TRAINING AND INTERNSHIP SYLLABUS
Data Scientist

OVERVIEW

Data Analysis is one of the most in-demand jobs and one of the highly paid job positions in 2021. Learn this highly in-demand skill with our "Training and Internship Programme". Learn "Python" (one of the most famous programming languages of 2021), and how to use it to analyze data.

Gets hands-on experience on those skills by coding 15+ real-world projects.

Prerequisite Knowledge: You are not supposed to have any prior programming knowledge. However, you are expected to know the basics of differential calculus.

WHY JOIN US?

Complementary videos on Programming in C++ and Data Structure and Algorithms

Competitive Programming practice questions on a daily basis

2-hour LIVE Classes 5-days a week

Recordings available of LIVE classes

2-hour LIVE Doubt Sessions 5-days a week

Interview Preparation

Certification and Letter of Recommendation

15+ Hands-on projects

Instructor from top MNCs

DATA STRUCTURES AND ALGORITHMS

You will be taught how to program in C++ (a high-performance programming language) and gain knowledge of different data structures and algorithms that can be implemented to solve an open-ended problem.

Topics Included

Introduction to Programming in C++ | Mathematics | BitManipulation | Recursion | Arrays | Searching | Sorting | Matrix | Hashing | Strings | Linked Lists | Stack | Queue | Deque | Trees and BST | Heap | Graph | Greedy Algorithms | BackTracking | Dynamic Programming | Trie | Segment and Binary Indexed Trees | Disjoint Sets

INTRODUCTION TO PYTHON

You will learn about IDEs to code in python, and how to program in Python. Python is one of the preferred languages for data analysis. All the basics of python will be covered that are needed to get started with Data Analysis.

Topics Included

Data Types and Operators | Control Flow | Scripting | Object-Oriented Programming in Python

PROJECTS

SECRET MESSAGE
In this project you will create a program that will take the names of the files and decrypts the secret message in the file.

TAKE A BREAK
Create a python script that schedules breaks throughout the day to remind the user to take a break from time to time.

MUSIC WEBSITE
Create your own Music Player Website using Python as the backend.

STATISTICS FOR DATA ANALYSIS

In this part, we will be covering the use of descriptive statistics. This will give the readers a good intuition for the data and use statistical inference to draw a conclusion based on the results.

Topics Included

Constructs | Population vs Sample | Correlation vs Causation | Hypotheses | Experimentation | Visualizing Data | Central Tendency | Variability | Standardizing | Normal and Sampling Distribution | Estimating | Hypothesis Testing | T-Tests

PROJECTS

ANALYZE WALMART STORE SALES

Here you will be applying all the concepts of statistics that you have learnt to analyse the Walmart Store Sales.

INTRODUCTION TO DATA ANALYSIS

Go through the entire data analysis process, starting by posing a question and finishing by sharing your findings.

Topics Included: Data Analysis Process | Python tools used for data analysis (in-depth Numpy and Pandas) | Data plotting (matplotlib and seaborn)

Projects:
- Analyze Android App Market on Google Play
- Uber Data Analysis Project

P R O J E C T S

ANALYZE ANDROID APP MARKET ON GOOGLE PLAY

In this project, you will be analyzing all the apps on the AppStore trying to understand which app ranks the best and why.

UBER DATA ANALYSIS PROJECT

Analyze and Visualize the User data directly from Uber. Understand and deliver the trends.

SQL FOR DATA ANALYSIS

Master SQL, the core language for Big Data analysis, and enable insight-driven decision-making and strategy for your business.

Topics Included: Basic SQL | SQL Join | Aggregations | Subqueries & Temporary Tables | SQL Data Cleaning | Window Functions | SQL Advanced JOINs | Performance Tuning | Accessing database using python

Projects:
- Analyse and understand SQL using the IMDb dataset

P R O J E C T S

SQL QUERY IMDb DATASET
We will query the IMDb Dataset using SQL queries and try to analyze the data using SQL.

DATA WRANGLING

Learn the data wrangling process of gathering, assessing, and cleaning data. Learn how to use Python to wrangle data programmatically and prepare it for deeper analysis.

Topics Included: Gathering Data | Assessing Data | Cleaning Data | Working with Tabular, CSV, Excel, and JSON data | Learn about HTML and XML | Use BeautifulSoup to scrape web pages | Data Quality

INTRO TO MACHINE LEARNING

Machine learning is one of the hottest topics and basic building blocks of artificial intelligence. You will learn mathematics, intuition, and code all the machine learning algorithms.

Topics Included

Simple, Multiple, and Polynomial Linear Regression | Support Vector Regression | Decision Tree Regression | Random Forest Regression | Logistic Regression | K-Nearest Neighbors | Support Vector Machine (SVM) | Kernel SVM | Naive Bayes | Decision Tree Classification | K-Means Clustering | Hierarchical Clustering | Apriori | Eclat | Upper Confidence Bound(UCB) | Thompson Sampling | Natural Language Processing (NLP)

PROJECTS

MARKET BASKET OPTIMIZATION

We will analyze the Market Basket to optimize how can we enable people to buy more things and raise their revenue.

MALL CUSTOMER SEGMENTATION

In this project, you will be segmenting the different customers in a mall according to their shopping cart.

P R O J E C T S

FACEBOOK ADS ANALYTICS

Analyze the Facebook campaigns of various companies to cluster different customers into categories.

TOP 50 STARTUP REVENUE

In this project, we will predict the net yearly revenue for a startup on the basis of all the financial data of that startup.

PROJECTS

PREDICT EMPLOYEE SALARY

In this project, we will predict the employee salary on the basis of their experience and skills.

INTRO TO DEEP LEARNING

Deep neural networks are the latest advancements in the field of Artificial Intelligence. We will learn mathematics, intuition, and code all the deep learning algorithms. We will introduce Keras, Tensorflow, Pytorch

Topics Included: Artificial Neural Nets (ANN) | Convolutional Neural Nets (CNN) | Recurrent Neural Nets (RNN) | Self Organizing Maps (SOMs) | Boltzmann MAchine | Autoencoders and GANs | Natural Language Processing (NLP)

PROJECTS ON DEEP LEARNING

ANNs:

- Wine Quality Test Project

OpenCV and CNNs:

- Emojify – Create your own emoji with Python
- Sign Language Recognition with Machine Learning

RNNs and NLP:

- Chatbot
- language translator
- Sentiment analysis

Auto-Encoders and GANs:

- Music Generation
- Sketch2Pix using Gans

P R O J E C T S

WINE QUALITY TEST

Here, we will analyze the Quality of the Wine using its chemical composition. We will take the help of ANN to predict the quality.

EMOJIFY

Convert Your images into Emojis using the help of OpenCV and Convolutional Neural Networks.

PROJECTS

SIGN OPERATED ALEXA

We will create a camera-operated Alexa that can use sign languages to recognize your commands.

JARVIS

We will create your first Chatbot Jarvis to help you in your daily life taking the help of Recurrent Neural Networks.

P R O J E C T S

LANGUAGE TRANSLATOR

We will make a translator that will translate our sentences from one language to another.

YOUTUBE SENTIMENT ANALYSIS

Here we will analyse the comments of a youtube video to find if the sentiment of the people is positive or negative on a particular topic.
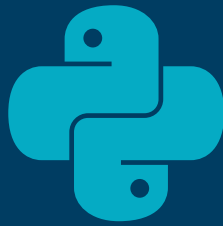
PROJECTS

MUSIC GENERATION

Here we will generate music using Generative Adversarial Networks and Deep Learning.

TECHNOLOGIES YOU WILL MASTER

Github

Python

Anaconda

Beautiful Soup

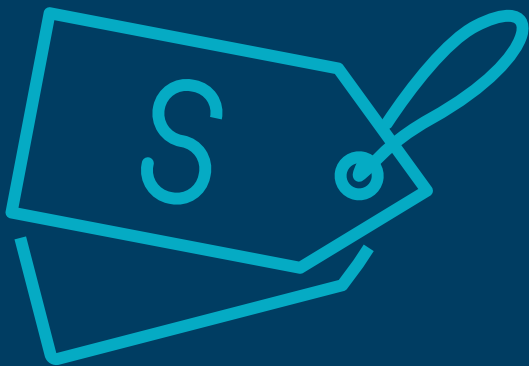Jupyter Notebook

Seaborn

Matplotlib

Statistics

C++

Pandas

SQL

Numpy

ABOUT THE COURSE

DURATION
2.5 Months

PRICE
INR 5000

LIMITED SEATS AVAILABLE