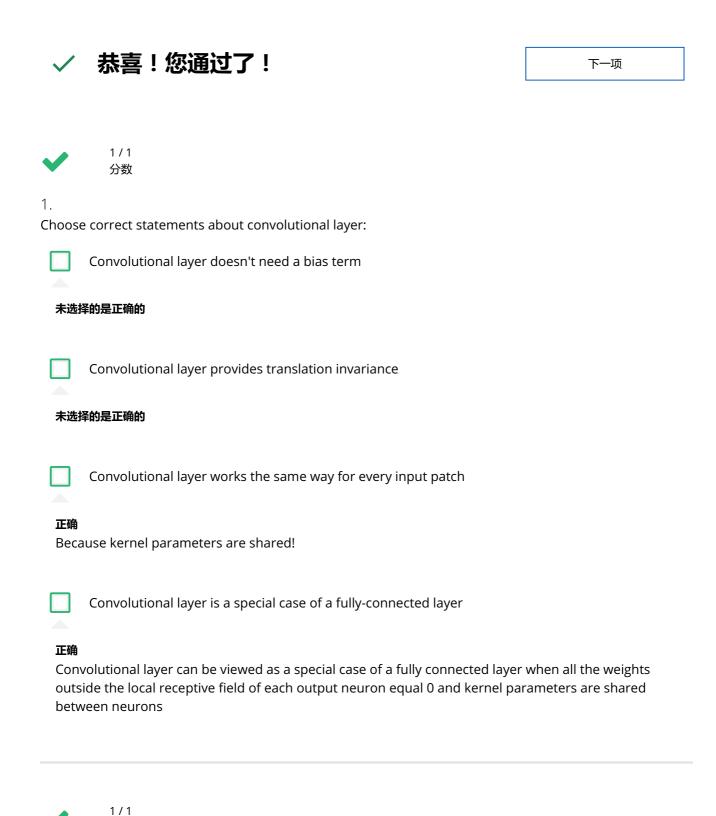
onvolutions and pooling

5/5 分 (100.00%)

验,5个问题



Pooling layer can reduce spatial dimensions (width and height of the input volume)

https://www.coursera.org/learn/intro-to-deep-learning/exam/gy9pN/convolutions-and-pooling

Choose correct statements about pooling layer:

分数

2.



5/5 分 (100.00%)

	Pooling layer is strictly differentiable
未选择的是正确的	
	Pooling layer reduces the number of convolutional filters
未选择	圣的是正确的
	Pooling layer provides translation invariance
正确 Rem	ember the slash classifier example? Taking maximum gave us translation invariance.
~	1 / 1 分数
3. Back-propagation for convolutional layer first calculates the gradients as if the kernel parameters were not shared and then	
	Takes a mean of the gradients for each shared parameter
	Takes a maximum gradient for each shared parameter
0	Takes a sum of gradients for each shared parameter
正确 That's it!	
	Takes a minimum gradient for each shared parameter



1/1 分数

4

Suppose you have a 10x10x3 colour image input and you want to stack two convolutional layers with kernel size 3x3 with 10 and 20 filters respectively. How many parameters do you have to train for these two layers? Don't forget bias terms!

onvolutions and pooling ^{验,5个问题} 00

5/5 分 (100.00%)

正确回答

(3*3*3+1)*10 + (3*3*10+1)*20

您的答案"(3*3*3+1)*10 + (3*3*10+1)*20"与授课老师给出的答案"(3*3*3+1)*10 + (3*3*10+1)*20"相同。



1 / 1 分数

5

What receptive field do we have after stacking n convolutional layers with kernel size $k \times k$ and stride 1? Layers numeration starts with 1. The resulting receptive field will be a square, input its side as an answer.

预览

$$k + (k-1)\left(n-1\right)$$

$$(k-1)*(n-1)+k$$

正确回答

您的答案"(k-1)*(n-1)+k"与授课老师给出的答案"(k-1)*(n-1)+k"相同。

