Quiz-3 19201049

Answer to the Ques. no. 1

input = 256×256

filters = 8×8

Stride = 2

Padding = 0

max pool size = 2×2

* 1st set of convolution & max pooling

Width = $[(W + 2P - F)/S] + 1$

$= [(256 + (2 \times 0) - 8)/2] + 1$

$= 125$

Height = $[(H) + 2P - F)/S] + 1$

$= [(256 + (2 \times 0) - 8)/2] + 1$

$= 125$

tensor (125×125)

after convolution, feature map value = 6×125×125

max pooling = 6×62×62 ← $\frac{125}{2} = 62.5 \sim 62$

* 2nd set of convolution & max pooling

Width = [(W+2P-F)/S]+1

= [(62+0-8)/2] +1

= 28

Height = [(H+2P-F)/S] +1

= [62+0-8/2] +1

= 28

tensor (28x28)

after convolution, 6x28x28

max pooling = **6x14x14** ← $\frac{28}{2} = 14$

3rd set

Width = [(14+0-8)/2] +1

= 4

Height - [(14+0-8)/2]+1

= 4

tensor (4x4)

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After convolution, 6X4X4

max pooling = 6X2X2 ← 4/2 = 2

number of flattering layer nodes = 6X2X2
= 24

by changing the amount of filters value can be increased.