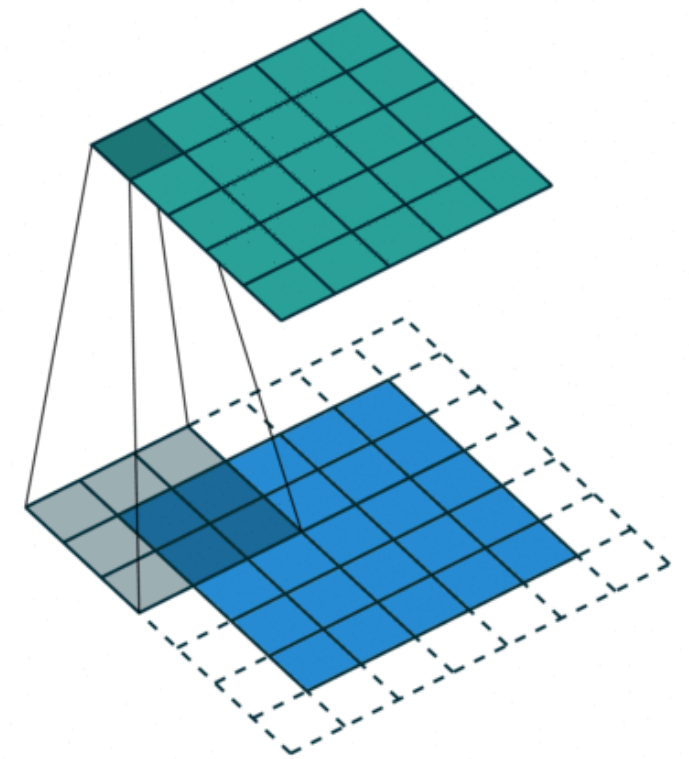
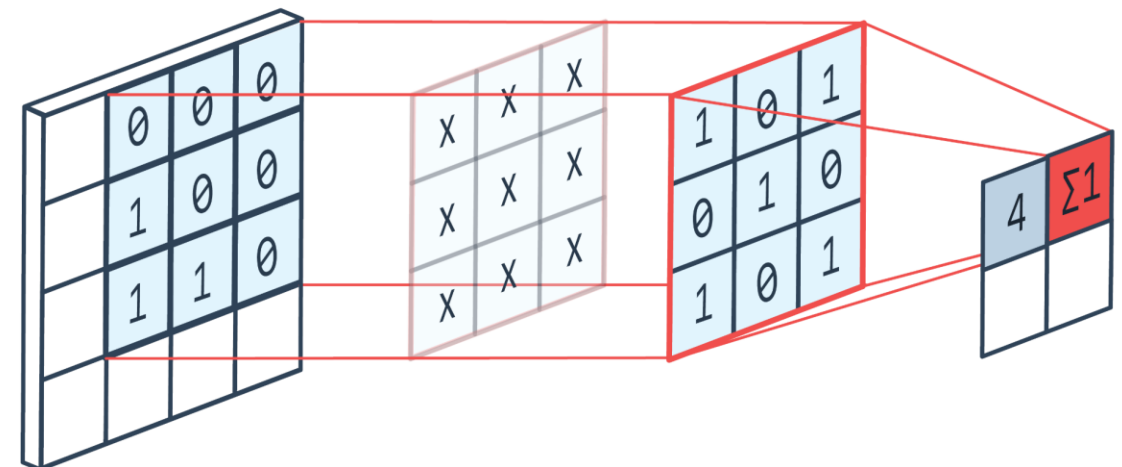
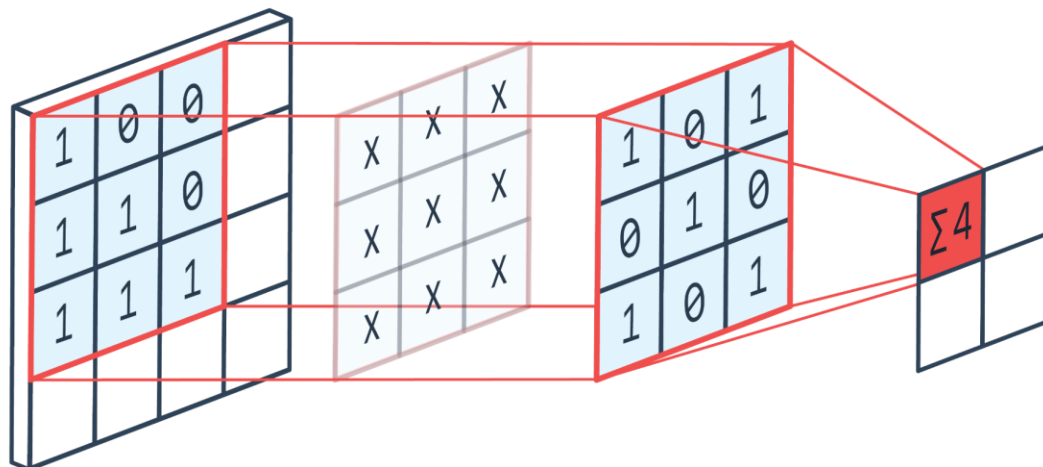


SIECI KONWOLUCYJNE CNN

CONVOLUTIONAL LAYER – GRAYSCALE IMAGES

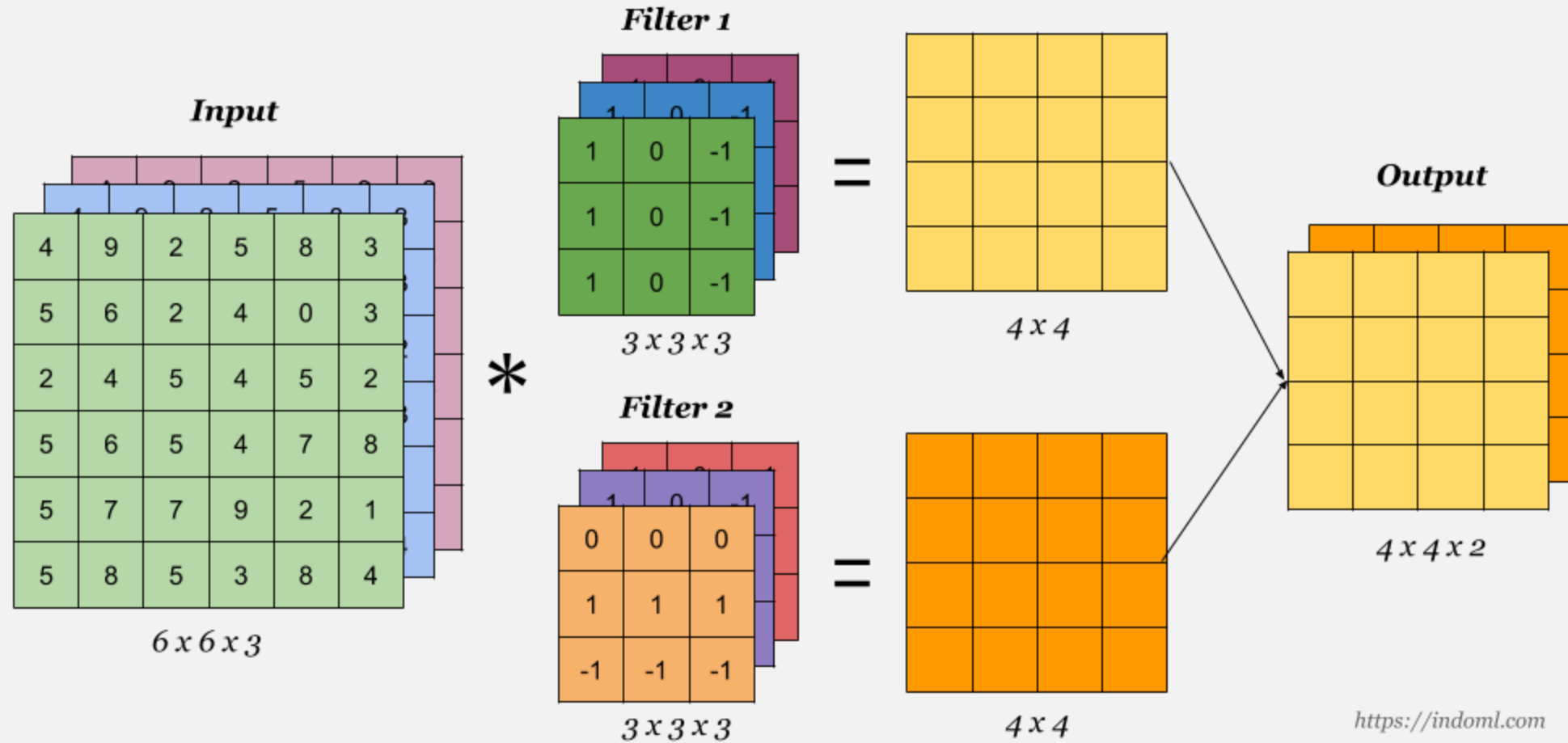


<https://towardsdatascience.com/intuitively-understanding-convolutions-for-deep-learning-1f6f42faee1>

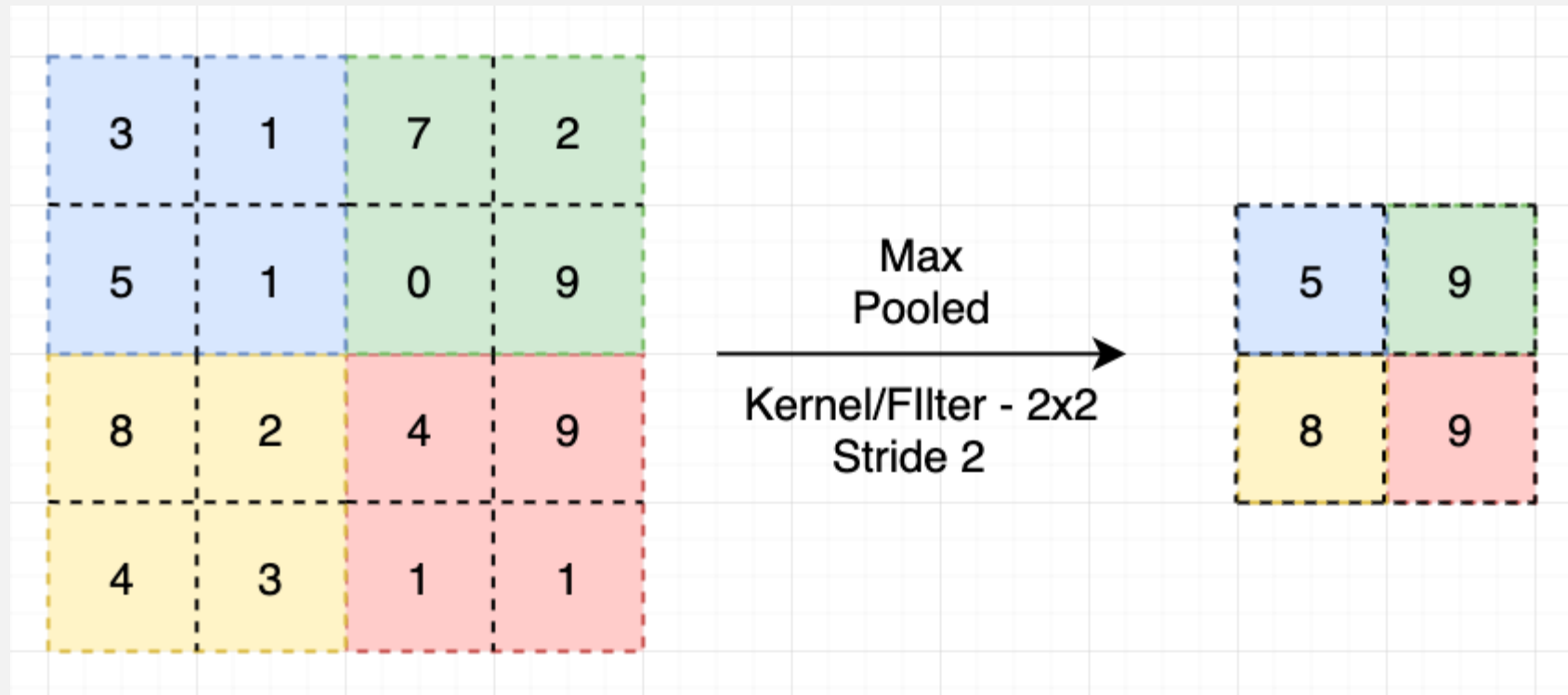


<https://peltarion.com/knowledge-center/documentation/modeling-view/build-an-ai-model/blocks/2d-convolution-block>

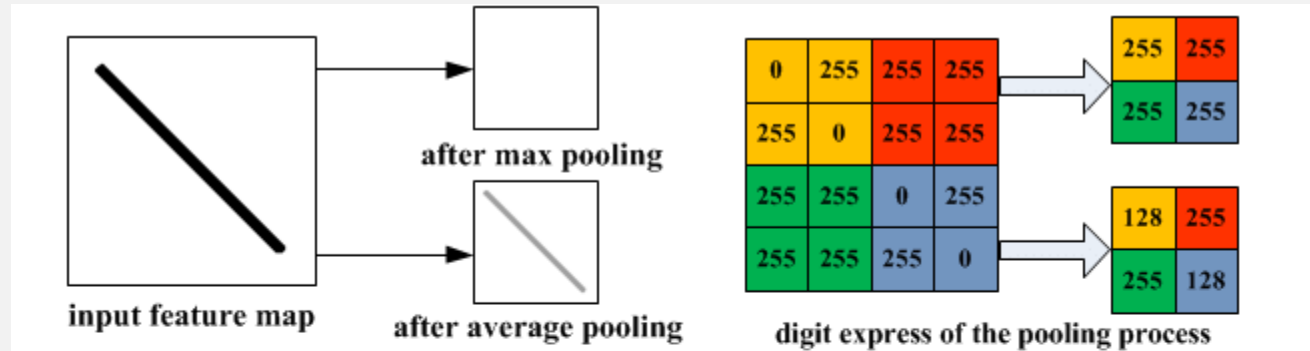
CNN FOR RGB



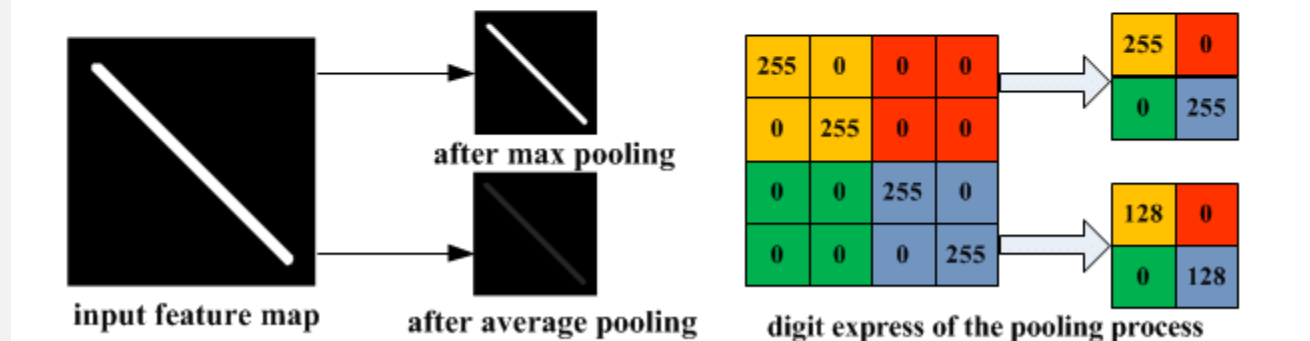
POOLING



POOLING DRAWBACK



(a) Illustration of max pooling drawback

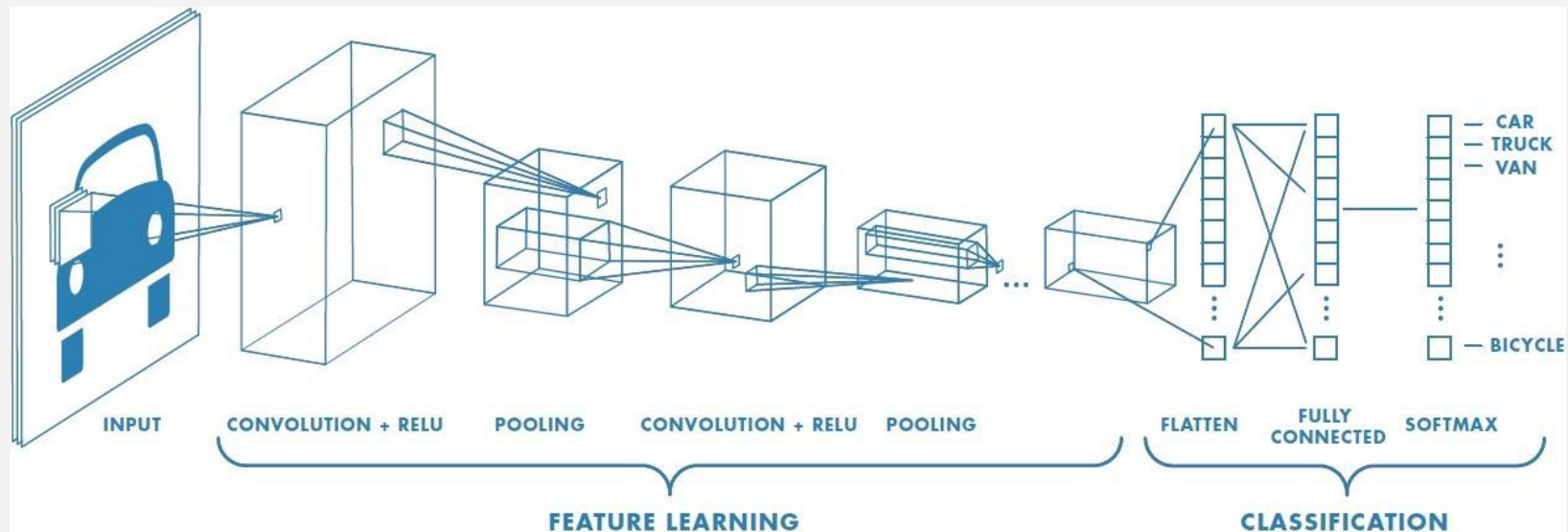


(b) Illustration of average pooling drawback

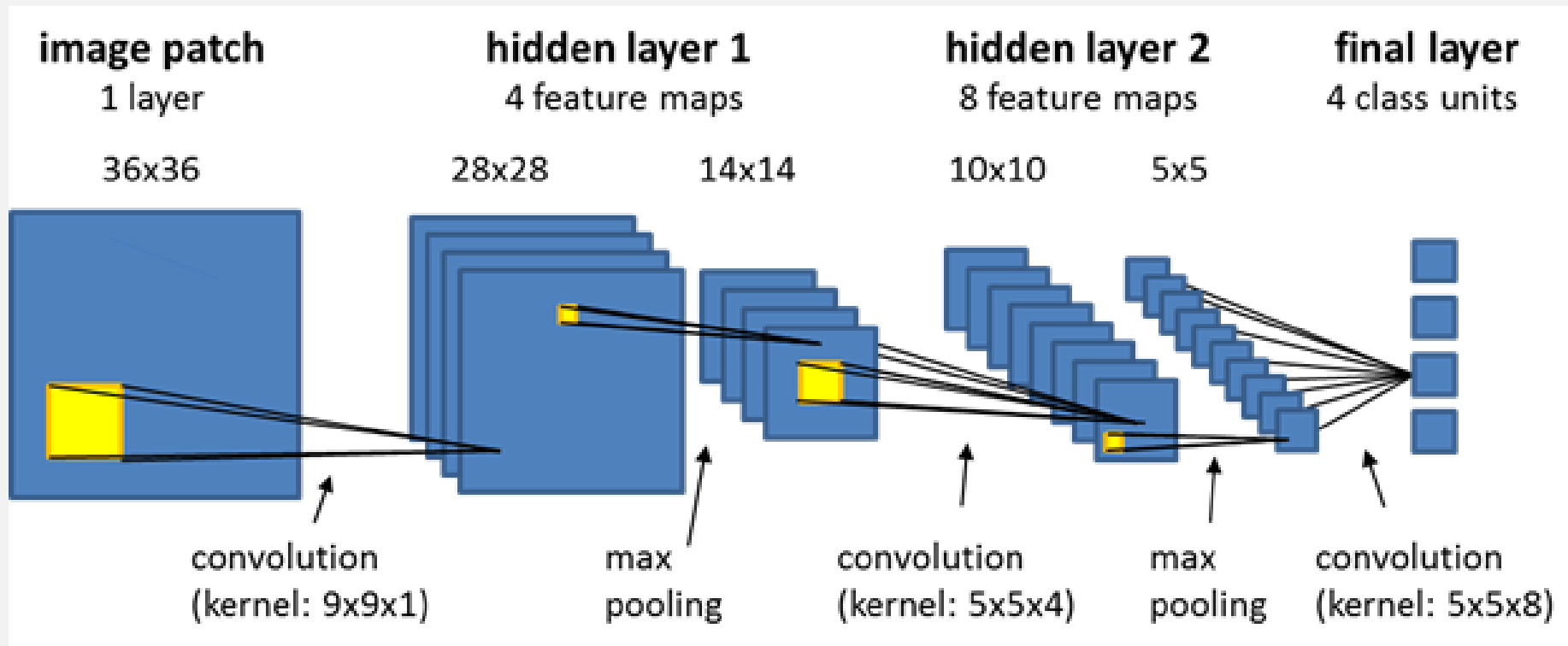
BATCH NORMALIZATION

- <https://learnopencv.com/batch-normalization-in-deep-networks/>

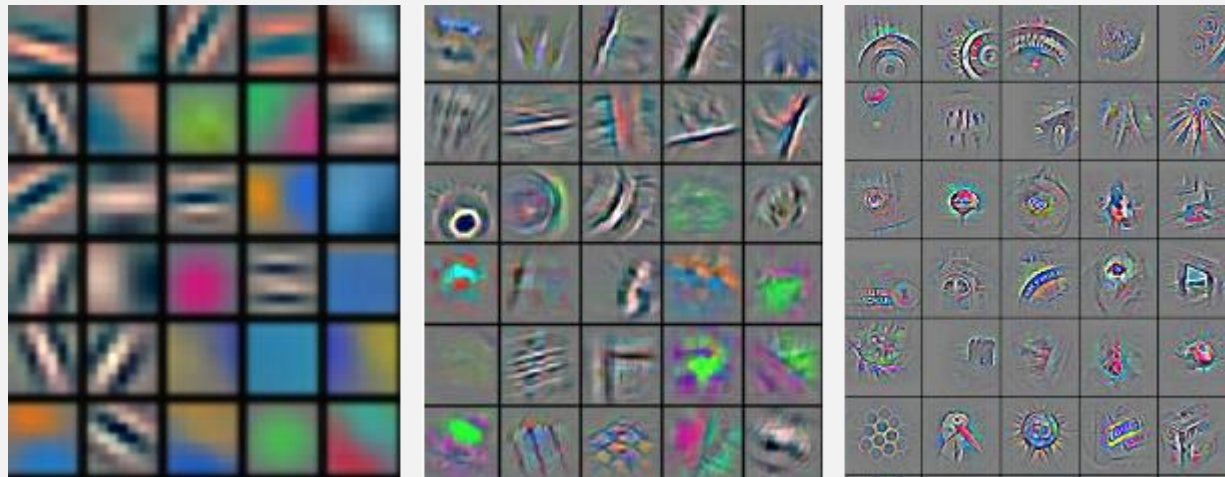
CONVOLUTIONAL NEURAL NETWORK



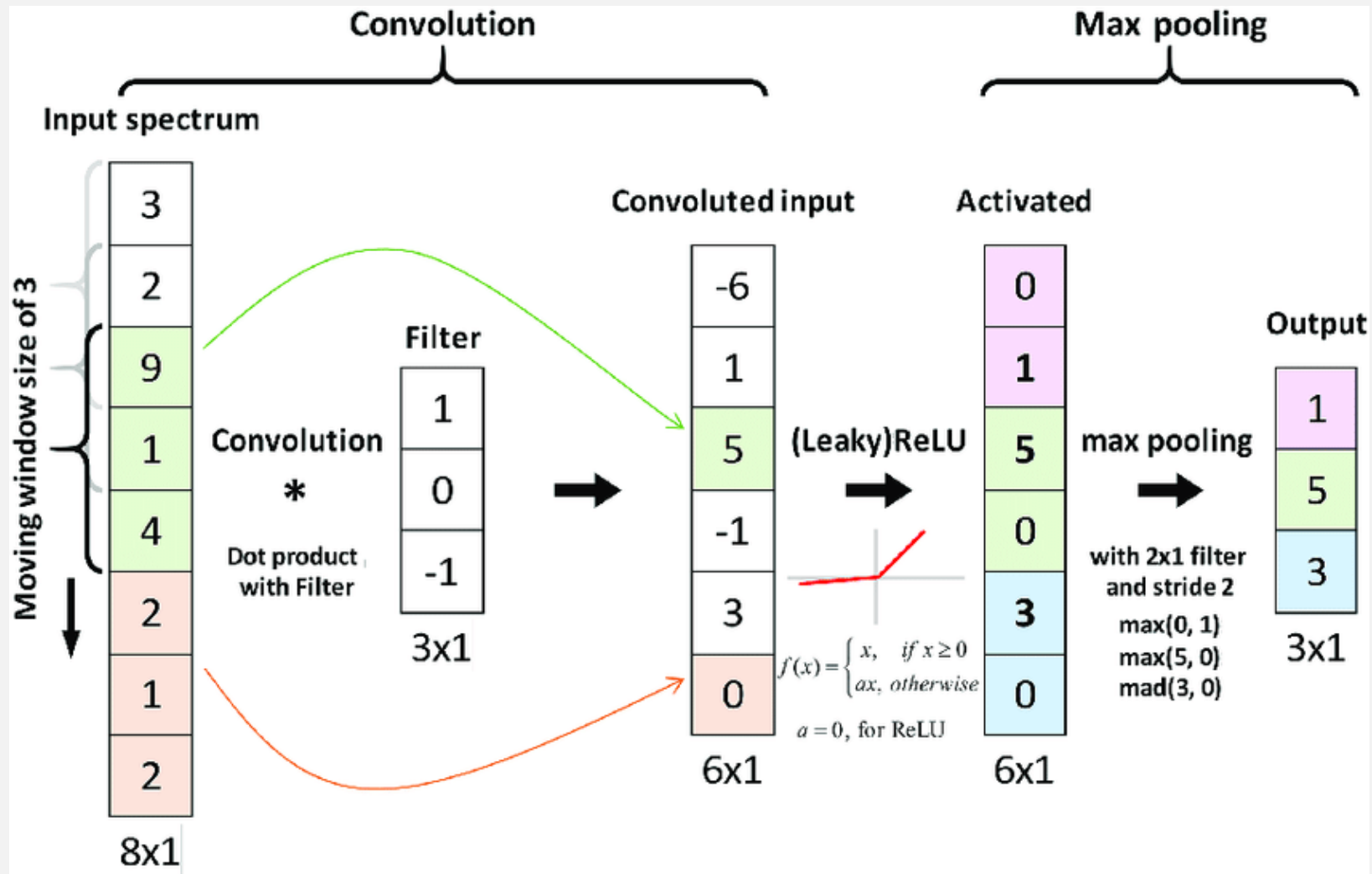
CNN



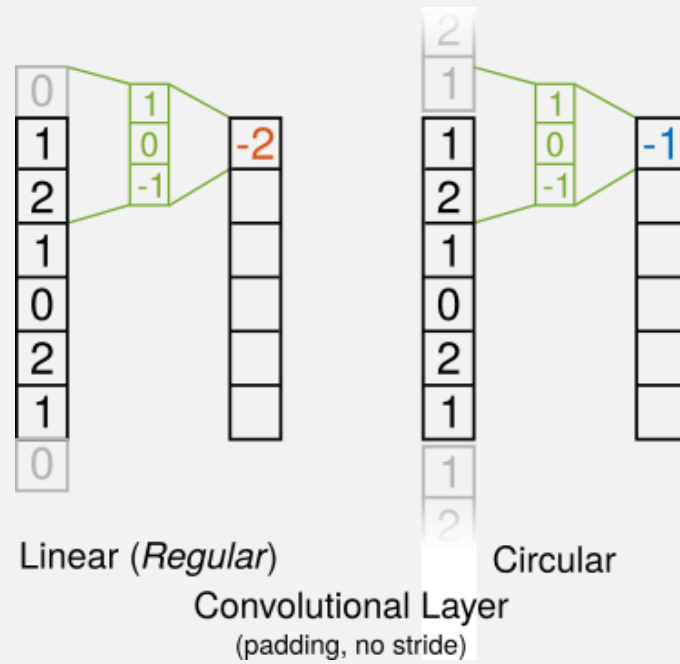
GABOR FILTERS



CONVOLUTION 1D



PADDING



CNN IN KERAS

- <https://github.com/fchollet/deep-learning-with-python-notebooks/blob/master/5.1-introduction-to-convnets.ipynb>