XALTIUS
Towards Higher Excellence

Let's start our Research!

Data Science using R

This programme is aligned with the current requirements of the industry today in the data track. Today Data Analyst and Data Scientist are required to use statistical packages in R. This course aims at quickly speeding up a beginner analyst to using R as a data science tool.

www.xaltiusacademy.com

Start your data science journey with us.

There is no pre-requisite required to attend this course.

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A short course in 16 hours.

What You'll Learn

The programme will define data science and explore the main things a data analyst/scientist must do – cleaning and visualizing data, the Data Science Workflow, Web Scraping and basic machine learning models. The participants will learn and use various R packages for these tasks. At the end of the programme, the participant should have a working knowledge of how to solve data science problems with R.

Learn how you can put your data to good use.

About the Course

These are the key takeaways that participants will gain:

- Understand the basic concepts of R programming
- Basics of Data Analytics
- How to scrape data from web
- How to do exploratory data analysis
- Best practices to visualize data in R
- Basics of Machine Learning using R
- How to build a Shiny app

It's about your goals & your future!

Contact us | info@xaltius.tech or +65 8303 9150 / +65 9138 9813

Course Outline

Module 1: Basics of R and Data Analytics

Participants will be exposed to the basics and nuances of the R programming language as well as how to perform basic data analytics.

- Introduction to R and the Ecosystem
- Working with R Markdowns
- Basics of R Recap
    - Data Types
    - Conditional Execution
    - Flow Control
    - Functions
- Data Analytics Process
    - Data Acquisition (File-based)
    - Data Cleaning and Manipulation
    - Tidy Data Concepts/Application
- Statistical Analysis with R
    - Summary Statistics
    - Correlations and similar techniques
    - Linear Regression
    - Hypothesis Testing
- Web Scraping with R

Module 2: Advanced Topics in R

Participants will be exposed to data visualization, exploratory data analysis techniques and the basics of machine learning using R. They will also be exposed to the basics of R Shiny and how to quickly build an application.

- Exploratory Data Analysis in R
- Data Visualization in R using
    - ggplot
    - rgl (3D plots)
    - leaflet (Maps)
- Basics of Supervised and Unsupervised learning
- Classification using caret/nnets
- K-Means Clustering
- How to build a Shiny app
    - User Interface (UI)
    - Server

Join us & launch your career in data science.

It's time to upskill for the Industry 4.0

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