

DEEP LEARNING EX 9

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- 1) When we changed the number of filters from 3 to 16, accuracy raised to %37. Therefore we can say that more filters perform better.
- 2) When we changed the Kernel size to 3x3 from 5x5 we observed that the accuracy stays the same.
Using smaller filters helps to:
 - Reduce the number of parameters.
 - Improve the ability to capture local and hierarchical features.
 - Make the network more computationally efficient.
- 3) When we applied batchnorm, network performed much better. This is because batch normalization introduces a form of regularization, smooth gradient flow and stabilization, which yields in faster convergence and better generalization.
- 4) Because of the global average pooling applied just before the final fully connected layer, the network can handle varying size of the inputs.