

## Lesson 35: Backpropagation

Data Science with Python – BSc Course

45 Minutes

# Learning Objectives

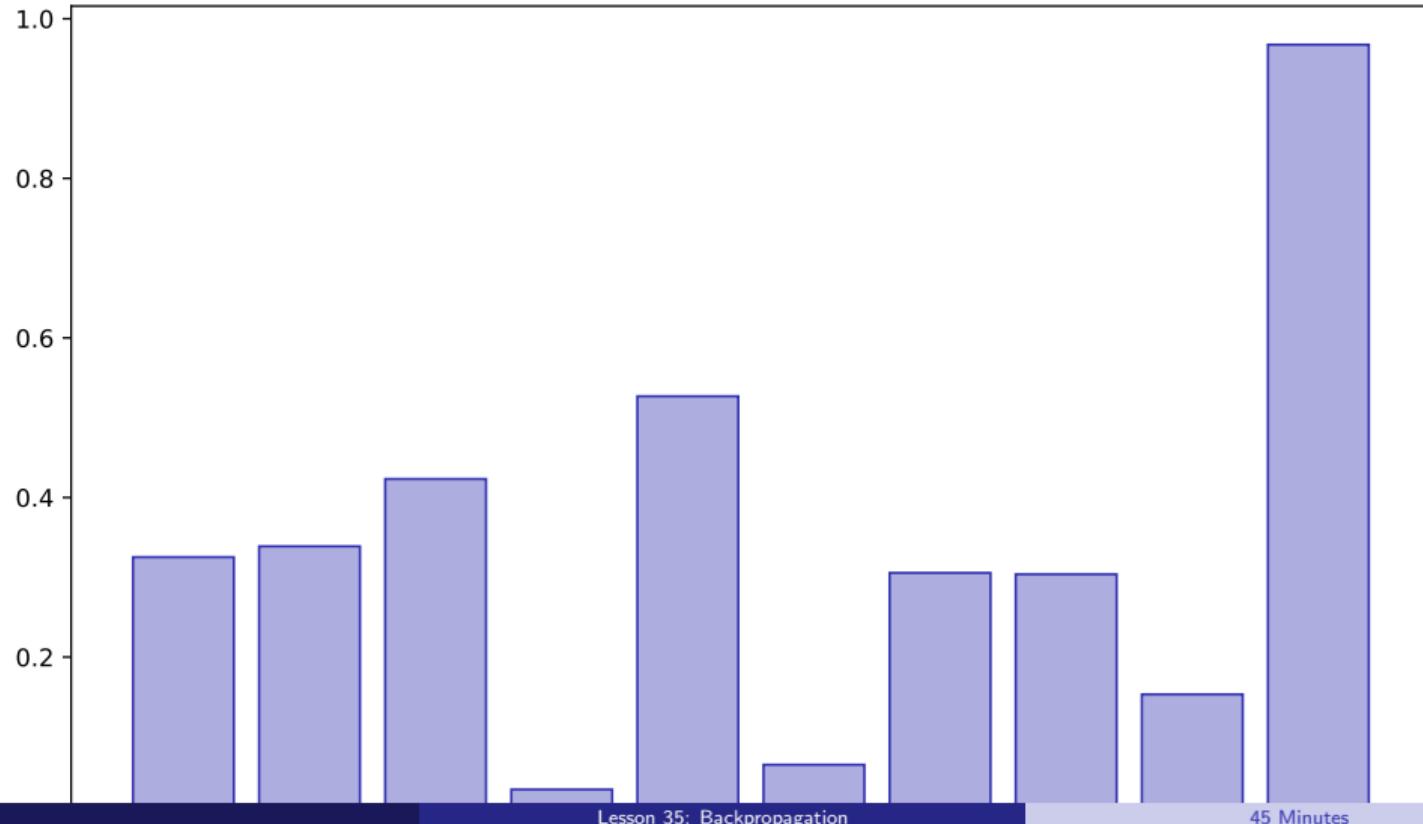
**After this lesson, you will be able to:**

- Understand gradient descent
- Interpret loss curves
- Configure learning rate
- Monitor training progress

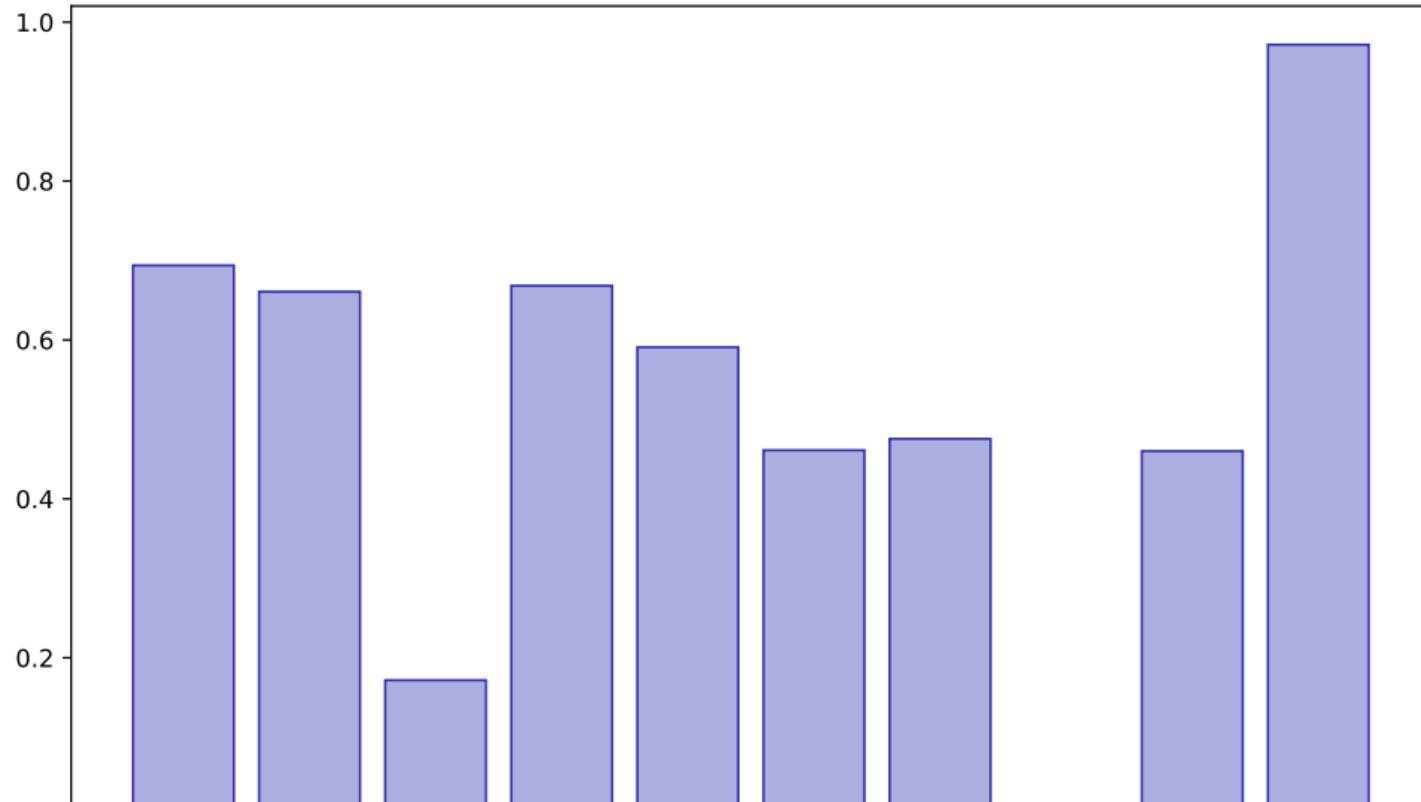
**Building towards your final project**

## Forward Pass

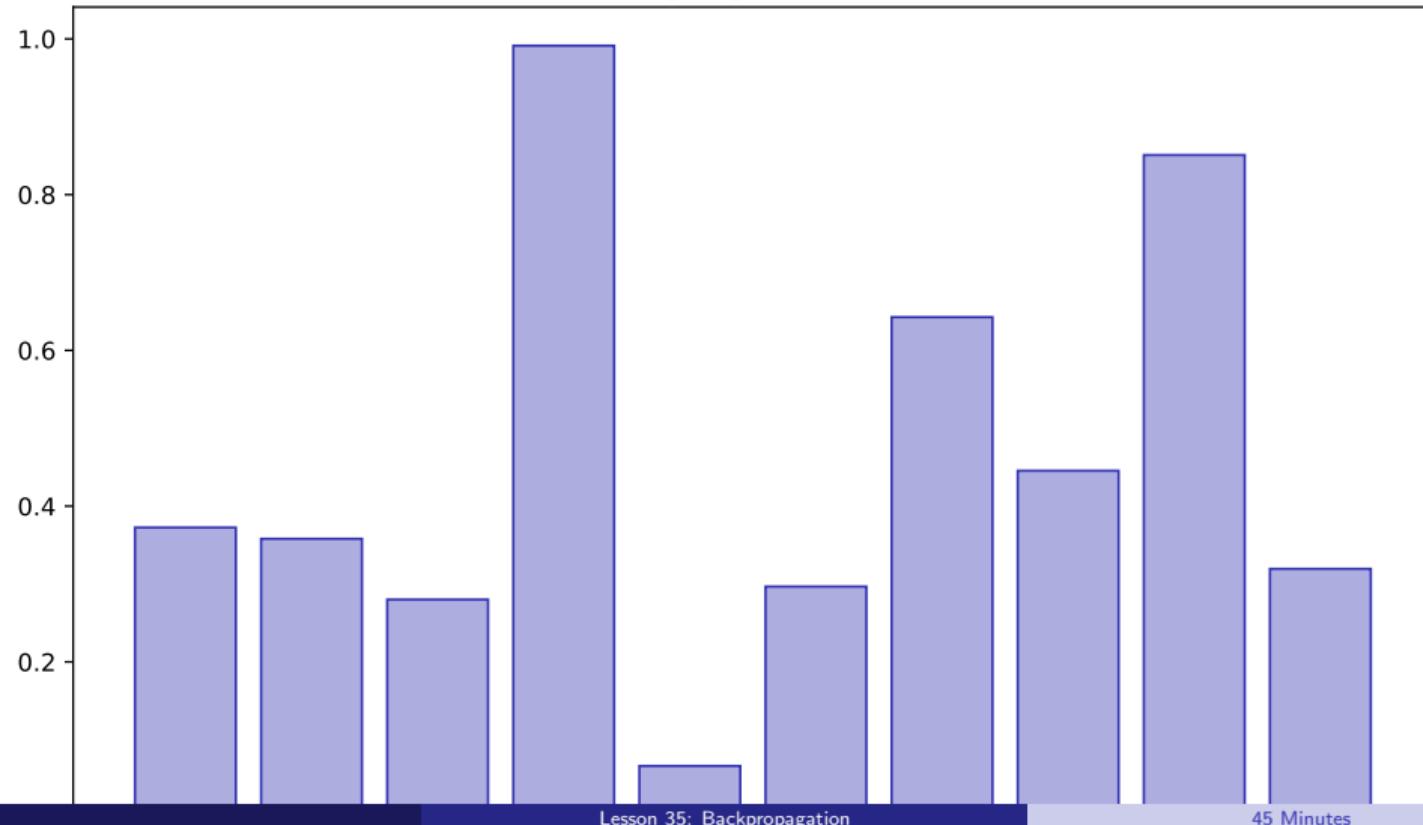
### Forward Pass



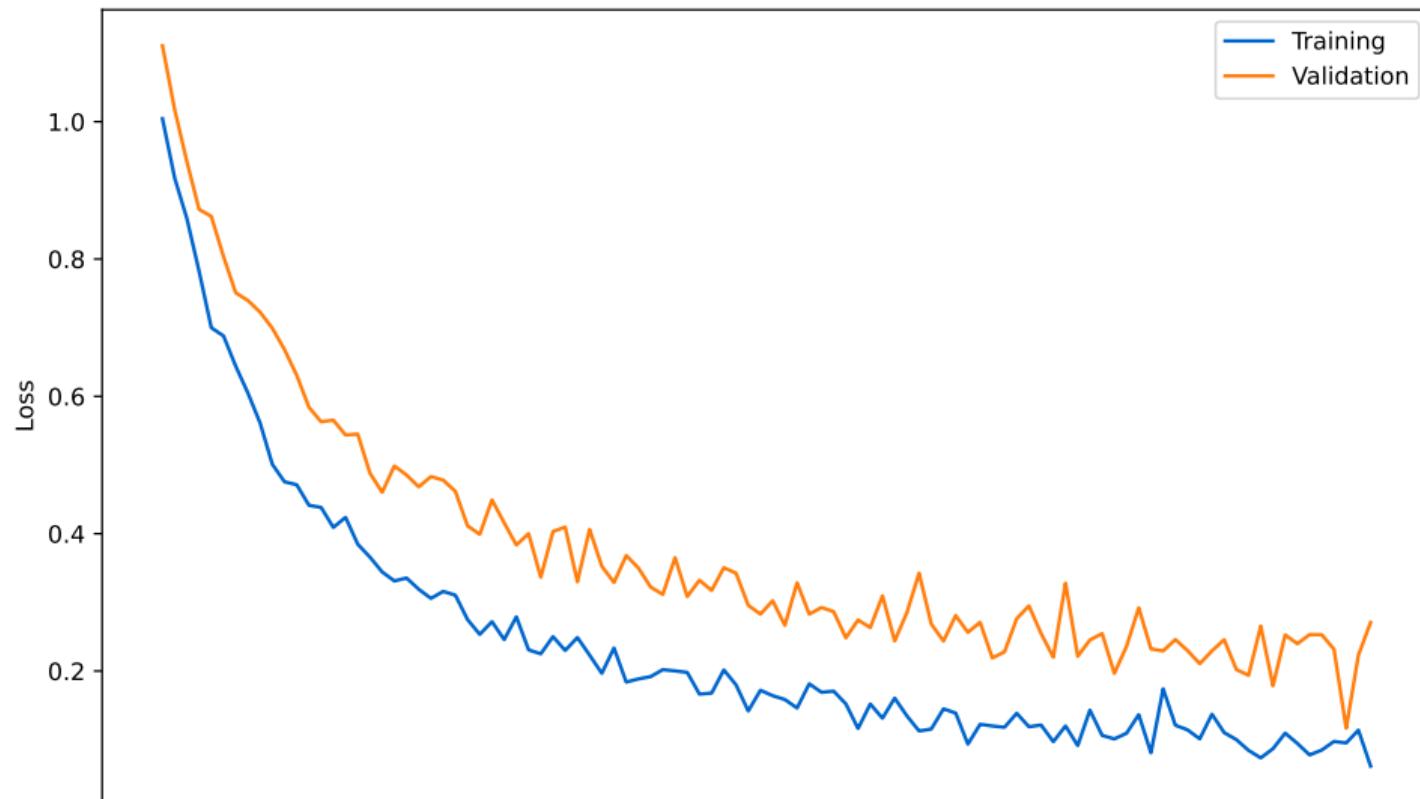
## Gradient Descent



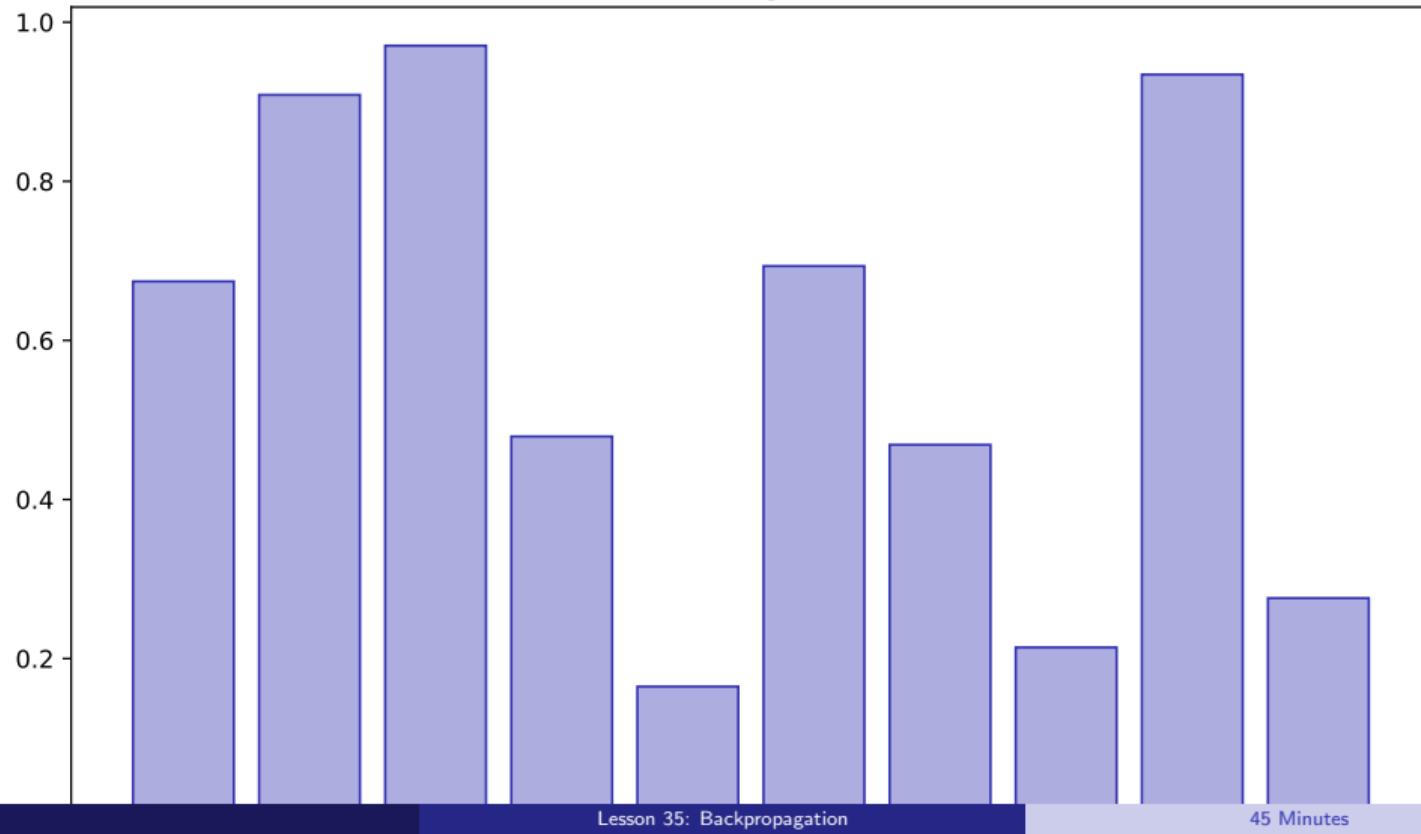
## Backprop Intuition



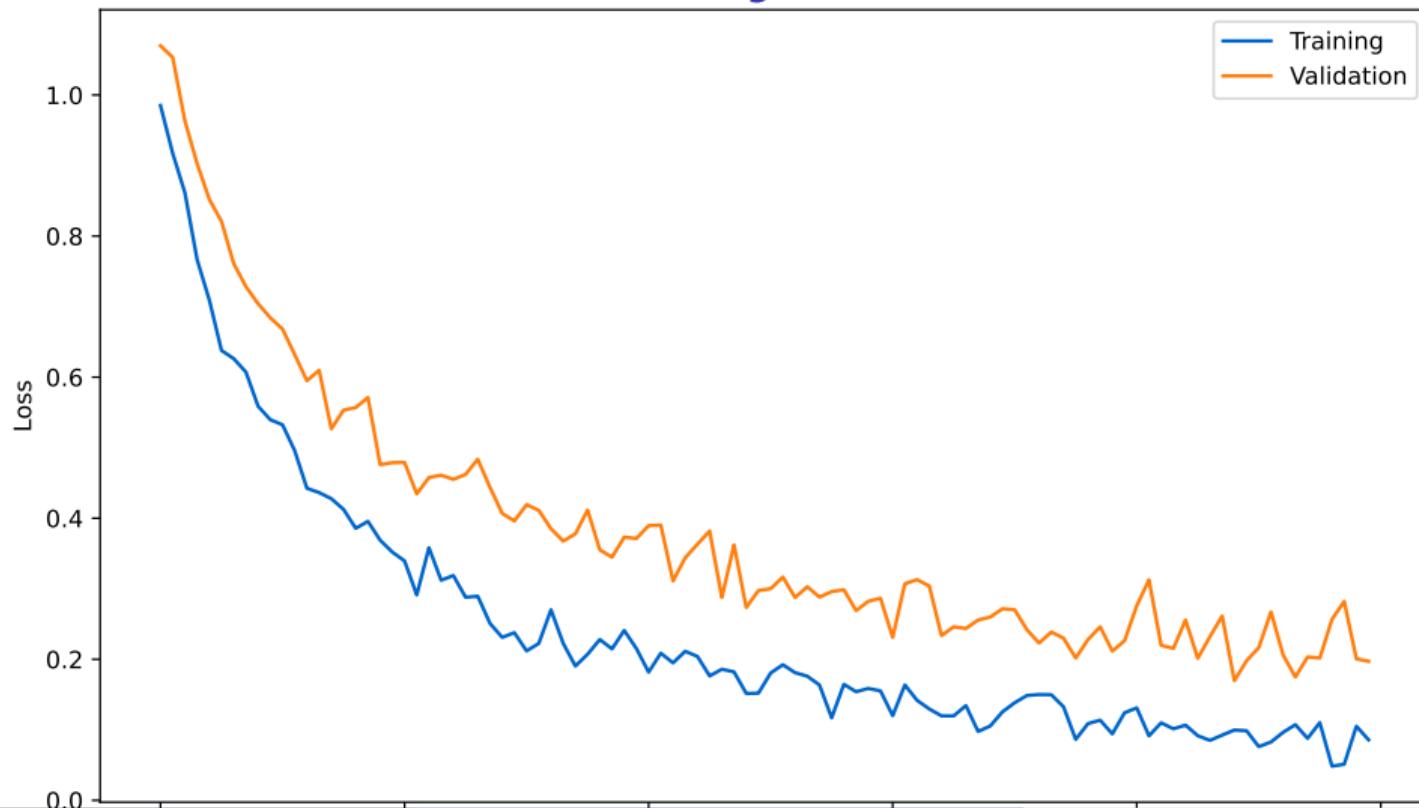
## Loss Functions



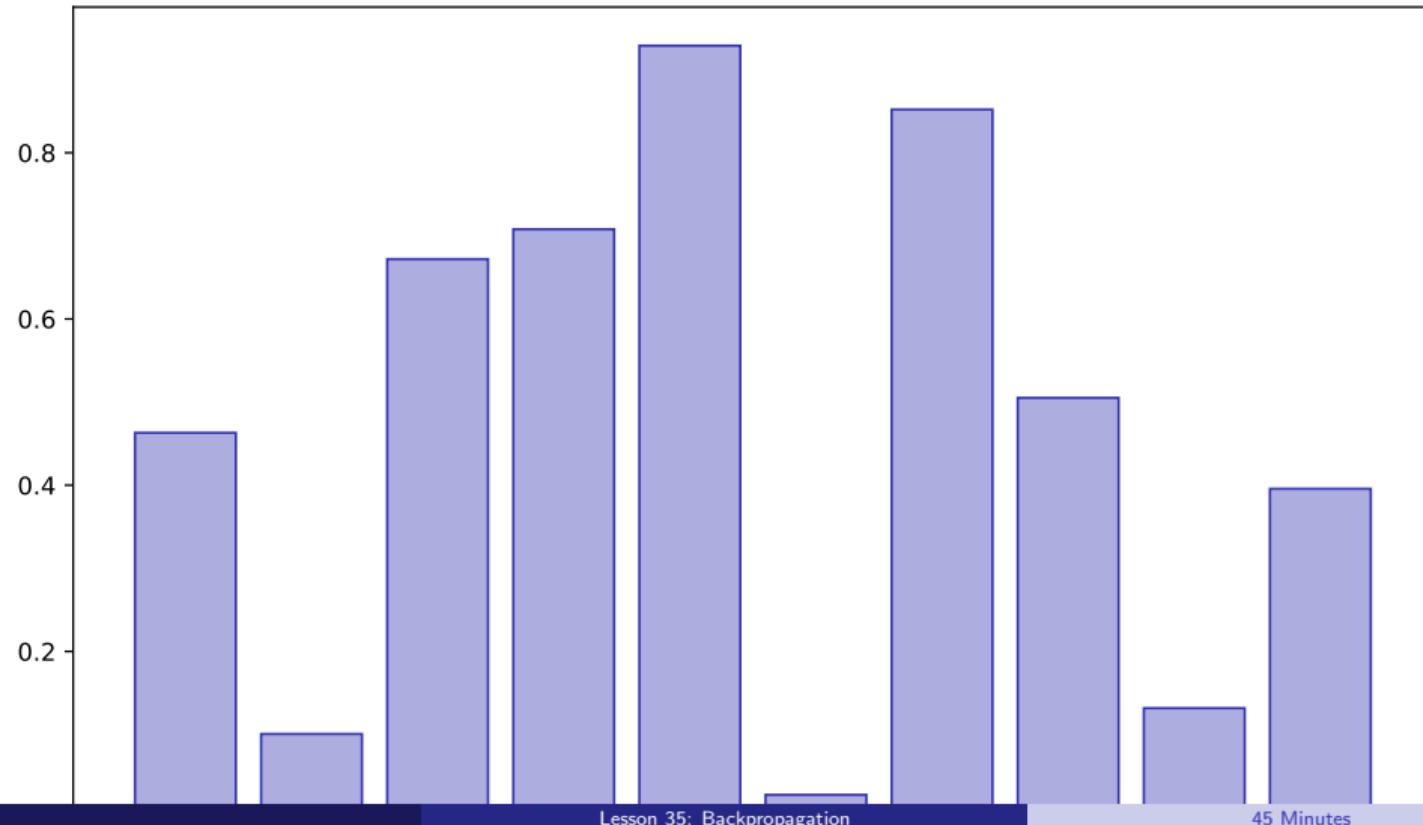
## Learning Rate



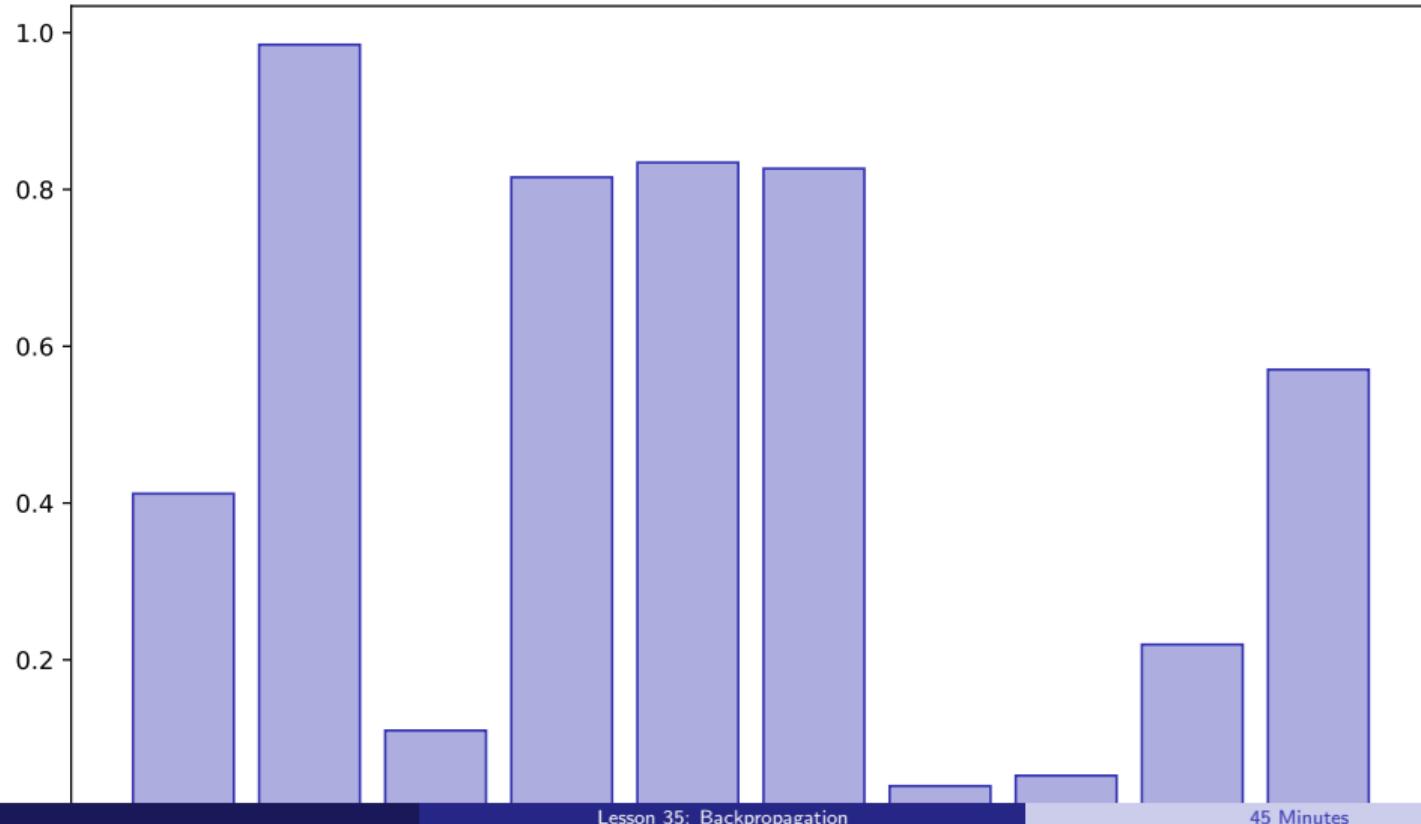
## Training Curves



## Batch Sizes



## Volatility Prediction



## Key Takeaways:

- Understand gradient descent
- Interpret loss curves
- Configure learning rate
- Monitor training progress

Apply these skills in your final project