Enhancing Vision with Convolutional Neural Networks

- **Video:** A conversation with Andrew Ng — 1 min
- **Video:** What are convolutions and pooling? — 2 min
- **Reading:** Coding convolutions and pooling layers — 10 min
- **Video:** Implementing convolutional layers — 1 min
- **Reading:** Learn more about convolutions — 10 min
- **Video:** Implementing pooling layers — 4 min
- **Reading:** Getting hands-on, your first ConvNet — 10 min
- **Video:** Improving the Fashion classifier with convolutions — 4 min
- **Reading:** Try it for yourself — 1h
- **Video:** Walking through convolutions — 3 min
- **Reading:** Experiment with filters and pools — 1h
- **Quiz:** Week 3 Quiz — 6 questions

Weekly Exercise - Improving DNN Performance using Convolutions

Optional: Ungraded Google Colaboratory environment

Congratulations! You passed!

TO PASS 80% or higher

Keep Learning

GRADE 100%

QUIZ

Week 3 Quiz

Week 3 Quiz

LATEST SUBMISSION GRADE

100%

Submit your assignment

DUE DATE Jul 20, 12:29 PM IST **ATTEMPTS** 3 every 8 hours

Try again

1. What is a Convolution? **1 / 1 point**

- (•) A technique to isolate features in images
- ( ) A technique to make images smaller
- ( ) A technique to filter out unwanted images
- ( ) A technique to make images bigger

Receive grade

TO PASS 80% or higher

Grade 100%

View Feedback

We keep your highest score

Correct

2. What is a Pooling? **1 / 1 point**

- ( ) A technique to isolate features in images
- (•) A technique to reduce the information in an image while maintaining features
- ( ) A technique to make images sharper
- ( ) A technique to combine pictures

Correct

3. How do Convolutions improve image recognition? **1 / 1 point**

- ( ) They make the image clearer
- ( ) They make processing of images faster
- ( ) They make the image smaller
- (•) They isolate features in images

Correct

4. After passing a 3x3 filter over a 28x28 image, how big will the output be? **1 / 1 point**

- (•) 26x26
- ( ) 25x25
- ( ) 31x31
- ( ) 28x28

Correct

5. After max pooling a 26x26 image with a 2x2 filter, how big will the output be? **1 / 1 point**

- ( ) 56x56
- (•) 13x13
- ( ) 28x28
- ( ) 26x26

Correct

6. Applying Convolutions on top of our Deep neural network will make training: **1 / 1 point**

- ( ) Slower
- (•) It depends on many factors. It might make your training faster or slower, and a poorly designed Convolutional layer may even be less efficient than a plain DNN!
- ( ) Stay the same
- ( ) Faster