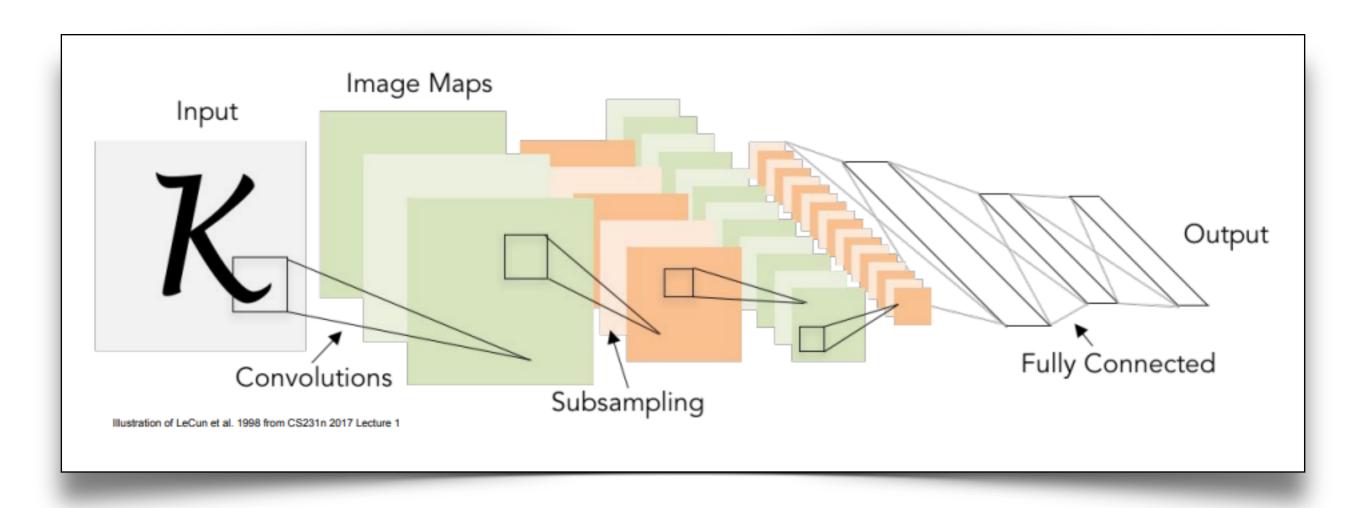
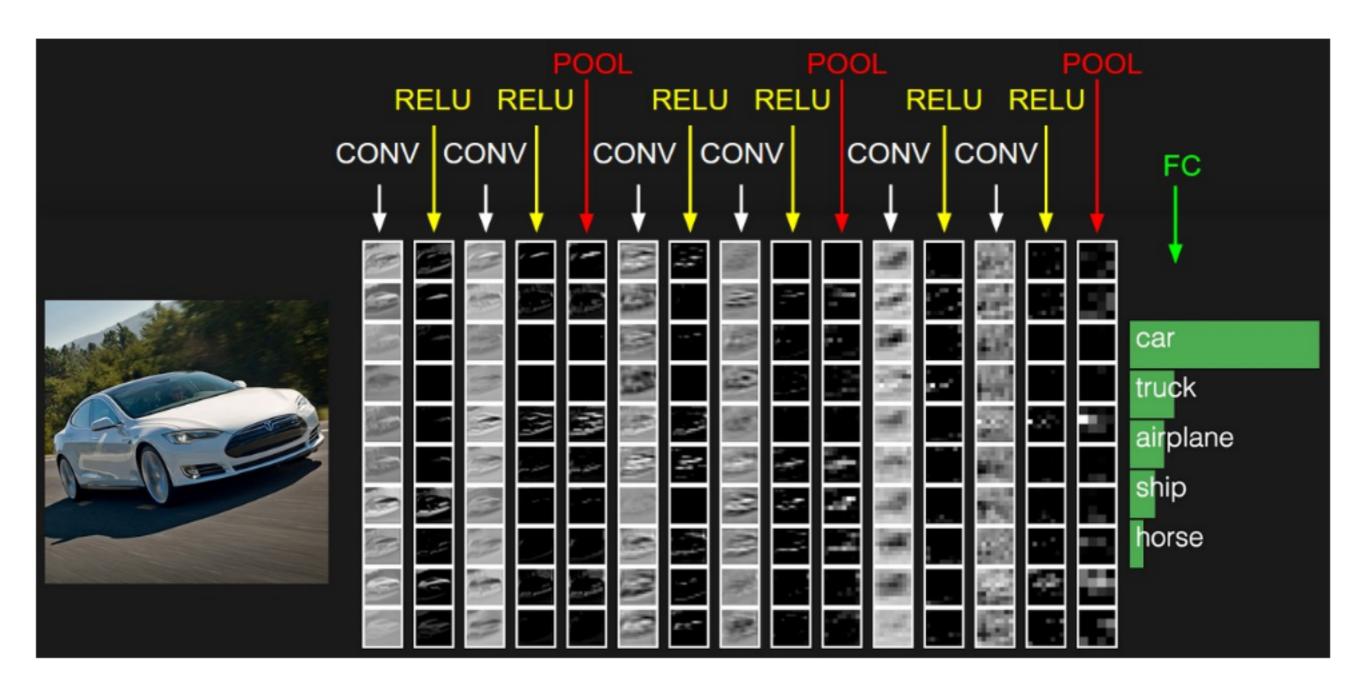
5. Convolutional Neural Networks (CNN)



李飛飛教授: Convolutional Neural Networks (教學投影片) (http://cs231n.stanford.edu/slides/2017/cs231n_2017_lecture5.pdf)

(cont'd)

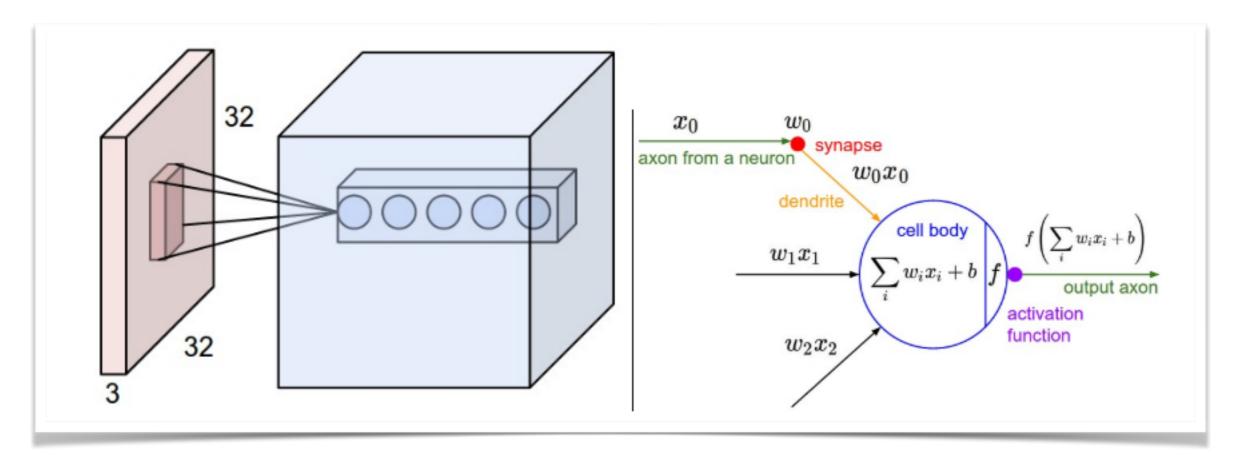


李飛飛教授: Convolutional Neural Networks (CNNs / ConvNets) (https://cs231n.github.io/convolutional-networks/)

(cont'd)

Convolution Layer

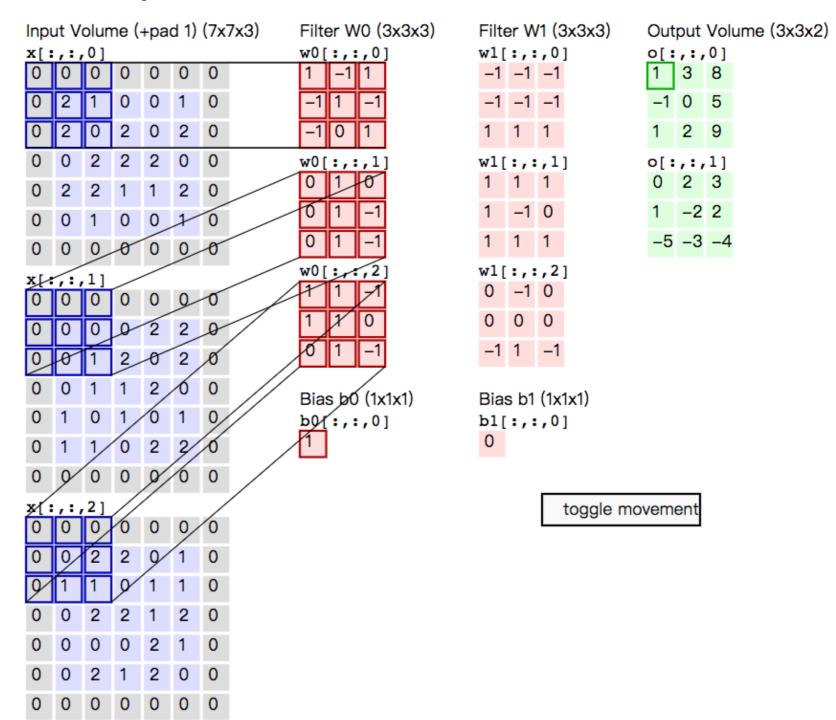
2D Convolution — with filters => Local Patterns



李飛飛教授: Convolutional Neural Networks (CNNs / ConvNets) (https://cs231n.github.io/convolutional-networks/)

(cont'd)

Convolution



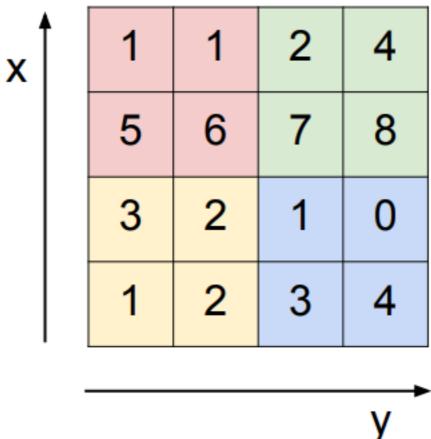
李飛飛教授: Convolutional Neural Networks (CNNs / ConvNets) (https://cs231n.github.io/convolutional-networks/)

(cont'd)

Pooling Layer

Max_Pooling

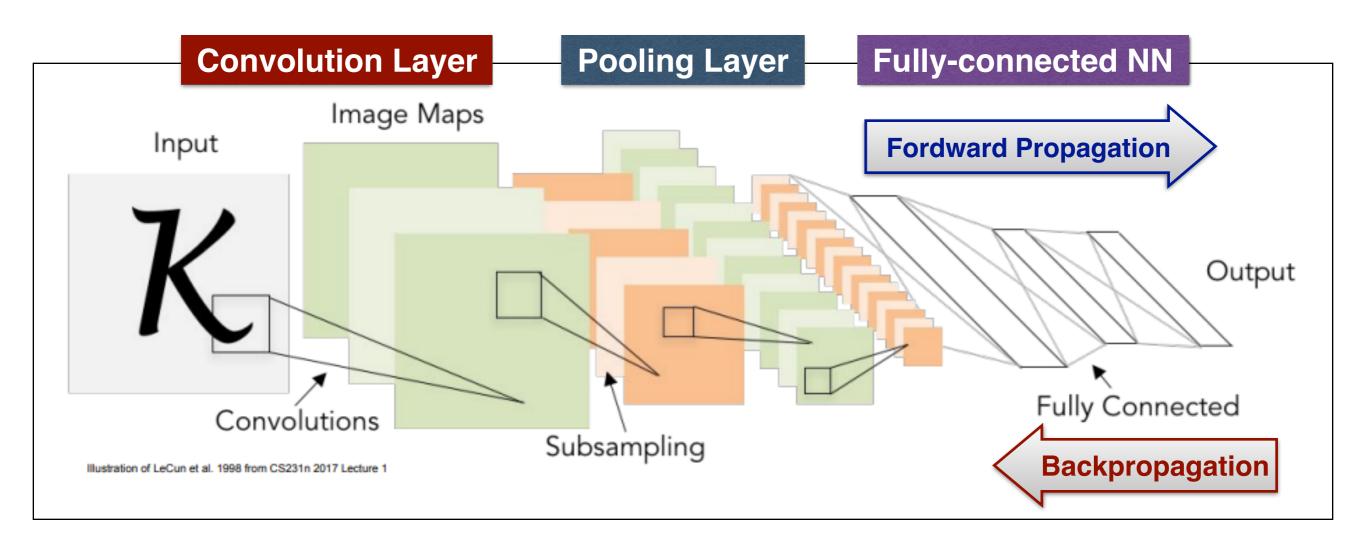
Single depth slice



max pool with 2x2 filters and stride 2

6	8
3	4

李飛飛教授: Convolutional Neural Networks (教學投影片) (http://cs231n.stanford.edu/slides/2017/cs231n_2017_lecture5.pdf)



李飛飛教授: Convolutional Neural Networks (教學投影片) (http://cs231n.stanford.edu/slides/2017/cs231n_2017_lecture5.pdf)

Advanced Topics of ConvNets (CNN)

- LeNet
- AlexNet
- ZF Net
- GoogLeNet
- VGGNet
- ResNet