Glossary

1. Frequency Distribution

Frequency distribution is defined as a mathematical function showing the number of instances in which a variable takes each of its possible values

2. Mean

Mean is the quotient of the sum of several quantities and their number.

3. Mode

A Mode is the value that occurs the most frequently in a data set or a probability distribution.

4. Median:

A Median is the middle value of a range of values.

5. Probability

Probability is a numerical measure of the likelihood that a specific event will occur.

6. Discrete Random Variable

A discrete probability distribution is a probability distribution characterized by a probability mass function

7. PMF (Probability Mass Function)

A probability mass function (pmf) is a function that gives the probability that a discrete random variable is exactly equal to some value.

8. Variance

The variance is a measure of how far a set of numbers is spread out. It is one of several descriptors of a probability distribution, describing how far the numbers lie from the mean (expected value). In particular, the variance is one of the moments of a distribution.

9. Expectation

The expectation E(X) is simply defined as the sum of the products of all values by the respective probability. There expectation is valid for discrete and continuous distributions. The Expectation is actually synonymous with the mean value.

10. Quartiles

The quartiles of a set of values are the three points that divide the data set into four equal groups, each representing a fourth of the population being sampled. A quartile is a type of quantile.

11. Quartile Range

The difference between upper and lower quartile is called inter quartile range.

12. Skewness

Skewness is a measure of the asymmetry of the probability distribution of a real-valued random variable.

13. Mode Skewness

Mode skewness is the normalized difference between the Mean and the Mode of a

distribution. This statistic is also known as Pearson's Mode Skewness.

14. Quartile Skewness

A definition of skewness which uses only quartiles and does incorporate any moment based properties is known as quartile skewness. This is also known as the Bowley's coefficient of skewness.

15. Kurtosis

Kurtosis is defined as the sharpness of the peak of a frequency-distribution curve.