Loss Function

Loss Function

Loss function measures how far an estimated value is from its true value.

It is helpful to determine which model performs better & which parameters are better.

$$\textit{Loss} = \frac{1}{n}\sum_{i=1}^{n}(Y_i - \hat{Y}_i)^2$$

Types of Loss Function:

- ❖ Cross Entropy Loss
- ❖ Squared Error Loss
- ❖ KL Divergence

x	y	y_1	y_2	y_3
0.30	0.35	0.38	0.39	0.41
0.45	0.48	0.45	0.47	0.56
0.50	0.55	0.59	0.58	0.63
0.55	0.63	0.65	0.69	0.70
0.66	0.72	0.75	0.78	0.78

$$\textit{Loss} = \frac{1}{n}\sum_{i=1}^{n}(Y_i - \hat{Y}_i)^2$$

$Loss_1$ = [$(0.35-0.38)^2 + (0.48-0.45)^2 + (0.55-0.59)^2 + (0.63-0.65)^2 + (0.72-0.75)^2$] / 5

$Loss_1$ = 0.173

Low Loss value → High Accuracy

This is squared error loss