

**PREROGATIVE**

GROUP OF INSTITUTES

*Empowering Innovation*

An I.S.O 9001:2015 Certified & UDYAM Approved Institute  
Recognized by MeitY(GOI)

# DATA SCIENCE SUMMER INTERNSHIP CUM TRAINING

Embrace the Future: Unlock Your Nxt-Gen Career with #PGOI



100+ Student  
Already Enrolled



Instructor-Led  
Training



Earn Certificates  
And Badges

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[www.prerogative.in](http://www.prerogative.in)

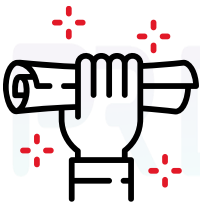
# Data Science Internship

This Data Science Internship Training is a comprehensive learning experience that offers the opportunity to gain in-depth knowledge of various concepts in data science using Python. This Data Science Course covers the concepts of Python data including Machine Learning, Data Plotting using Matplotlib, Data Visualization, SciPy, etc. through hands-on coding exercises and projects.

## Program Overview

This Data Science Internship Certification Program will help you master concepts like Python, Machine Learning, etc. Along with hands-on projects for better clarity on the topics. By the end of the internship, you will have the skills and knowledge to work as a Data Analyst, Data Scientist, or a Machine Learning Engineer. Join us today and take the first step towards a successful career in data science.

## Key Highlights



### Real Time Project use cases

Hands-on experience and exposure to applications



### Digital Badges

You can earn worldwide recognized digital badges



### 1:1 Sessions with Experts

You can request One-on-One Sessions with Industry Experts



### Industry Oriented Curriculum

Exposure to Real-World Situations through Live-Projects



### Adaptable Timetables

Flexibility and Convenience to Learners in class-timing



### Highly Educated Mentors

Qualified Mentors with Real Industry Experience



## Module 1

### Introduction to Data Science

- ✓ What is Data Science
- ✓ What does Data Science involve?
- ✓ Era of Data Science
- ✓ Life Cycle of Data Science

## Module 2

### Environment for Data Science

- ✓ Install Python IDLE | IDE
- ✓ Python Download and Installation on Windows, Linux and Mac
- ✓ Execute the Script
- ✓ Interactive and Script Mode
- ✓ Python File Extensions
- ✓ Setting Path in Windows
- ✓ Python Comments

## Module 3

### Intro to Python

- ✓ What is Python?
- ✓ Why Python?
- ✓ How Python is used for Data Science?
- ✓ Advantages or Disadvantages of Python
- ✓ Run the Basic Program of Python
- ✓ How to take an input from user?
- ✓ Data Types: String, Numbers, Tuples, Lists, Dictionaries
- ✓ Conditional Statements
- ✓ Control Flow Statements
- ✓ Syntax of function definition
- ✓ Modules: What is a module?
- ✓ Interpreted languages

## Module 4

### Data Analysis with “NumPy”

- ✓ Introduction to NumPy
- ✓ NumPy Arrays
- ✓ Quick Note on Array Indexing
- ✓ NumPy Array Indexing and Operations
- ✓ Exercise(s)

## Module 5

### Data Analysis with “Pandas”

- ✓ Introduction to Pandas
- ✓ Series
- ✓ Introduction of “ Data Frames ”
- ✓ Organizing “ Data Frames ”
- ✓ Set up “ Data Frames ”
- ✓ Missing Data
- ✓ Group by
- ✓ Merging Joining and Concatenating
- ✓ Operations
- ✓ Data Input and Output
- ✓ Exercise(s)

## Module 6

### Data Visualization with “Matplotlib”

- ✓ Introduction to Matplotlib
- ✓ Matplotlib vs pyplot vs and pylab
- ✓ Data For Matplotlib Plots
- ✓ Create Your Plot
- ✓ Play with Subplot
- ✓ add\_axes() and add\_subplot()
- ✓ Work with Size of Figures \Plotting Routines
- ✓ Customizing PyPlot
- ✓ Showing, Saving And Closing Your Plot
- ✓ Exercise(s)

## Module 7

### Data Visualization with “Seaborn”

- ✓ Introduction to Seaborn
- ✓ Distribution Plots
- ✓ Categorical Plots
- ✓ Matrix Plots
- ✓ Regression Plots
- ✓ Grids: Style and Color
- ✓ Exercise(s)

## Module 8

### Introduction to Machine Learning

- ✓ Introduction to Machine Learning
- ✓ Machine Learning with Python
- ✓ Supervised and UnSupervised Machine Learning
- ✓ Exercise(s)



## Module 9

### Linear Regression

- ✓ Linear Regression Theory
- ✓ Model selection Updates for SciKit Learn
- ✓ Linear Regression with Python – Part 1 Introduction
- ✓ Linear Regression with Python – Part 2 Introduction
- ✓ Linear Regression Project Overview and Project Solution
- ✓ Exercise(s)

## Module 10

### Logistic Regression

- ✓ Logistic Regression Theory
- ✓ Logistic Regression with Python – Part 1 Logistics
- ✓ Linear Regression with Python – Part 2 Regression
- ✓ Linear Regression with Python – Part 3 Conclusion
- ✓ Logistic Regression Project Overview and Project Solution
- ✓ Exercise(s)

## Module 11

### K Nearest Neighbours

- ✓ K Nearest Neighbours Theory
- ✓ K Nearest Neighbours with Python
- ✓ K Nearest Neighbours Project Overview and Project Solution
- ✓ Exercise(s)

## Module 12

### Data Analysis with “NumPy”

- ✓ Introduction to Tree Methods
- ✓ Decision Trees and Random Forest with Python
- ✓ Decision Trees and Random Forest Project Overview
- ✓ Decision Trees and Random Forest Solutions Part 1
- ✓ Decision Trees and Random Forest Solutions Part 2
- ✓ Exercise(s)

## Module 13

### Support Vector Machines

- ✓ SVM Theory
- ✓ Support Vector Machines with Python
- ✓ Support Vector Machines Project Overview
- ✓ Exercise(s)

## Module 14

### K mean Clustering

- ✓ K Means Clustering Theory
- ✓ K Means with Python
- ✓ K Means Project Overview
- ✓ Exercise(s)

## Module 14

### Deploy A Project

# Hiring Companies





# Certificate



## Certificate of Completion

This is to Certify that

*Your Name*

for completing the Industrial Oriented Training in

**“Introduction To Data Science”**

at Prerogative Group from 04/March/2023 to 04/March/2023.

Certificate No.

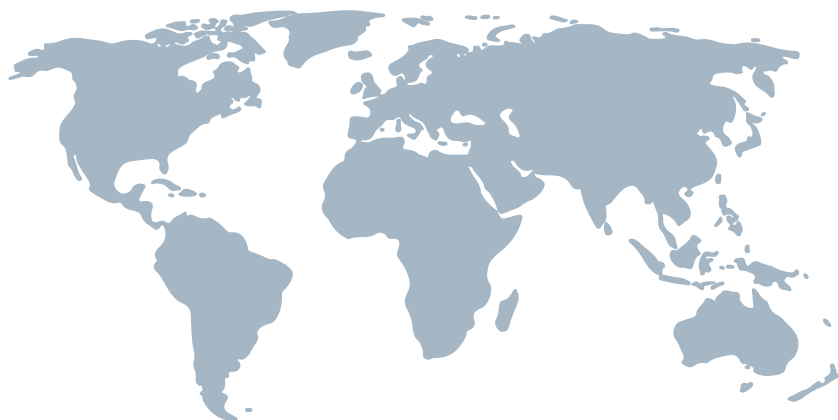
Date of Issue

Signature



*Empowering Innovation*

This Data Science Internship Certification Program has been designed by top-Industry Professionals from leading organizations. This course will get you ample opportunities to work through live-practical projects and hands-on experience. After the successful completion of this Data Science Training from Prerogative, you'll receive an industry-recognized Internship Certification which has a lifetime validity.



## Contact Us :



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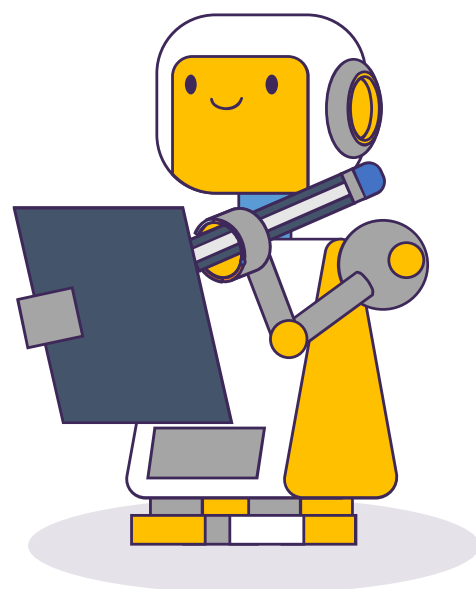
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