

Chapter 1

YOLO

YOLOs are used for object detection. Other networks also used for objection detection are R-CNN, Fast R-CNN & Faster R-CNN.

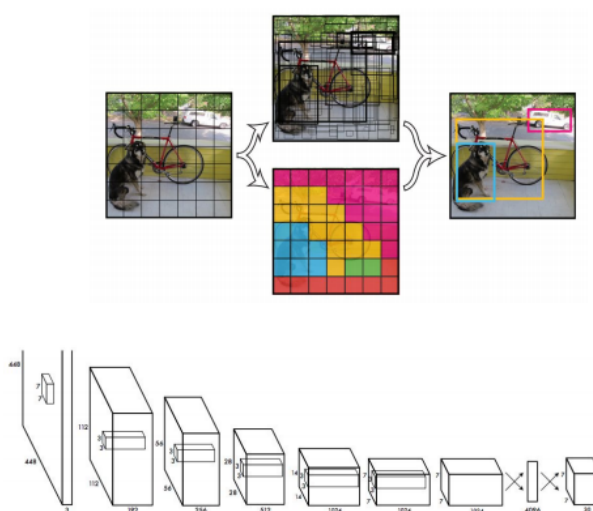


FIGURE 1.1: YOLO

Another detection strategy that is also commonly used is YOLO. The idea is to solve detection as only a regression problem. Direct prediction using a CNN.

Divide image into $S \times S$ grid, they use $S = 7$. The, within each grid cell predict:

- B boxes: 4 coordinates + confidence, they use $B = 2$
- Class scores: C numbers

Regression from input image to output $S \times S \times (5 * B + C)$ tensor.

It can go at real-time at the expense of lower mAP than Faster R-CNN.

