Lesson 26: Decision Trees

Data Science with Python – BSc Course

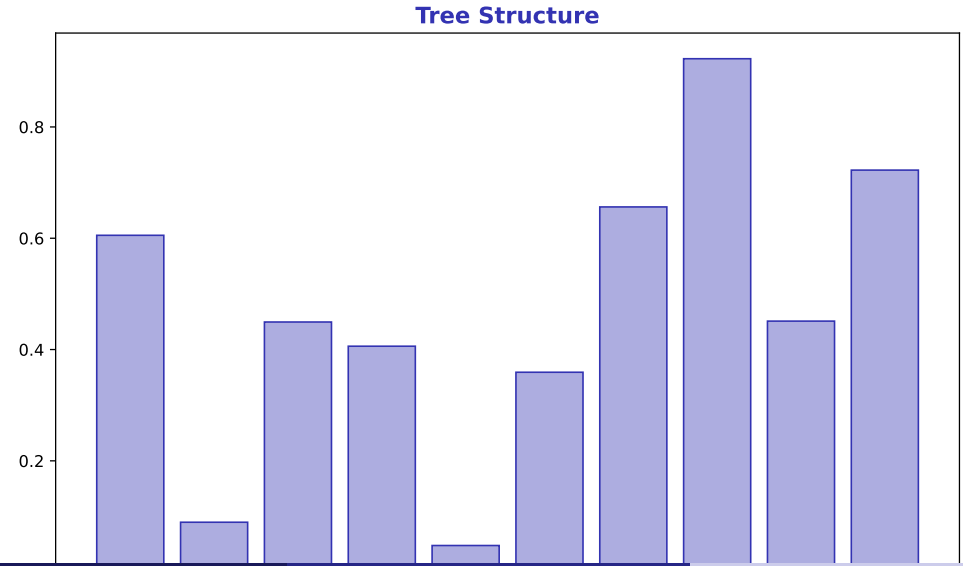
45 Minutes

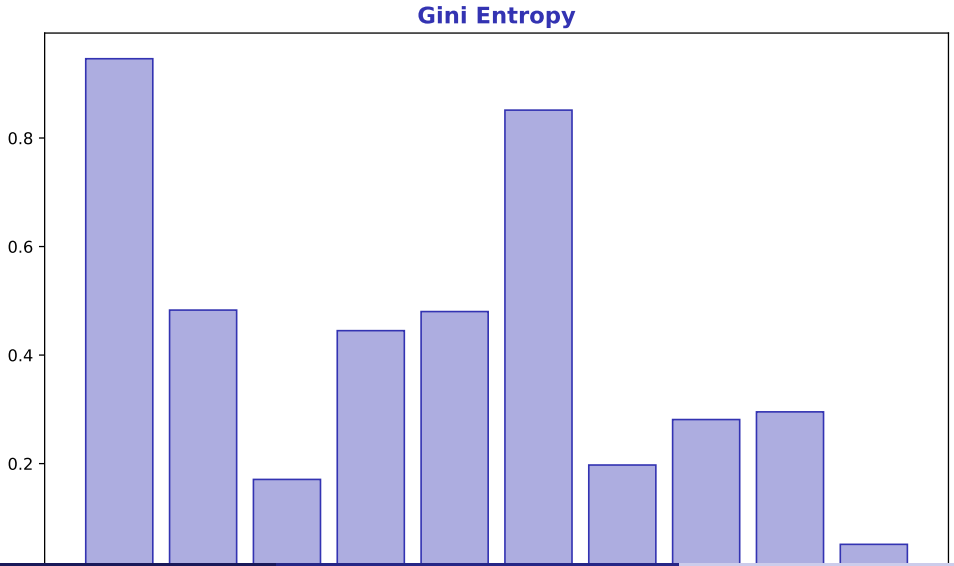
Learning Objectives

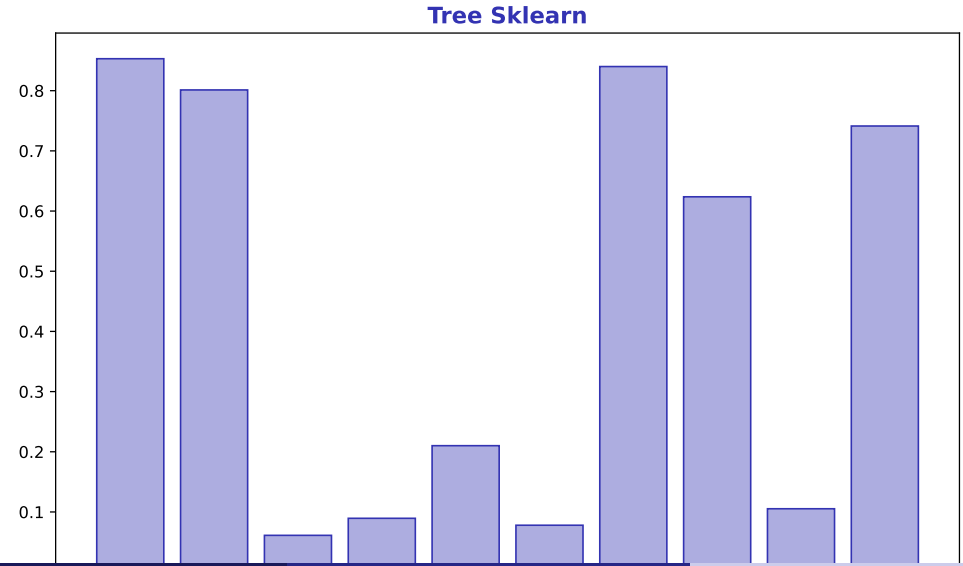
After this lesson, you will be able to:

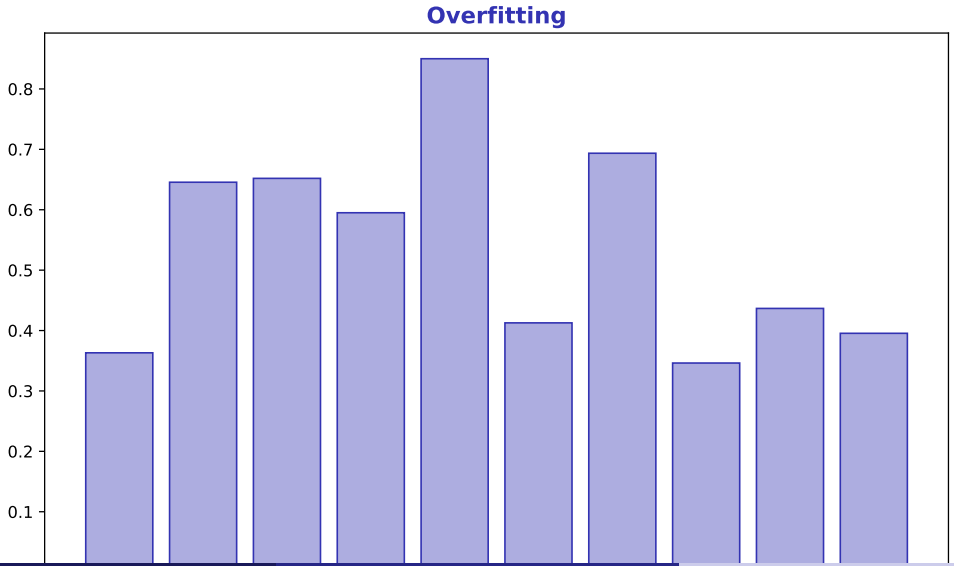
- Build decision tree classifiers
- Understand splitting criteria
- Apply Random Forest ensemble
- Interpret feature importance

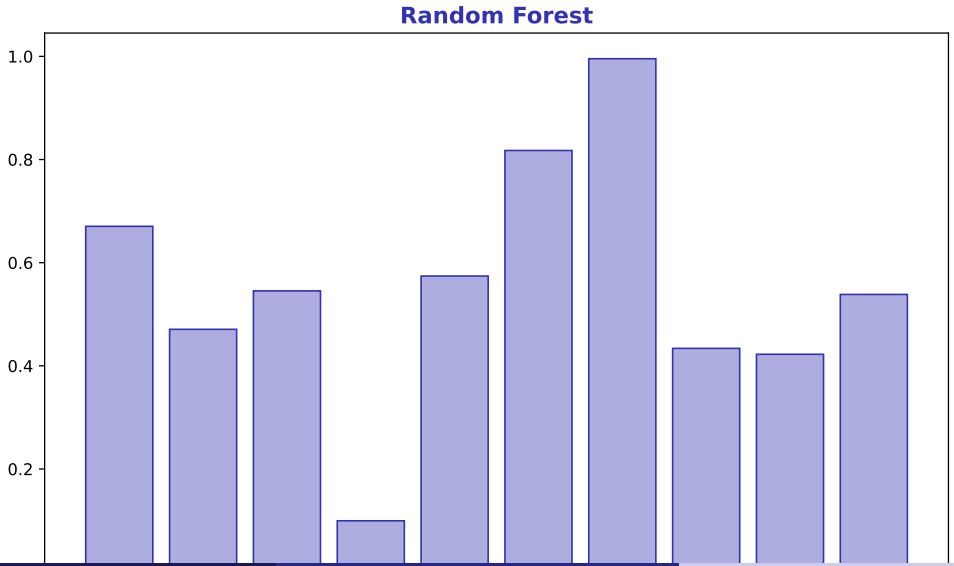
Building towards your final project


Tree Structure
0.8
0.6
0.4
0.2

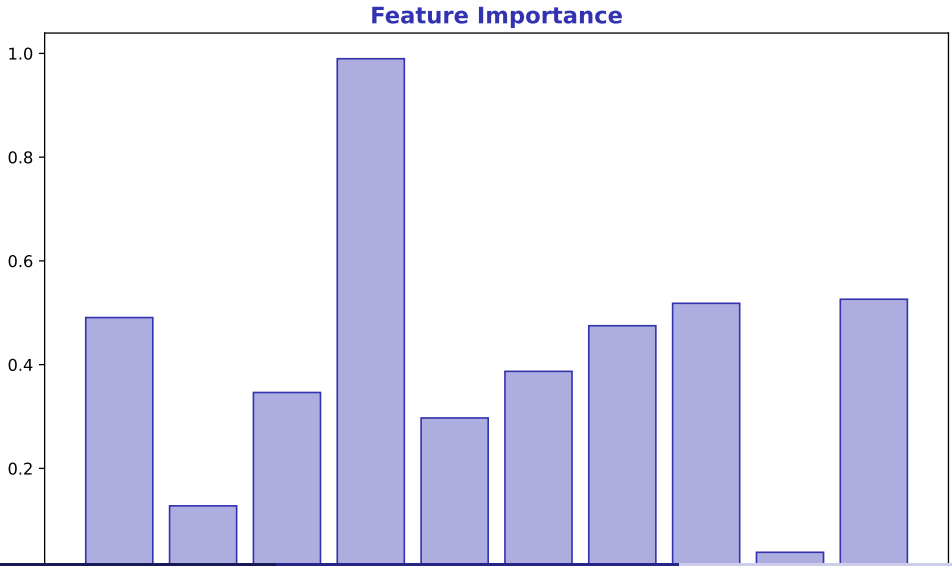

Gini Entropy
0.8
0.6
0.4
0.2

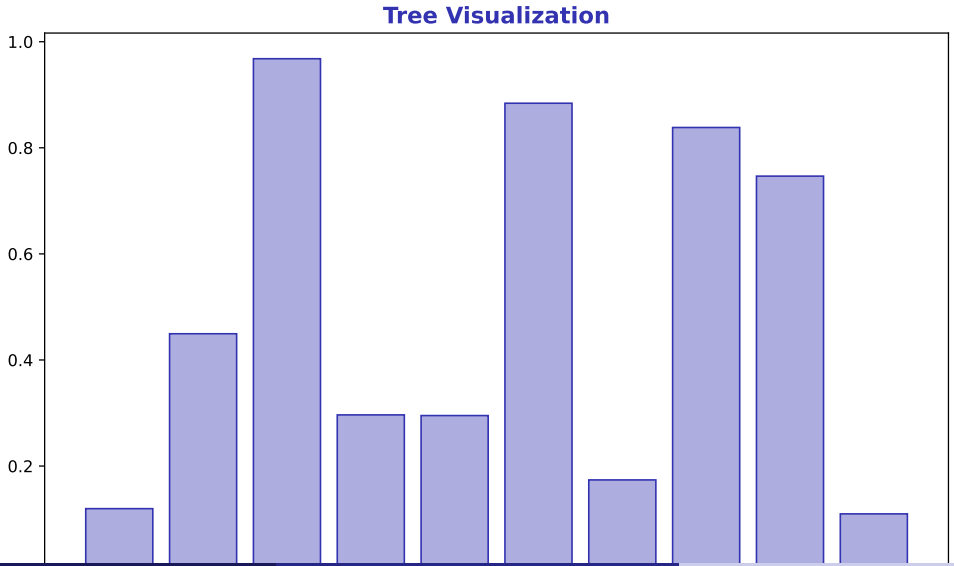

Tree Sklearn
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1

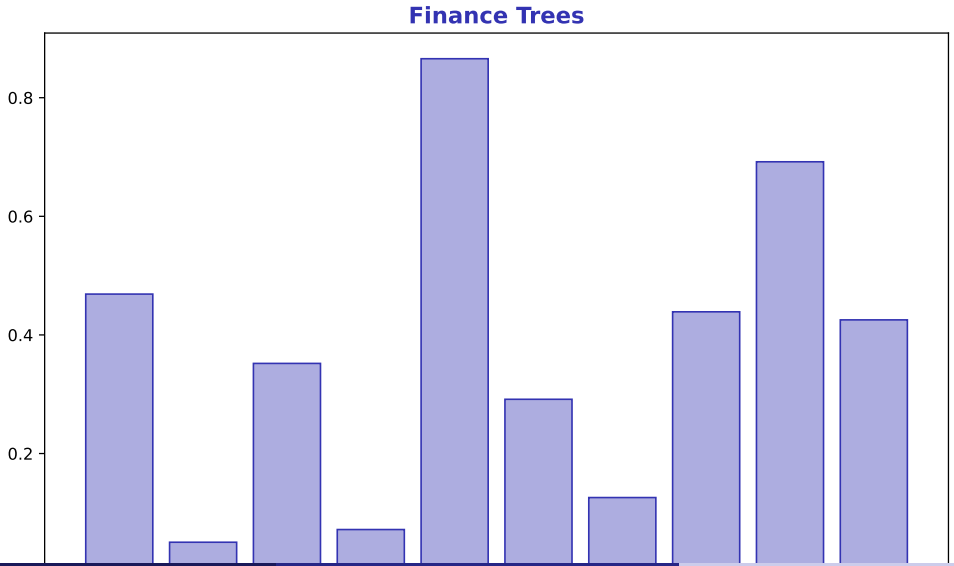

Overfitting
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1


Random Forest
1.0
0.8
0.6
0.4
0.2

Feature Importance




Tree Visualization
1.0
0.8
0.6
0.4
0.2


Finance Trees
0.8
0.6
0.4
0.2

Lesson Summary

Key Takeaways:

- Build decision tree classifiers
- Understand splitting criteria
- Apply Random Forest ensemble
- Interpret feature importance

Apply these skills in your final project