



deeplearning.ai





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Object Detection

Landmark
detection

Landmark detection



b_x, b_y, b_h, b_w



Landmark detection



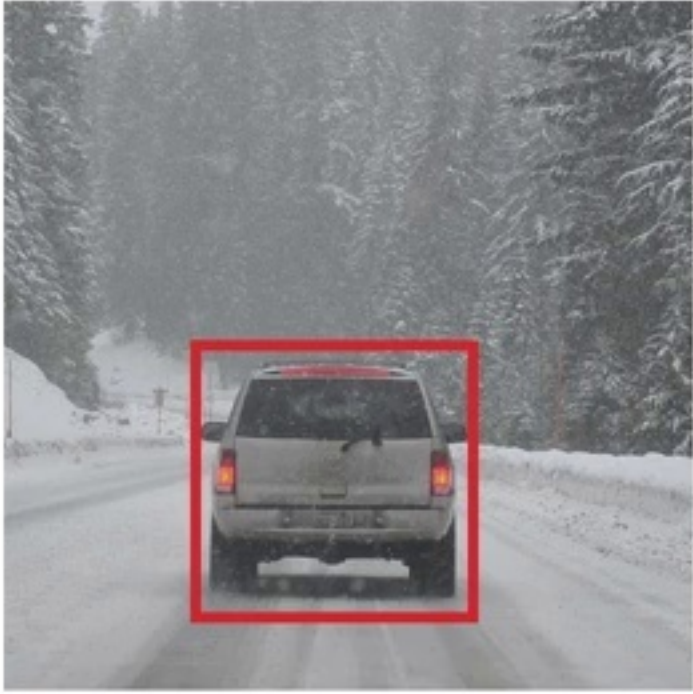
b_x, b_y, b_h, b_w



l_x, l_y



Landmark detection



b_x, b_y, b_h, b_w



$l_{1x}, l_{1y},$
 $l_{2x}, l_{2y},$
 $l_{3x}, l_{3y},$
 l_{4x}, l_{4y}



Landmark detection

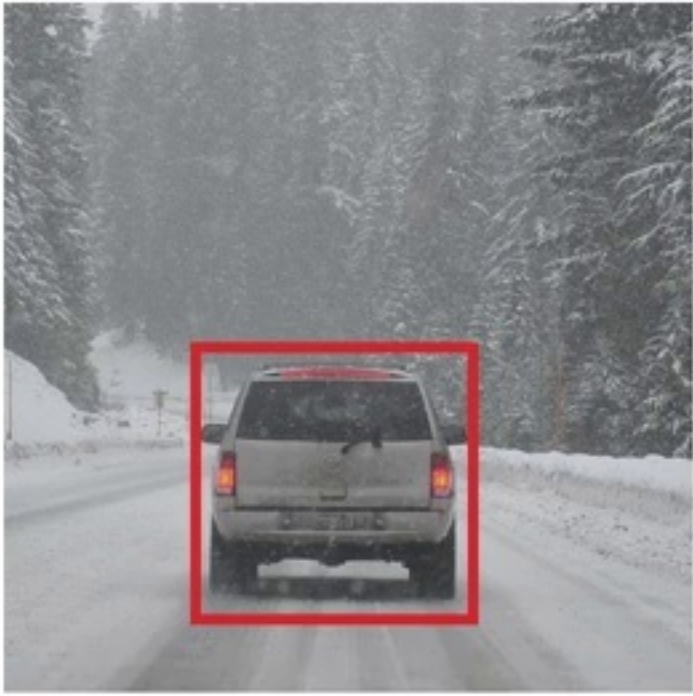


b_x, b_y, b_h, b_w



$l_{1x}, l_{1y},$
 $l_{2x}, l_{2y},$
 $l_{3x}, l_{3y},$
 $l_{4x}, l_{4y},$
 \vdots
 l_{64x}, l_{64y}

Landmark detection

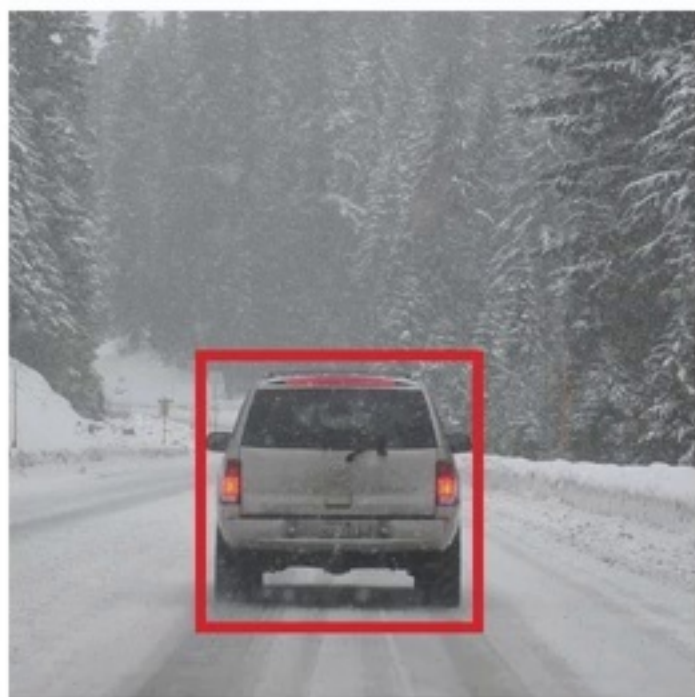
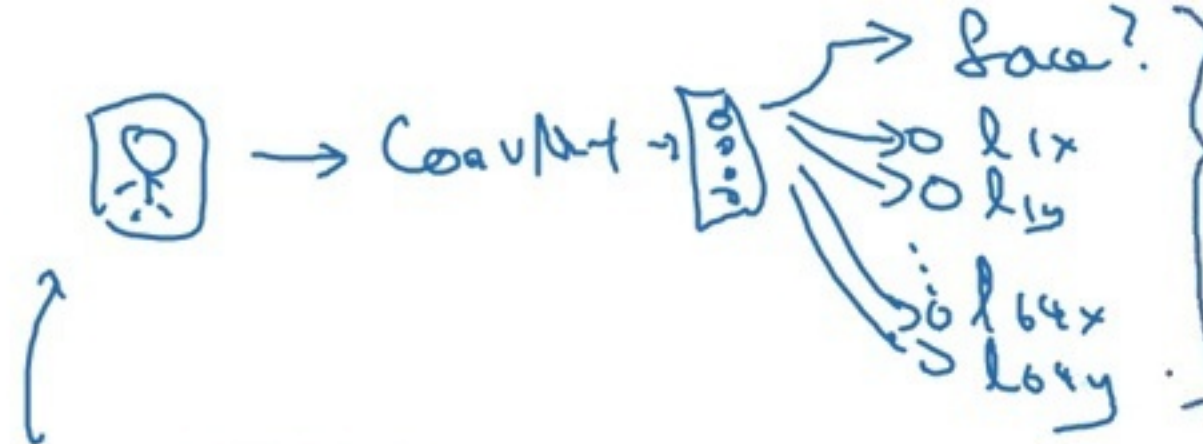


b_x, b_y, b_h, b_w

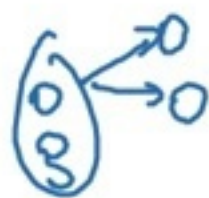


$l_{1x}, l_{1y},$
 $l_{2x}, l_{2y},$
 $l_{3x}, l_{3y},$
 $l_{4x}, l_{4y},$
 \vdots
 l_{64x}, l_{64y}

Landmark detection

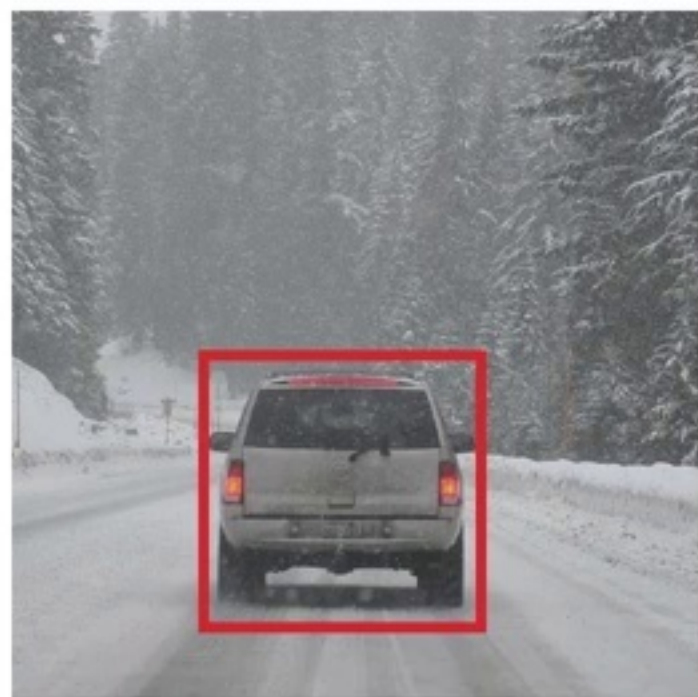
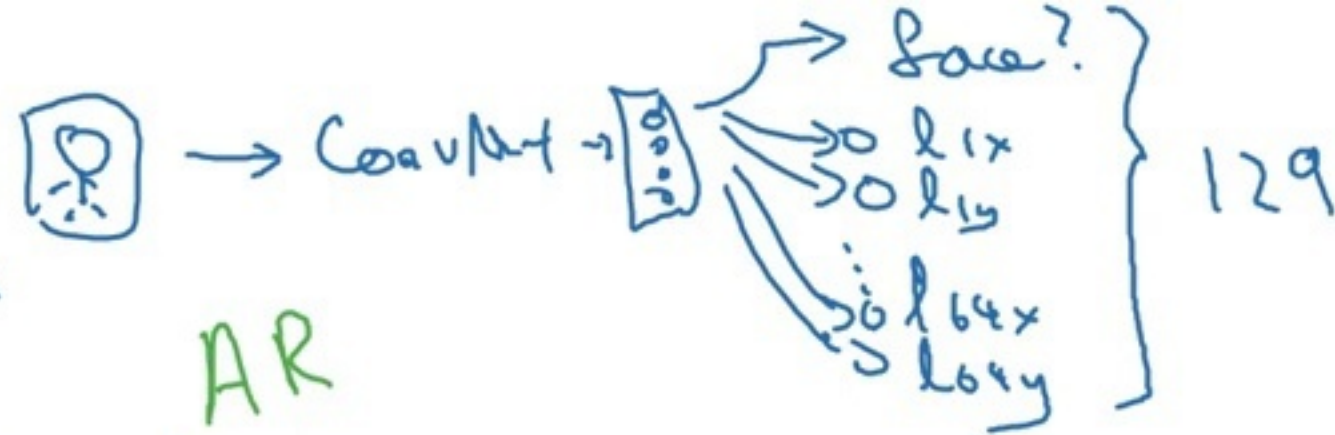


b_x, b_y, b_h, b_w

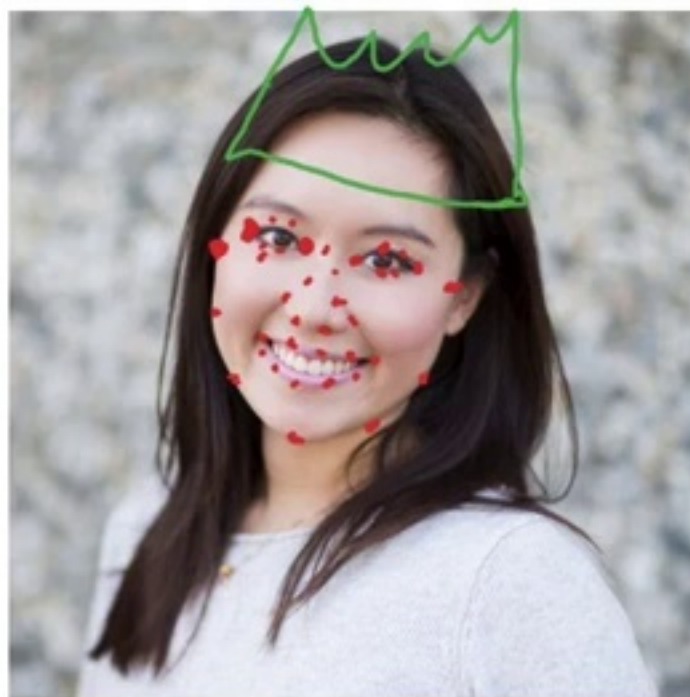


$l_{1x}, l_{1y},$
 $l_{2x}, l_{2y},$
 $l_{3x}, l_{3y},$
 $l_{4x}, l_{4y},$
 \vdots
 l_{64x}, l_{64y}

Landmark detection



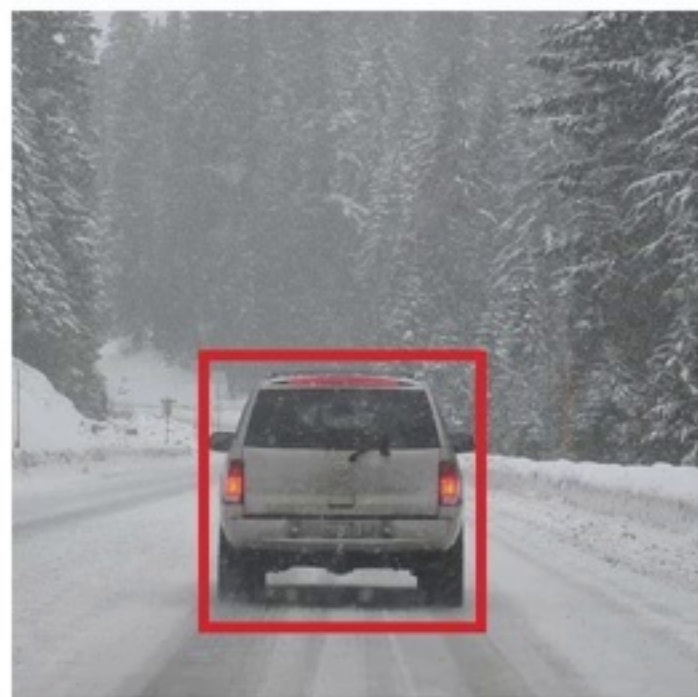
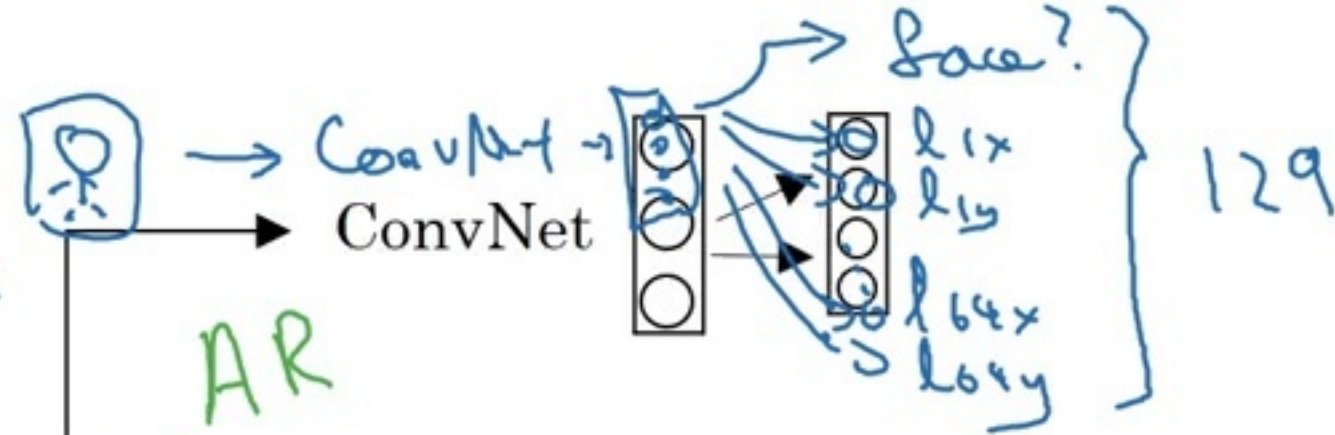
b_x, b_y, b_h, b_w



$l_{1x}, l_{1y}, l_{2x}, l_{2y}, l_{3x}, l_{3y}, l_{4x}, l_{4y}, \dots, l_{64x}, l_{64y}$

x, y

Landmark detection



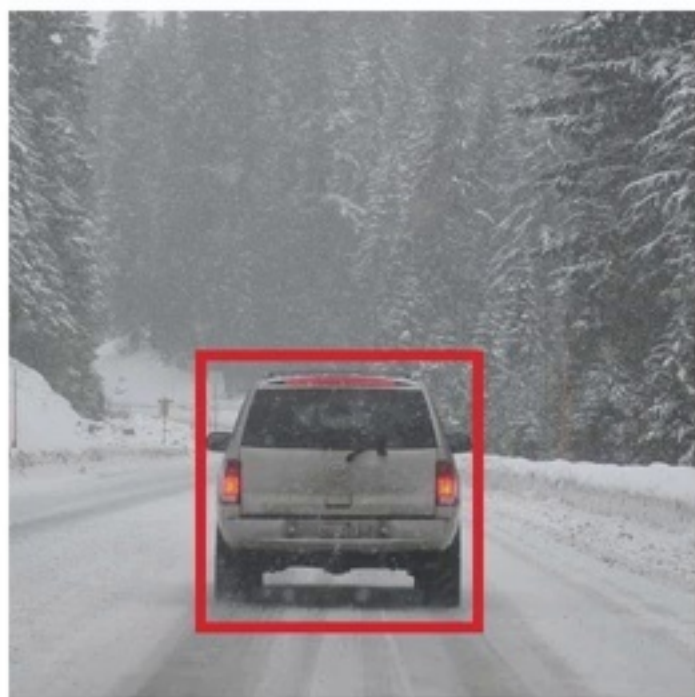
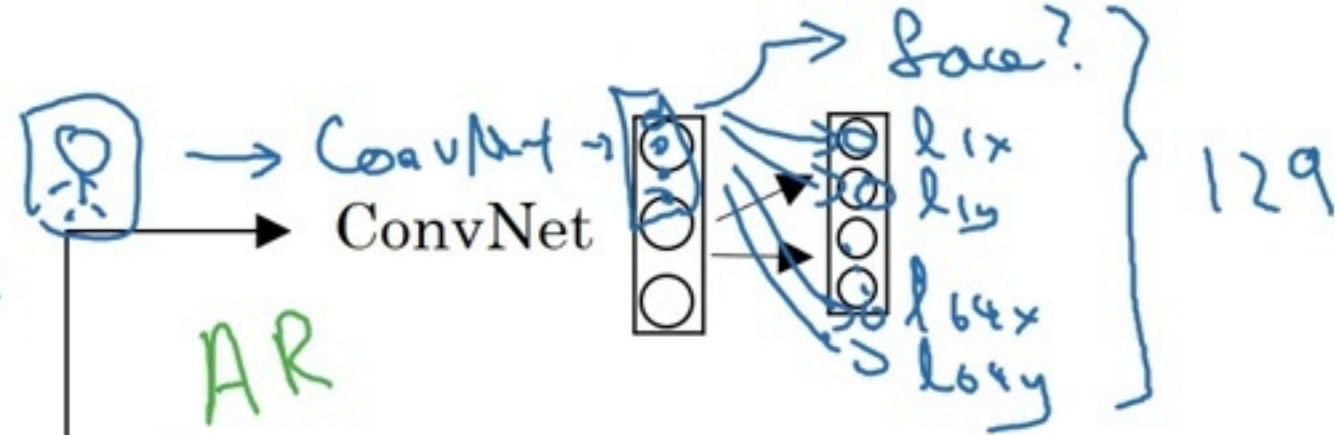
b_x, b_y, b_h, b_w



l1x, l1y, l2x, l2y, l3x, l3y, l4x, l4y, ..., l64x, l64y

X, y

Landmark detection



b_x, b_y, b_h, b_w



$l_{1x}, l_{1y},$
 $l_{2x}, l_{2y},$
 $l_{3x}, l_{3y},$
 $l_{4x}, l_{4y},$
 \vdots
 l_{64x}, l_{64y}

x, y

$l_{1x}, l_{1y},$
 \vdots
 l_{32x}, l_{32y}