Back

The basics of ConvNets

Quiz, 10 questions

**Congratulations! You passed!**

Next Item

Question 1

Correct

1 / 1 points

**1. Question 1**

What do you think applying this filter to a grayscale image will do?

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Question 2

Correct

1 / 1 points

**2. Question 2**

Suppose your input is a 300 by 300 color (RGB) image, and you are not using a convolutional network. If the first hidden layer has 100 neurons, each one fully connected to the input, how many parameters does this hidden layer have (including the bias parameters)?

Question 3

Correct

1 / 1 points

**3. Question 3**

Suppose your input is a 300 by 300 color (RGB) image, and you use a convolutional layer with 100 filters that are each 5x5. How many parameters does this hidden layer have (including the bias parameters)?

Question 4

Correct

1 / 1 points

**4. Question 4**

You have an input volume that is 63x63x16, and convolve it with 32 filters that are each 7x7, using a stride of 2 and no padding. What is the output volume?

Question 5

Correct

1 / 1 points

**5. Question 5**

You have an input volume that is 15x15x8, and pad it using “pad=2.” What is the dimension of the resulting volume (after padding)?

Question 6

Correct

1 / 1 points

**6. Question 6**

You have an input volume that is 63x63x16, and convolve it with 32 filters that are each 7x7, and stride of 1. You want to use a “same” convolution. What is the padding?

Question 7

Correct

1 / 1 points

**7. Question 7**

You have an input volume that is 32x32x16, and apply max pooling with a stride of 2 and a filter size of 2. What is the output volume?

Question 8

Correct

1 / 1 points

**8. Question 8**

Because pooling layers do not have parameters, they do not affect the backpropagation (derivatives) calculation.

Question 9

Correct

1 / 1 points

**9. Question 9**

In lecture we talked about “parameter sharing” as a benefit of using convolutional networks. Which of the following statements about parameter sharing in ConvNets are true? (Check all that apply.)

Question 10

Correct

1 / 1 points

**10. Question 10**

In lecture we talked about “sparsity of connections” as a benefit of using convolutional layers. What does this mean?