1. Define the Bayesian interpretation of probability.

Naïve bayes is used to find the probability of an event when the other event has already happened(conditional probability).

It is used / and performs well in classification problem.

1. Define probability of a union of two events with equation.

A union b= p(a) + p(b)-p(a intersection b)

1. What is joint probability? What is its formula?

The union of two or more sets is the set that contains all the elements of the two or more sets. ...

The general probability addition rule for the union of two events states that P(A∪B)=P(A)+P(B)−P(A∩B) P ( A ∪ B ) = P ( A ) + P ( B ) − P ( A ∩ B ) ,

where A∩B A ∩ B is the intersection of the two sets.

1. What is chain rule of probability?

The chain rule, or general product rule, calculates any component of the joint distribution of a set of random variables using only conditional probabilities. This probability theory is used as a foundation for back propagation and in creating Bayesian

networks.

1. What is conditional probability means? What is the formula of it?

the chain rule, or general product rule, calculates any component of the joint distribution of a set of random variables using

only conditional probabilities. This probability theory is used as a foundation for back propagation and in creating Bayesian

networks.

1. What are continuous random variables?

A continuous random variable is one which takes an infinite number of possible values. Continuous random variables are usually

measurements. Examples include height, weight, the amount of sugar in an orange, the time required to run a mile

1. What are Bernoulli distributions? What is the formula of it?

Let A be some event associated with a random experiment E, such that P(A) = p and P(A’) = q = 1 – p.

1. What is binomial distribution? What is the formula?

The binomial distribution formula is for any random variable X, given by; P(x:n,p) = nCx x px (1-p)n-x Or P(x:n,p) = nCx x px (q)n-x, where, n is the number of experiments, p is probability of success in a single experiment, q is probability of failure in a single experiment (= 1 – p) and takes values as 0, 1, 2, 3, 4,

9.What is Poisson distribution? What is the formula?

The Poisson Distribution formula is: P(x; μ) = (e-μ) (μx) / x! Let's say that that x (as in the prime counting function is a very big number, like x = 10100. If you choose a random number that's less than or equal to x, the probability of that number being prime is about 0.43 percent

1. Define covariance.

Covariance provides insight into how two variables are related to one another. More precisely, covariance refers to the measure of how two random variables in a data set will change together. A positive covariance means that the two variables at hand are

positively related, and they move in the same direction.

1. Define correlation.

Correlation is a statistical measure that expresses the extent to which two variables are linearly related (meaning they change together at a constant rate). It's a common tool for describing simple relationships without making a statement at because and effect.

1. Define sampling with replacement. Give example.

Sampling is called with replacement when a unit selected at random from the population is returned to the population and then a second element is selected at random. Whenever a unit is selected, the population contains all the same units, so a unit may be selected more than once.

1. What is sampling without replacement? Give example.

In sampling without replacement, each sample unit of the population has only one chance to be selected in the sample. For example, if one draws a simple random sample such that no unit occurs more than one time in the sample, the sample is drawn without replacement

1. What is hypothesis? Give example

Hypothesis is making a statement without any proof. Here are some examples of hypothesis statements: If garlic repels fleas, then a dog that is given garlic every day will not get fleas. Bacterial growth may be affected by moisture levels in the air. If sugar causes cavities, then people who eat a lot of candy may be more prone to cavities