Supervised Learning

Regression

Predict continous values

output: Real numbers

Evaluation: MAE, MSE, RMSE, R^2

Eg: MLR

classification

Predict the classes

output: classes / Boolean

Evaluation: Accuracy

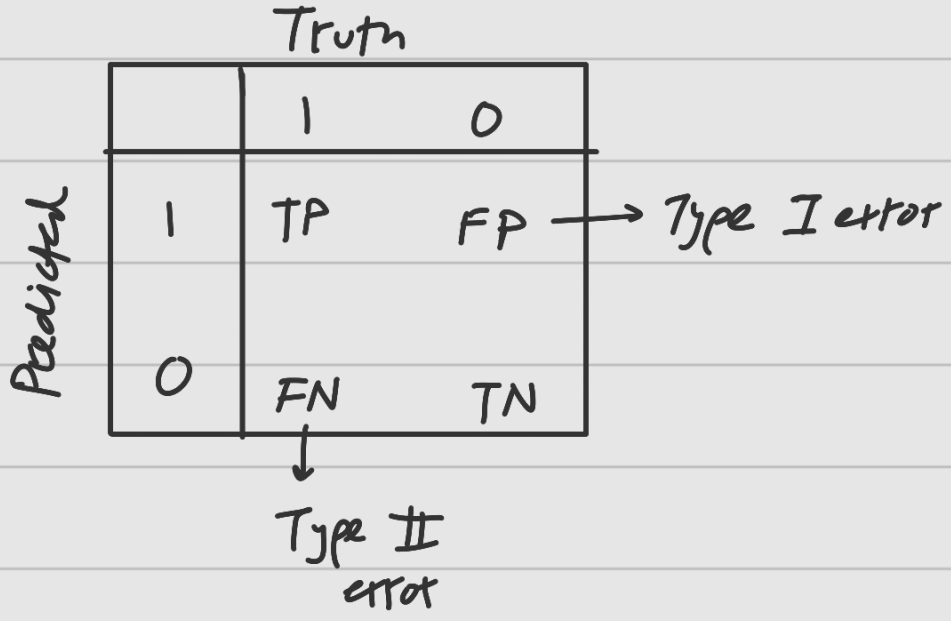
Precision, Recall, F1

TPR, FPR etc.

Eg: logistic Regression

$$\frac{1}{1+e^{-(b_0+b_1X)}}$$

→ Confusion Matrix



Accuracy : $\frac{TP+TN}{TP+TN+FP+FN}$

Precision : $\frac{TP}{TP+FP}$

Recall, Sensitivity, True +ve rate : $\frac{TP}{TP+FN}$

$F_1 = \frac{2 \times Prec \times recall}{(Prec + recall)}$

Specificity, True -ve rate : $\frac{TN}{TN+FP}$

False +ve rate : $\frac{FP}{FP+TN}$