

Setting up your Machine Learning Application

- ✓ **Video:** Train / Dev / Test sets
12 min
- ✓ **Video:** Bias / Variance
8 min
- ✓ **Video:** Basic Recipe for Machine Learning
6 min

Connect with your Mentors and Fellow Learners on Discourse!

- ✓ **Reading:** Connect with your Mentors and Fellow Learners on Discourse!
10 min

Regularizing your Neural Network

- ✓ **Reading:** Clarification about Upcoming Regularization Video
1 min
- ✓ **Video:** Regularization
9 min
- ✓ **Video:** Why Regularization Reduces Overfitting?
7 min
- ✓ **Video:** Dropout Regularization
9 min
- 📖 **Reading:** Clarification about Upcoming Understanding Dropout Video
1 min
- ▶ **Video:** Understanding Dropout
7 min
- ▶ **Video:** Other Regularization Methods
8 min

Setting Up your Optimization Problem

- ▶ **Video:** Normalizing Inputs
5 min
- ▶ **Video:** Vanishing / Exploding Gradients
6 min
- ▶ **Video:** Weight Initialization for Deep Networks
6 min
- ▶ **Video:** Numerical Approximation of Gradients
6 min
- ▶ **Video:** Gradient Checking
6 min
- ▶ **Video:** Gradient Checking Implementation Notes
5 min

Lecture Notes (Optional)

Quiz

Programming Assignments

Heroes of Deep Learning (Optional)



Clarification about Upcoming Understanding Dropout Video

Please note that in the next video from around 2:40 - 2:50, the dimension of $w^{[1]}$ should be 7x3 instead of 3x7, and $w^{[3]}$ should be 3x7 instead of 7x3.

In general, the number of neurons in the previous layer gives us the number of columns of the weight matrix, and the number of neurons in the current layer gives us the number of rows in the weight matrix.

Mark as completed

