



deeplearning.ai

# Object Detection

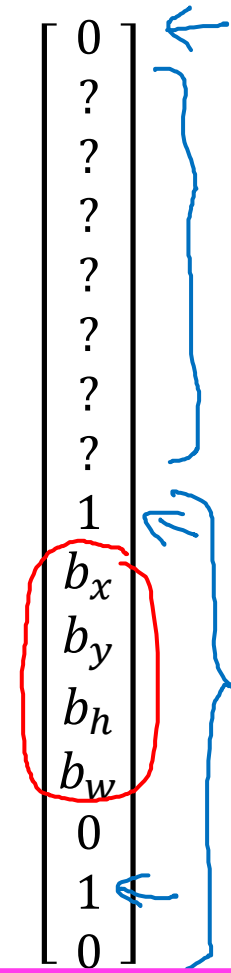
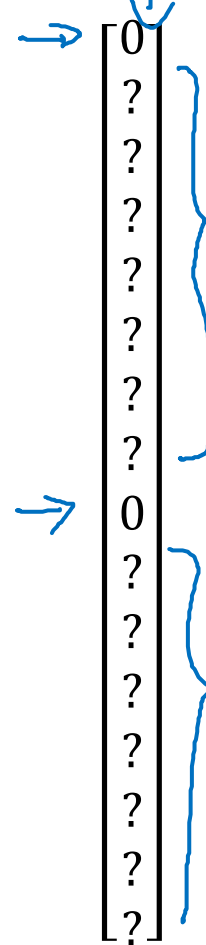
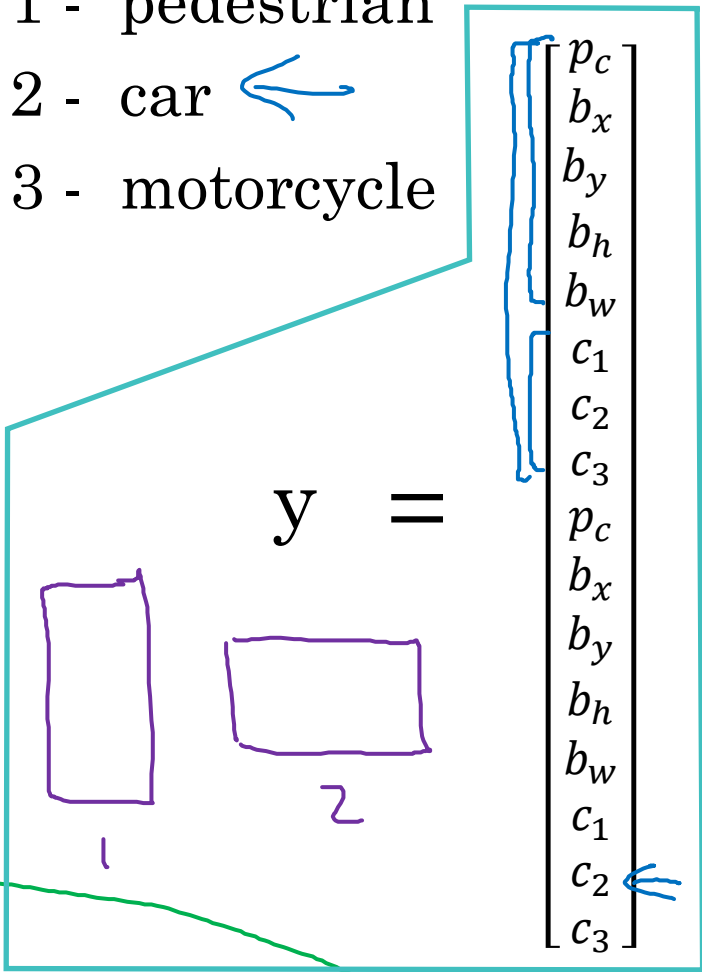
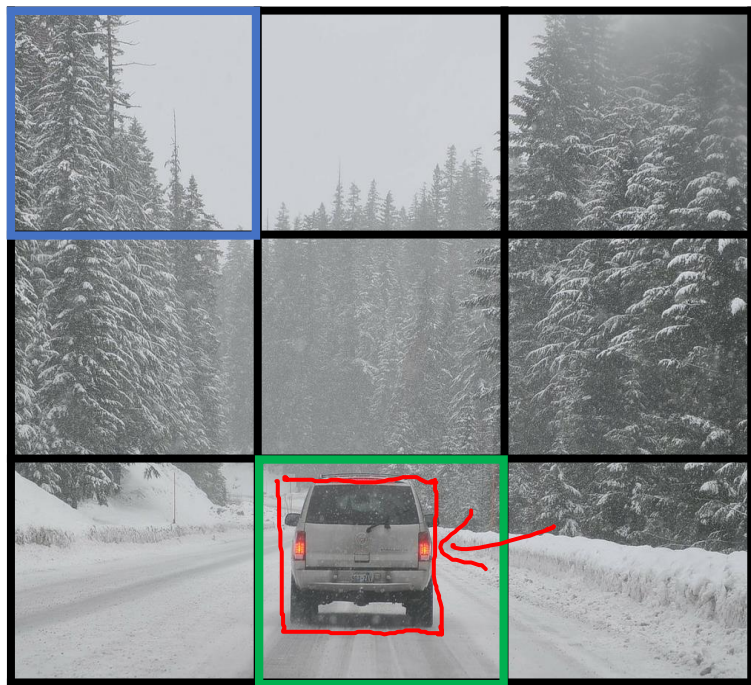
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Putting it together:

YOLO algorithm

# Training

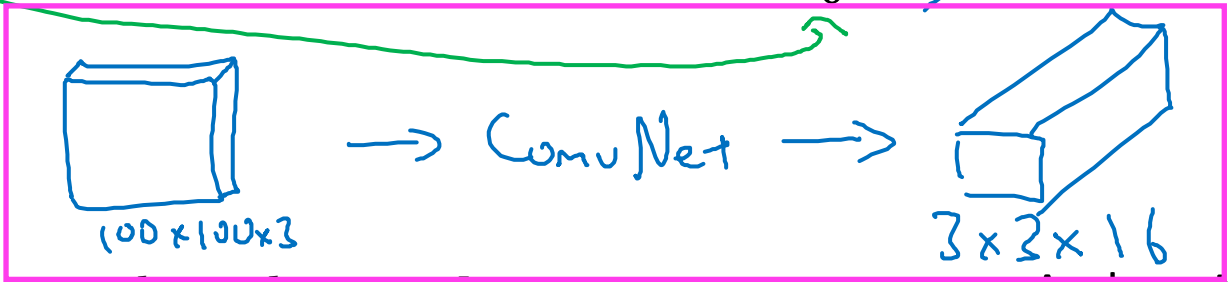
- 1 - pedestrian
- 2 - car ←
- 3 - motorcycle



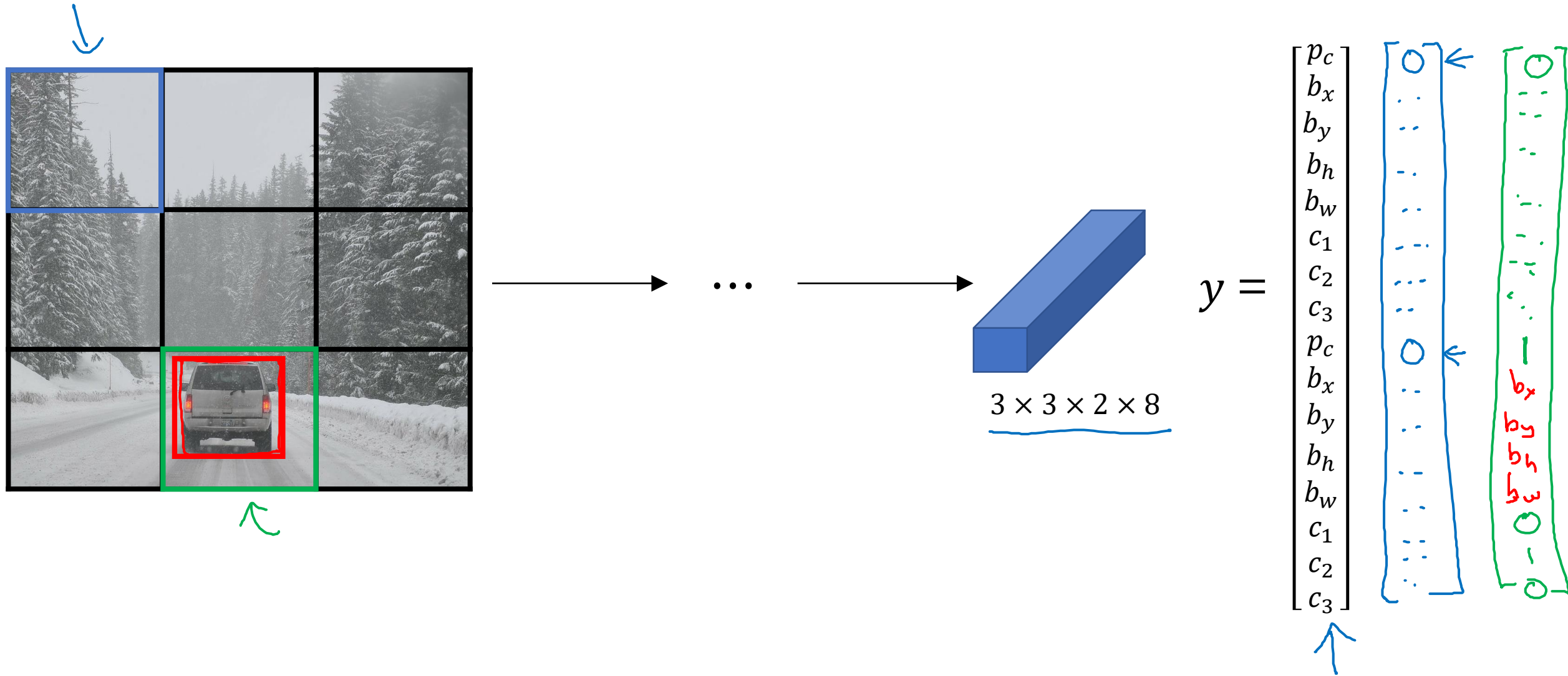
$y$  is  $3 \times 3 \times 2 \times 8$

$10 \times 10 \times 16$   
 $10 \times 10 \times 40$

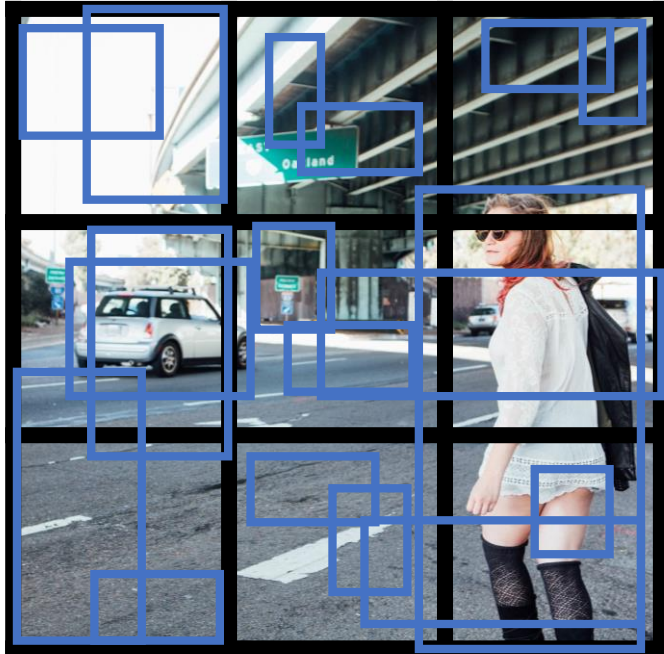
#anchors  $\uparrow$   $5 + \#classes$



# Making predictions



# Outputting the non-max suppressed outputs



- For each grid cell, get 2 predicted bounding boxes.
- Get rid of low probability predictions.
- For each class (pedestrian, car, motorcycle) use non-max suppression to generate final predictions. (For each of the class, they are done independently in this step. )