Welcome to ineuron.ai

Statistics using Python

Description:

This course will brush up on your statistics skills which is something everyone needs to work on in school. But it's a difficult task to learn all the statistical concepts which seems like a daunting task. This course is created keeping in mind the important statistical topics in school. Here you will quickly get the absolutely essential statistical knowledge for the journey to becoming a Statistician, Data Scientist, or Analyst.

Start Date:

Doubt Clear Time:

Course Time:

Features:

Online Instructor-led learning

Practical Implementation

Integrate academic knowledge with tech

Real-time project

Live class recording

Completion certificate

What we learn:

Introduction to Course

Introduction to Probability and statistics

Sets

Permutation and Combination

Statistics

Probability

Regression

Hypothesis testing

Requirements:

System with Internet Connection

Interest to learn

Dedication

Instructor:

>Introduction to Course:

>>Course Introduction

>>Course pre-requisites

>>Who is this course for?

>>What you will get from this course?

>>Introduction to probability and statistics

>>How to get access to course materials?

>>What career path you can follow after completion of this course?

>Assignment:

>> Give a real world example of probability you see everyday.

>>Generate a sequence of n random coin flips and returns total number of tails.

>> Write a function for complement of union A = {1, 2, 3} B = {3, -6, 2, 0} U = {-10, -9, -8

>>Write a function that takes two natural numbers k and n as inputs and returns the set

>>Demonstrate how the sample mean approximates the distribution mean

>>Suppose 36% of families own a dog, 30% of families own a cat, and 22% of the famili

>Introduction to Probability and statistics:

>>What is Probability theory?

>>What is Statistics?

>>History of Probability and Statistics

>>Practical: Simulating coin flips k times using python

>>Stats Case Discussion: Election polls

>>Long-Term frequency

>Sets:

>>Basics of Sets

>>Venn Diagrams

>>Relations

>>Operations

>>Cartesian Products

>>Russel's Paradox

>Permutation and Combination:

>>What is Permutation?

>>What is Combination?

>>Applications of Binomial Coefficient?

>>Properties of Binomial Coefficient?

>>Binomial Theorem

>>Multinomials

>Statistics:

>>Statistics Introduction

>>Mean

>>Variance

>>Mean and Variance estimation

>>Standard deviation

>>Confidence interval

>Probability:

>>Probability Introduction

>>Distribution types

>>Events

>>Inequalities

>>Conditional probability

>>Sequential probability

>>Total probability

>>Baye's rule

>Regression:

>>Basics of Linear Algebra

>>Matrix operations

>>Solving linear equation

>>Discussion: Linear regression

>>Discussion: Polynomial regression

>>PCA intuition

>Hypothesis testing:

>>Hypothesis testing example

>>Hypothesis testing p values

>>Null hypothesis

>>Z-test

>>T-test

>Summary:

>>Course Outro

>>Future Scope of Statistics