



figure.png

Figure 1: Bounding Boxes with Dimension Priors and Location Prediction, adapted from [?]. The center coordinates of the box can be calculated with the predicted values  $t_x, t_y$  using a sigmoid function and offset by the location of grid cell  $c_x, c_y$ . The width and height of the final box are adjusted to the previous width  $p_w$  and height  $p_h$  and scaled by  $e^{t_w}$  and  $e^{t_h}$ .

$$\begin{aligned} b_x &= \sigma_{t_x} + c_x \\ b_y &= \sigma_{t_y} + c_y \\ b_w &= p_w \cdot e^{t_w} \\ b_h &= p_h \cdot e^{t_h} \end{aligned} \tag{1}$$