

# Normal Distribution

A normal distribution is determined by two parameters the mean and the variance. A normal distribution with a mean of 0 and a standard deviation of 1 is called a standard normal distribution.

A normal distribution is a true symmetric distribution of observed values. When a histogram is constructed on values that are normally distributed, the shape of columns form a symmetrical bell shape. This is why this distribution is also known as a 'normal curve' or 'bell curve'.

## Handle missing data

In order to check missing values in Pandas DataFrame, we use a function `isnull()` and `notnull()`. Both function help in checking whether a value is NaN or not.

## Imputing the Missing Value

Replacing With Arbitrary Value

Replacing With Mode.

Replacing With Median.

Replacing with previous value – Forward fill. ...

Replacing with next value – Backward fill. ...

Impute the Most Frequent Value.

`simple imputer`, `fillna`, `inplace` is used to imputing missing value

## A/B testing

A/B testing allows individuals, teams and companies to make careful changes to their user experiences while collecting data on the results. This allows them to construct hypotheses and to learn why certain elements of their experiences impact user behavior.

## linear regression in statistics

Linear regression analysis is used to predict the value of a variable based on the value of another variable. The variable you want to predict is called the dependent variable. The variable you are using to predict the other variable's value is called the independent variable

15. What are the various branches of statistics?

