edureka!
Discover Learning

Decision Tree Modeling Using R Certification Training

Course Curriculum : Your 8 module Learning Plan

https://www.edureka.co/decision-tree-modelling-using-r-sp

About Edureka

Edureka is a leading e-learning platform providing live instructor-led interactive online training. We cater to professionals and students across the globe in categories like Big Data & Hadoop, Business Analytics, NoSQL Databases, Java & Mobile Technologies, System Engineering, Project Management and Programming. We have an easy and affordable learning solution that is accessible to millions of learners. With our students spread across countries like the US, India, UK, Canada, Singapore, Australia, Middle East, Brazil and many others, we have built a community of over 1 million learners across the globe.

About Course

Become a Decision Tree Modeling expert using R platform by mastering concepts like Data design, Regression Tree, Pruning and various algorithms like CHAID, CART, ID3, GINI and Random forest.

Curriculum

Introduction to Decision Tree

Learning Objectives - In this module, you will understand What is a Decision Tree and what are the benefits. What are the core objectives of Decision Tree modelling, How to understand the gains from the Decision Tree and How does one apply the same in business scenarios

Topics - Decision Tree modeling Objective, Anatomy of a Decision Tree, Gains from a decision tree (KS calculations), and Definitions related to objective segmentations

Data design for Modelling

Learning Objectives - In this module, you will learn how to design the data for modelling

Topics - Historical window, Performance window, Decide performance window horizon using Vintage analysis, General precautions related to data design

Data treatment before Modelling

Learning Objectives - In this module, you will learn how to ensure Data Sanity check and you will also learn to perform the necessary checks before modelling

Topics - Data sanity check-Contents, View, Frequency Distribution, Means / Uni-variate, Categorical variable treatment, Missing value treatment guideline, capping guideline

Classification of Tree development and Algorithm details

Learning Objectives - In this module, you will learn to use R and the Algorithm to develop the Decision Tree.

Topics - Preamble to data, Installing R package and R studio, Developing first Decision Tree in R studio, Find strength of the model, Algorithm behind Decision Tree, How is a Decision Tree

developed?, First on Categorical dependent variable, GINI Method, Steps taken by software programs to learn the classification (develop the tree), Assignment on decision tree

Industry practice of Classification tree-Development, Validation and Usage

Learning Objectives - In this module you will understand how Classification trees are Developed, Validated and Used in the industry

Topics - Discussion on assignment, Find Strength of the model, Steps taken by software program to implement the learning on unseen data, learning more from practical point of view, Model Validation and Deployment.

Regression Tree and Auto Pruning

Learning Objectives - In this module you will understand the Advance stopping criteria of a decision tree. You will also learn to develop Decision Trees for numerous outcomes.

Topics - Introduction to Pruning, Steps of Pruning, Logic of pruning, Understand K fold validation for model, Implement Auto Pruning using R, Develop Regression Tree, Interpret the output, How it is different from Linear Regression, Advantages and Disadvantages over Linear Regression, Another Regression Tree using R

CHAID Algorithm

Learning Objectives - In this module you will learn what is Chi square and CHAID and their working and also the difference between CHAID and CART etc..

Topics - Key features of CART, Chi square statistics, Implement Chi square for decision tree development, Syntax for CHAID using R, and CHAID vs CART.

Other Algorithms

Learning Objectives - In this module you will learn about ID3, Entropy, Random Forest and Random Forest using R

Topics - Entropy in the context of decision tree, ID3, Random Forest Method and Using R for Random forest method, Project work

Projects

How will I execute the Practicals?

For your practical work, we will help you setup Edureka's Virtual Machine in your System. This will be a local access for you. The required installation guide is present in LMS.