

Assignment-7 (Quiz) - Results



Attempt 1 of 2

Written Feb 28, 2024 1:29 PM - Feb 28, 2024 1:39 PM

Attempt Score **1.6 / 2 - 80 %**

Overall Grade (Highest Attempt) **1.6 / 2 - 80 %**

Question 1

You have an input volume with shape $32 \times 32 \times 16$, and apply max pooling with a 2×2 filter using a stride of 2. What will be the shape of the output volume?

- ☒ $16 \times 16 \times 16$
- ☐ $16 \times 16 \times 8$
- ☐ $15 \times 15 \times 16$
- ☐ $32 \times 32 \times 8$

Question 2

What would you set the padding of a 2D convolution filter to be (as a function of the filter width f) to ensure that the output has the same dimension (width and height) as the input? Assume that the stride is 1 and that the filter shape is $f \times f$.

- ☐ $f-1$
- ☐ $(f+1)/2$
- ☒ $(f-1)/2$
- ☐ $2(f+1)$

Question 3

Suppose you have an input volume of shape $10 \times 10 \times 3$ for which you use a 2-layer CNN with the hidden layer corresponding to three 2×2 filters with unit zero padding and unit stride. How many parameters need to be trained for the hidden layer?

- ☒ 39
- ☐ 36

☐ 15☐ 24**Question 4**

You have an input of shape 32×32 . What will be the shape of the resulting output after convolving with a single 5×5 filter with unit zero padding and unit stride?

☐ 29×29 ☐ 32×32 ☐ 31×31 ☒ 30×30 **Question 5**

Fill in the missing entry in the output of the convolution operation below assuming no zero padding and unit stride:

10	10	10	0	0	0
10	10	10	0	0	0
10	10	10	0	0	0
10	10	10	0	0	0
10	10	10	0	0	0
10	10	10	0	0	0

 *

1	0	-1
1	0	-1
1	0	-1

 =

0	?	30	0
0	30	30	0
0	30	30	0
0	30	30	0

☐ 10☐ -1☐ 0☒ 30

Done