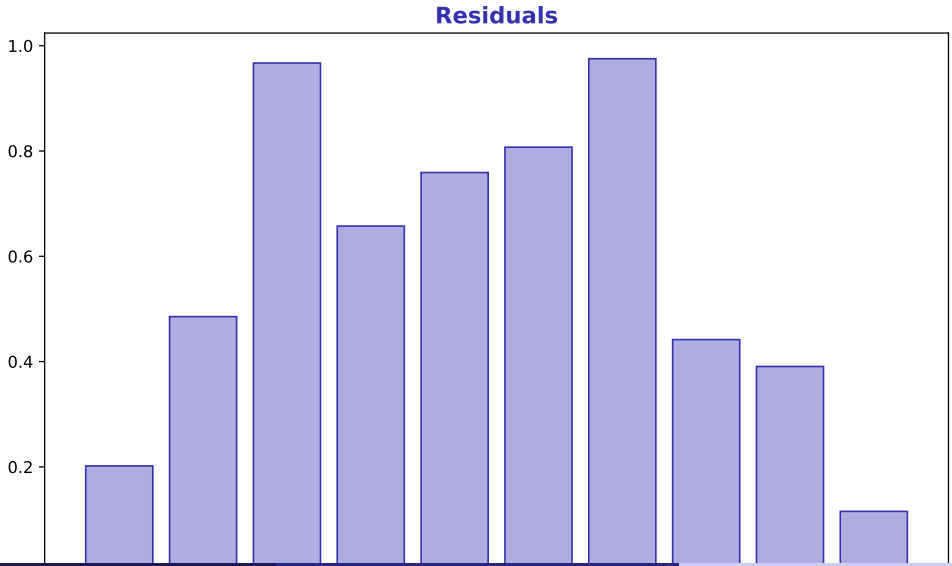

Regression Concept
Fit
Y
0
5
10
15
20

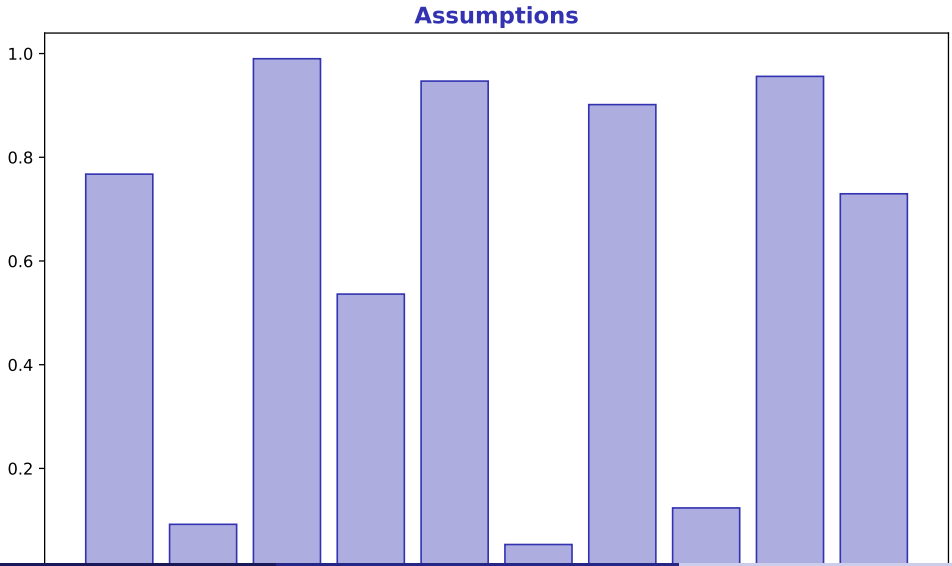

Ols Formula
1.0
0.8
0.6
0.4
0.2

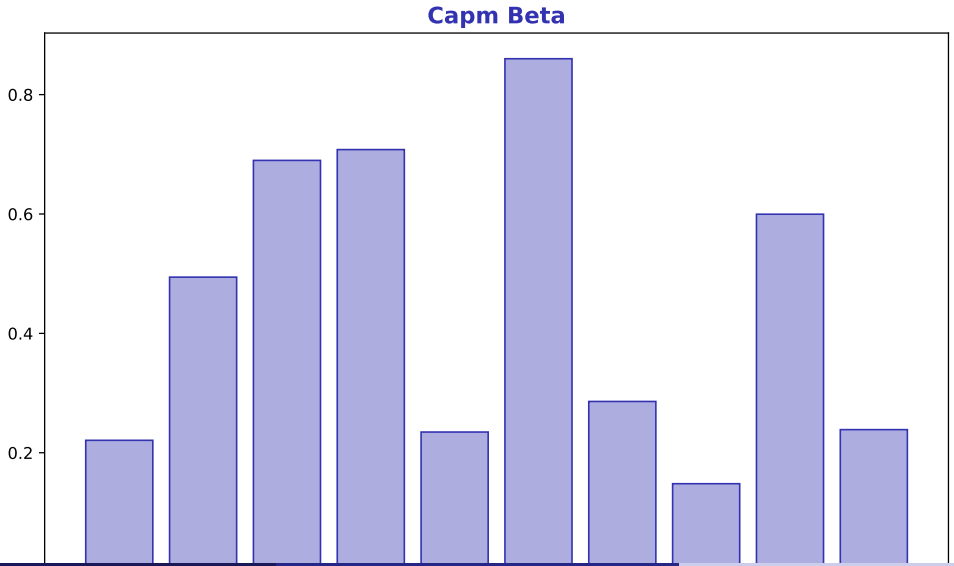
Sklearn Api


Coefficient Interpretation
1.0
0.8
0.6
0.4
0.2


Prediction Line
1.0
0.8
0.6
0.4
0.2


Residuals
1.0
0.8
0.6
0.4
0.2


Assumptions
1.0
0.8
0.6
0.4
0.2


Capm Beta
0.8
0.6
0.4
0.2

Lesson Summary

Key Takeaways:

- Understand OLS estimation
- Fit linear models with sklearn
- Interpret coefficients
- Apply to stock price prediction

Apply these skills in your final project