



**deeplearning.ai**

# Case Studies

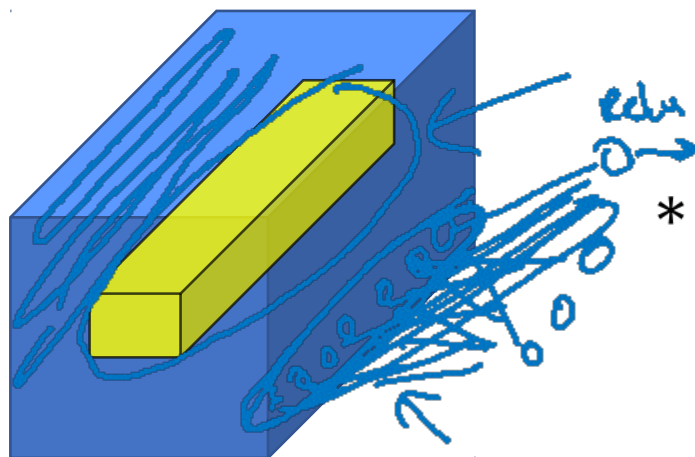
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Network  
Network  
Network and 1x1 convolutions  
convolutions

# Why does a 1x1 convolution do?

1	2	3	6	5	8
3	5	5	1	3	4
2	1	3	4	9	3
4	7	8	5	7	9
1	5	3	7	4	8
5	4	9	8	3	5

$6 \times 6 \times 1$



$6 \times 6 \times 32$

\*

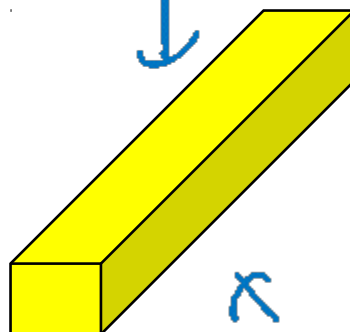
2

=



32

→ # filters.  
 $n_c^{[L+1]}$

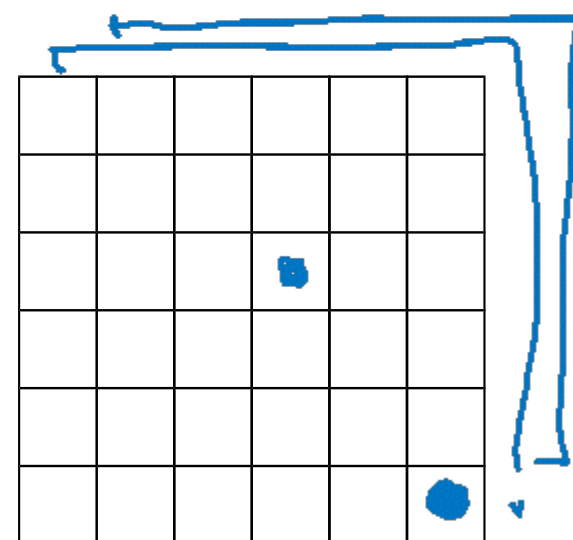


$1 \times 1 \times 32$

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ReLU  
Network in  
Network

2	4	6	...		



$6 \times 6 \times \text{\# filters}$

# Using 1x1 convolutions

