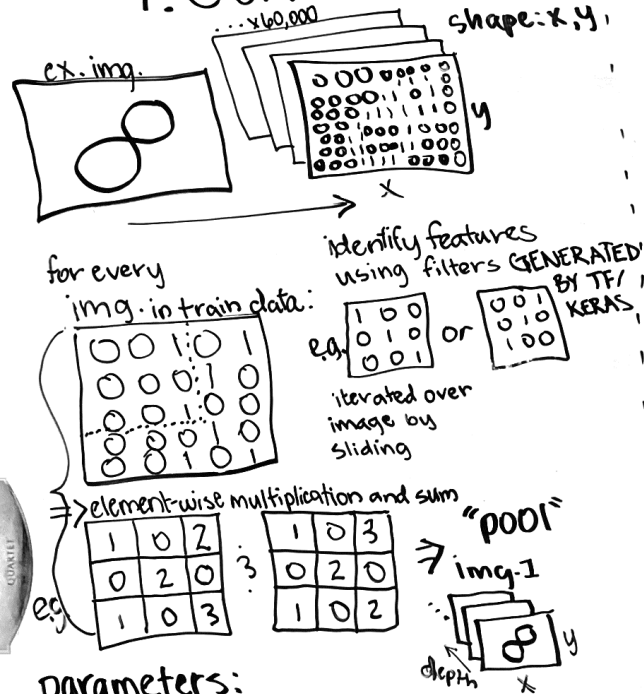
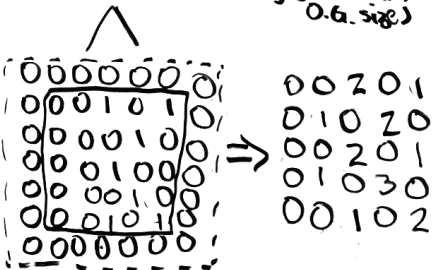


# 1. convolution



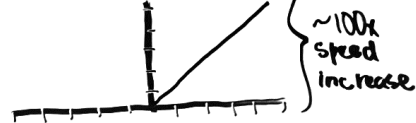
parameters:

- shape
- depth (# of filters)
- stride (distance of iteration)
- zero-padding (maintain 0.6 size)

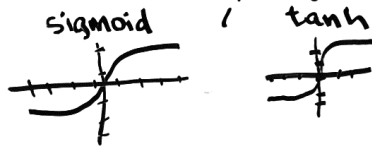


# 2. non-linearity (ReLU)

"rectified linear unit"



- replaces all negative values in a feature map with zero



- normalizations run after every conv. function

## 2.5 Pooling

• downsampling of data by:

- max
- avg.
- sum
- etc.

1	0	2
0	2	0
1	0	3

$\hookrightarrow$  2x2 avg. filter

0.75	1
0.75	1.25

- smaller dimensionality
- prevents overfitting

# 3. fully connected layer