Lesson 36: Overfitting Prevention

Data Science with Python – BSc Course

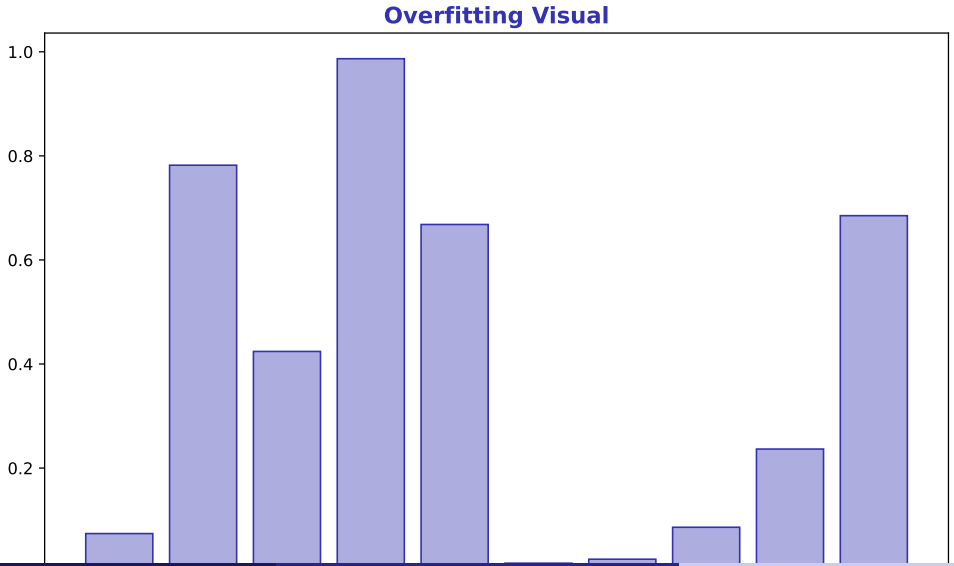
45 Minutes

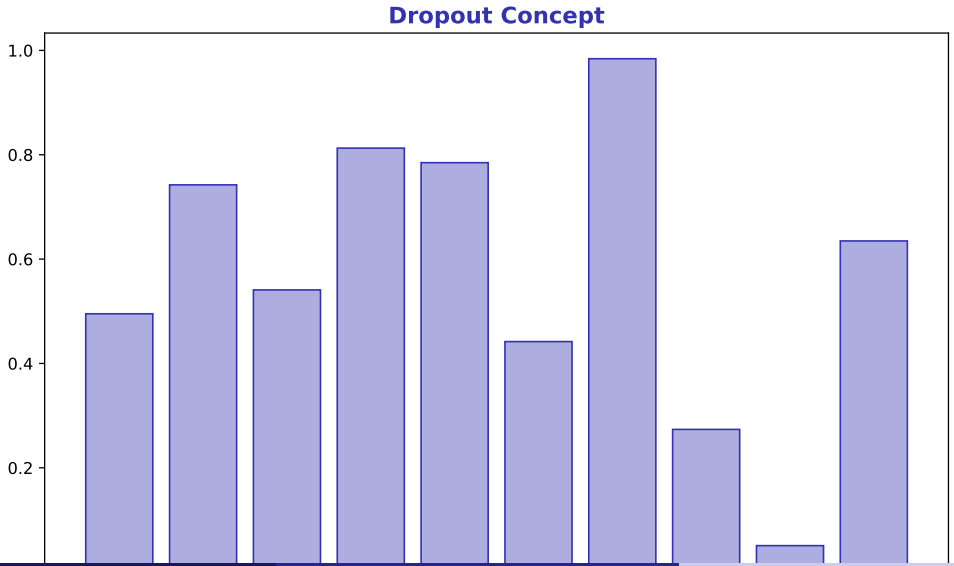
Learning Objectives

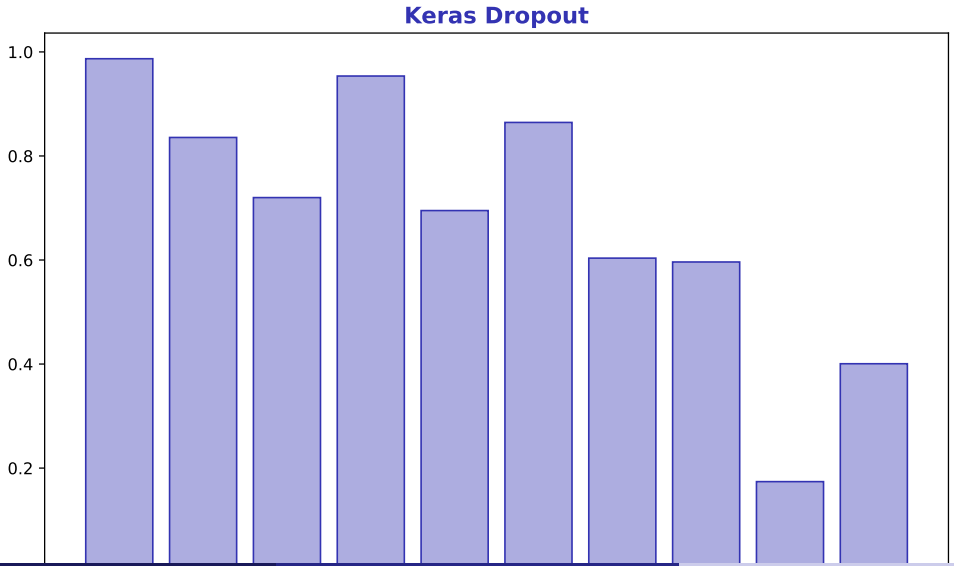
After this lesson, you will be able to:

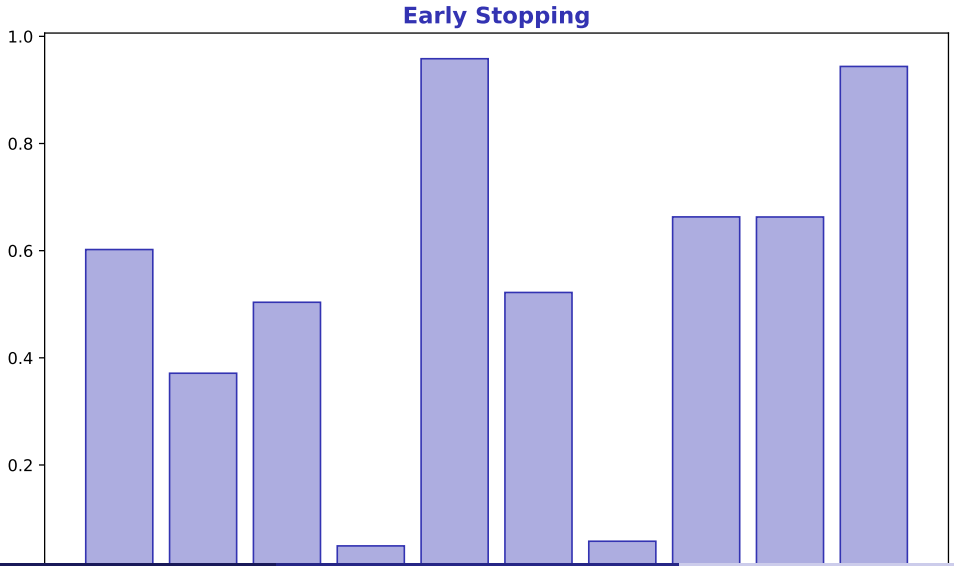
- Apply dropout regularization
- Use early stopping
- Diagnose overfitting
- Build robust models

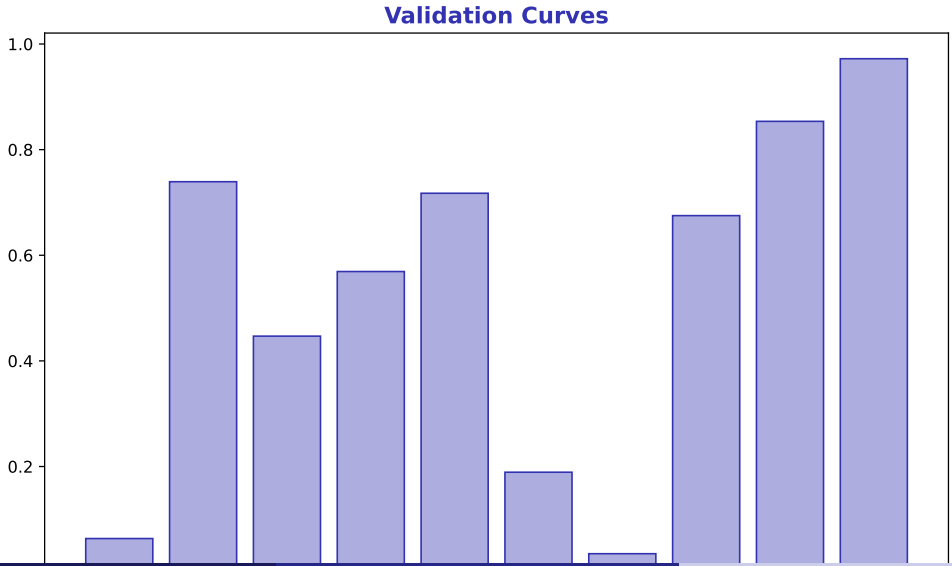
Building towards your final project

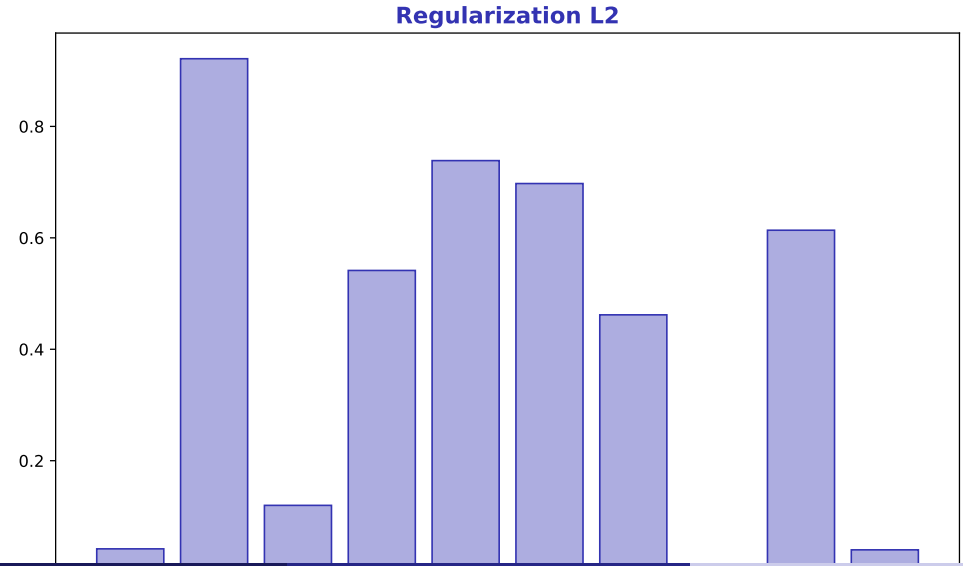

Overfitting Visual
1.0
0.8
0.6
0.4
0.2

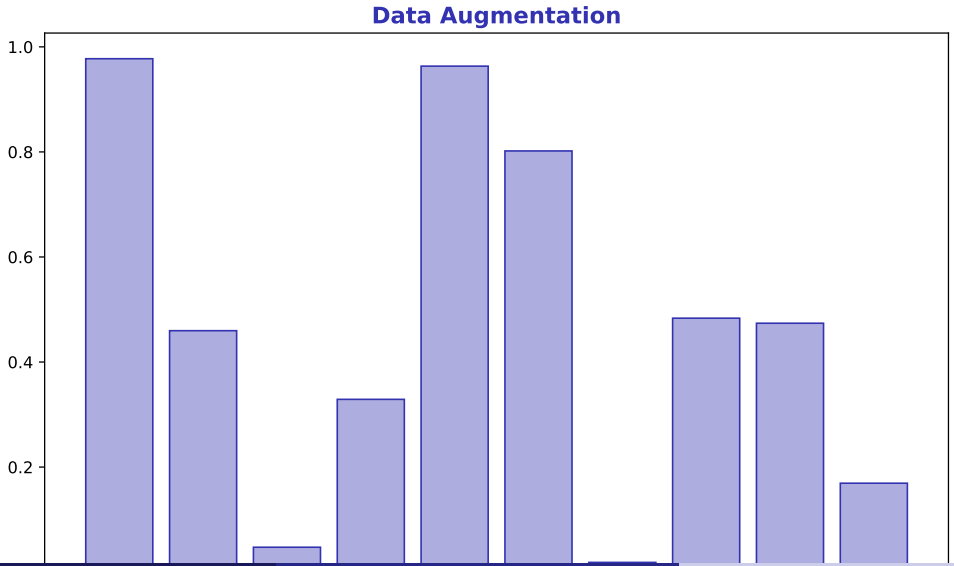

Dropout Concept
1.0
0.8
0.6
0.4
0.2

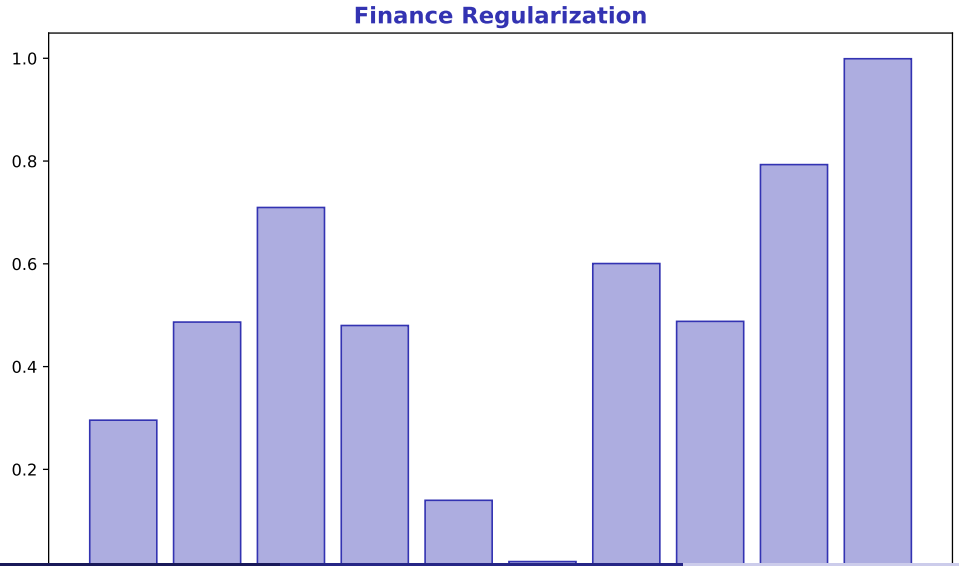

Keras Dropout
1.0
0.8
0.6
0.4
0.2


Early Stopping
1.0
0.8
0.6
0.4
0.2


Validation Curves
1.0
0.8
0.6
0.4
0.2


Regularization L2
0.8
0.6
0.4
0.2


Data Augmentation
1.0
0.8
0.6
0.4
0.2


Finance Regularization
1.0
0.8
0.6
0.4
0.2

Lesson Summary

Key Takeaways:

- Apply dropout regularization
- Use early stopping
- Diagnose overfitting
- Build robust models

Apply these skills in your final project