Assignment 6

The due date for submitting this assignment has passed. Due on 2018-03-07, 23:59 IST.

Submitted assignment

1) What should be the response dimension if an image of dimension $3 \times 25 \times 25$ is convoloved with a filter of dimension $3 \times 5 \times 5$?

- $1 \times 21 \times 21$
- $3 \times 25 \times 25$
- $1 \times 25 \times 25$
- $25 \times 25 \times 1$

No, the answer is incorrect.
Score: 0
Accepted Answers:
$1 \times 21 \times 21$

2) What should be the response dimension if an image of dimension $3 \times 25 \times 25$ is padded with width of 2 and convoloved with a filter of dimension $3 \times 5 \times 5$?

- $1 \times 21 \times 21$
- $3 \times 25 \times 25$
- $1 \times 25 \times 25$
- $25 \times 25 \times 1$

No, the answer is incorrect.
Score: 0
Accepted Answers:
$1 \times 25 \times 25$

3) What should be the response dimension if an image of dimension $3 \times 25 \times 25$ is convoloved with a filter of dimension $3 \times 5 \times 5$ and considered stride as 2?

- $1 \times 11 \times 11$
- $3 \times 12.5 \times 12.5$
- $1 \times 12.5 \times 12.5$
4) Including maxpooling equips the model to be invariant to ____________ with in the limits of maxpooling kernel

- Scale
- Translation
- Rotation
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
Translation

5) Which of the following filter is functionally equivalent to maxpooling operation

- Erosion
- Dilation
- Rank Filter
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
Dilation

6) If the encoder part of an autoencoder with 784 input neurons and 100 hidden neurons can be rewrapped as a convolutional filters each with $a$, $b$ and $c$ as input channels, filter height and filter width. What are the values of $n$, $a$, $b$ and $c$?

Hint: Autoencoder is trained on gray scale image patches of size $28 \times 28$

- $1, 100, 28$ and $28$
- $100, 1, 28$ and $28$
- $28, 100, 1$ and $28$
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
$100, 1, 28$ and $28$

7) Which operation needs max pooling indices or switch variables?

- Pooling
- Unpooling
- Activation
- Deconvolution

No, the answer is incorrect.
Score: 0
Accepted Answers:
Unpooling
8) Which operation needs learnable weights?

- Pooling
- Unpooling
- Activation
- Deconvolution

No, the answer is incorrect.
Score: 0
Accepted Answers: Deconvolution

9) What of the following activation function has no gradient for negative responses

- Sigmoid
- Tanh
- ReLU
- Absolute

No, the answer is incorrect.
Score: 0
Accepted Answers: ReLU

10) LeNet is designed for classification of

- Alphabets
- Numbers or digits
- Images
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers: Numbers or digits