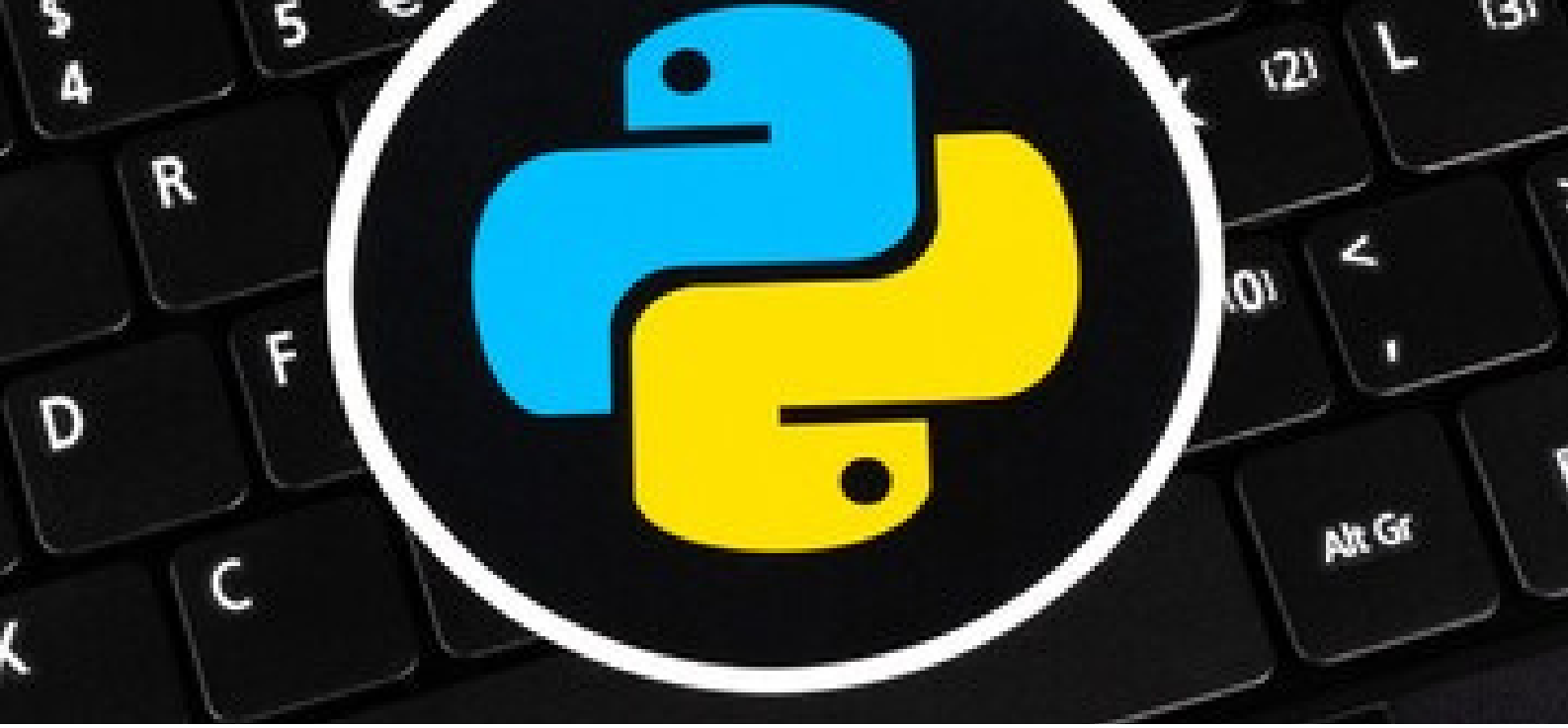
R PROGRAMMING

- Access to Interview Opportunities with Top Companies
- Industry-Relevant Curriculum Designed and Taught by Industry Experts
- Hands on Project and Industry Specific Tools
- Dedicated CareerSupport and Interview Preparation
- Post Graduate Certificatefrom Great Lakes Executive Learning



Python has become a cornerstone in the IT industry due to its versatility, readability, and extensive ecosystem of libraries and frameworks. Widely adopted for web development, data science, machine learning, and automation, Python offers a simple syntax that makes it accessible for beginners yet powerful enough for complex applications. Its popularity stems from its role as a general-purpose language, fostering rapid development and efficient code maintenance. Python's extensive community support and a rich set of libraries such as NumPy, Pandas, and TensorFlow contribute to its dominance in data-centric applications and emerging technologies. In the IT industry, mastering Python equips professionals with a valuable skill set applicable across a spectrum of domains, making it a go-to language for building scalable, innovative, and robust solutions.

The Program helps you do grow and bloom in Industry and developed by best-in-class industry experts.It offers a blend of online learning with live and recorded lectures along with access to dedicated career support and rewarding job opportunities.

LEARN ONLINE ANYTIME, ANYWHERE

Learn from live masterclasses by top industryleaders and online lab sessions every week, along with 100+ hours of learning content.

WEEKLY ONLINE MENTORSHIPFROM EXPERTS

Get assistance on projects and reinforce the concepts you learn through weekly mentorship sessions.

NETWORK WITH LIKE-MINDED PEERS

Interact with peers from diverse backgroundsand grow your professional network.

DEDICATED PROGRAM SUPPORT

Access dedicated support on your learning journey and resolve for all your queries withhelp from a dedicated Program Manager.

A fresh graduate or a working professional looking to up-skill andbuild a career.

LEARNING PLAN

R PROGRAMMING

Module1:Introduction to R Programming

1.1.What is R?

- 1.1.1. Introduction to R Language

- 1.1.2. R's Role in Data Analysis

1.2.Installing and Setting Up R

- 1.2.1. Installing R on Different Platforms

- 1.2.2. RStudio IDE Overview

Module 2:Basics of R Programming

2.1.Variables and Data Types

- 2.1.1. Numeric, Character, Logical

- 2.1.2. Vectors and Data Structures

2.2.Basic Operations

- 2.2.1. Arithmetic and Logical Operators

- 2.2.2. Data Indexing and Sub setting

2.3.Control Structures

- 2.3.1. Conditional Statements (if, else)

- 2.3.2. Loops (for, while)

Module 3:Data Manipulation with R

3.1.Reading Data into R

- 3.1.1. Reading CSV, Excel, and Text Files

- 3.1.2. Importing Data from Databases

3.2.Exporting Data from R

- 3.2.1. Writing Data to Files

- 3.2.2. Exporting Data to Databases

3.3.Data Cleaning and Preprocessing

- 3.3.1. Handling Missing Values

- 3.3.2. Data Transformation

Module 4:Data Analysis with R**

4.1.Summary Statistics

- 4.1.1. Descriptive Statistics

- 4.1.2. Frequency Tables

4.2.Data Visualization

- 4.2.1. Creating Plots with ggplot2

4.2.1. Creating Plots with ggplot2

- 4.2.2. Customizing Visualizations

4.3.Statistical Testing

- 4.3.1. Hypothesis Testing

Module 5:R for Data Science

5.1.Introduction to dplyr

- 5.1.1. Filter, Select, Mutate

- 5.1.2. Group By and Summarize

5.2.Data Visualization with ggplot2

- 5.2.1. Advanced ggplot2 Concepts

- 5.2.2. Creating Interactive Plots

5.3.Working with Tidy Data

- 5.3.1. Reshaping Data

- 5.3.2. Joining and Combining Data Frames

Module 6:R for Machine Learning

6.1.Types of Machine Learning

- 6.1.1. Supervised Learning

- 6.1.2. Unsupervised Learning

6.2.Model Building with Caret

- 6.2.1. Data Splitting and Cross-Validation

6.3.Evaluating Machine Learning Models

- 6.3.1. Performance Metrics

- 6.3.2. Model Tuning and Optimization

Module 7:Advanced R Programming

7.1.Functional Programming in R

- 7.1.1. Functions as First-Class Objects

- 7.1.2. Applying Functions with lapply and sapply

7.2.Object-Oriented Programming (OOP)

- 7.2.1. S3 and S4 Classes

- 7.2.2. Creating Custom Classes

7.3.Error Handling and Debugging

- 7.3.1. Debugging Techniques

- 7.3.2. Handling Errors and Exceptions

Module 8:R in Real-World Applications

8.1.Text Mining with R

- 8.1.1. Text Preprocessing

- 8.1.2. Text Classification and Sentiment Analysis

8.2.Time Series Analysis

- 8.2.1. Time Series Data Handling

- 8.2.2. Forecasting with ARIMA

8.3.Shiny Web Applications

8.2.1. Time Series Data Handling - 8.2.2. Forecasting with ARIMA

8.3.Shiny Web Applications

Module 9:Final Project and Course Review

9.1.Project Proposal and Planning

- 9.1.1. Selecting a Real-World Problem

- 9.1.2. Designing an R Solution

9.2.Implementation and Presentation

- 9.2.1. Building and Deploying the Solution

- 9.2.2. Final Project Presentation

READY TO ADVANCE YOUR CAREER?

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