Accuracy Metriks

Recall: Recall measures how good you find all the positives. In other words, Recall shows us that how many of datas that we need to predict positively, we predicted as positive. Recall is particularly important where the cost of FP estimation is high.

$$recall = \frac{TP}{TP+FN}$$

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Precision: Precision measures how accurate is your predictions. In other words, precision shows how many of the values we predicted as Positive are actually Positive. Precision is particularly important where the cost of FP estimation is high.

$$\text{Precision} = \frac{\text{TP}}{(\text{TP} + \text{FP})}$$

mAP: mAP(Mean Average Precision), is a metric used to measure the performance of models doing object detection tasks. The mAP is calculated by finding Average Precision(AP) for each class and then average over a number of classes.

$$\text{mAP} = \frac{1}{N}\sum_{i=1}^{N} \text{AP}_i$$

IOU: We use that to measure how much our predicted boundary overlaps with the ground truth.

$$\text{IoU} = \frac{\text{Area of Overlap}}{\text{Area of Union}}$$

F1 Score: F1 score is used to avoid making an incorrect model selection in data sets that are not evenly distributed.

$$F1\ Score = 2 \times \frac{recall \times precision}{recall + precision}$$