Siddhardhan

Probability for Machine Learning

Math for Machine Learning

What is Probability ?

Probability is a branch of Mathematics that deals with calculating the likelihood of a given event to occur.

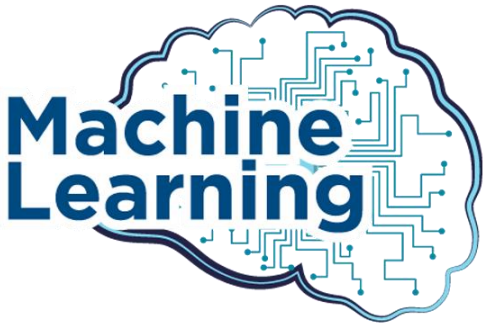
Probability

Simple Examples:

1. Roll a Dice
2. Toss a coin
3. Bag containing different coloured balls

Head Tail

Importance of Probability in ML



Machine Learning Model

$$\frac{1}{n}\sum(y_i - \hat{y}_i)^2$$

Loss Function

Topics covered in this module:

1. Basics of Probability
2. Random Variables
3. Probability Distributions
4. Maximum Likelihood
5. Bayes Theorem
6. Information Theory
7. Cross Entropy
8. Information Gain