Online Live Training on

Python with

Data science Machine Learning

Course Introduction

- Introduction of Machine Learning and its application in Day to Day life

- Course overview and Dashboard description

Python Core

- Introduction to python and comparison with other programming language

- Installation of Anaconda Distribution and other python IDE

- Python Objects, Numbers & Booleans, Strings, Container objects, Mutability of objects.

- Operators - Arithmetic, Bitwise, comparison and Assignment operators, Operators Precedence and associativity.

- Conditions(Ifelse, if-elif)

- Loops(While ,For)

- Break and Continue statements

- Range functions

StringObjects and Collections

- String Object Basics

- String Methods

- Splitting and Joining Strings

- String format functions

- List Object Basics

- List Methods

- List as Stack and Queues

- List Comprehensions

Tuples,Set,Dictionaries& Functions

- Tuples,Sets,DictionaryObjectbasics,Dictionary Object methods,Dictionary ViewObjects.

- Functions Basics,Parameterpassing,Iterators

- Generator functions

- Lambda functions

- Map, Reduce & filter functions

OOPS Concepts &Working with Files

- OOPS Basic Concepts

- Creating Classes and Objects

- Inheritance & Multiple Inheritance

- Working with files

- Reading and Writing files

- Buflered read and BuPered write

- Other File methods

Modules ,Exception Handling & Database

Programming

- Using Standard Module
- Creating new modules
- Exceptions Handling with Try-except
- Creating ,Inserting and Retrieving Table
- Updating and Deleting the data.

Visualization

- Matplotlib
- Seaborn
- Plotly
- Cuflinks

RestAPI

- Flask Introduction
- Flask Application
- Open link Flask
- App Routing Flask
- URL Building Flask
- HTTP Methods Flask
- Templates Flask
- Django end to end

Database

- Mongo DB
- SQL lite

- Python SQL

Python project

- Web crawlers for image data sentiment analysis and product review sentiment analysis

- Integeration with web portal

- Integeraton with rest API ,web portal and mongo db on Azure

- Deployment on web portal on Azure

- Text mining

- Social media data churn

Exploratory Data Analysis

- Feature Engineering and Feature Selection

- Building Tuning and Deploying Models

- Analyzing Bike Sharing Trends

- Analyzing Movie Reviews Sentiment

- Customer Segmentation and Elective Cross Selling

- Analyzing Wine Types and Quality

- Analyzing Music Trends and Recommendations

- Forecasting Stock and Commodity Prices

Statistics

- Descriptive Statistics

- Sample vs Population Statistics

- Random Variables

- Probability Distribution function

- Expected value

- Binomial Distribution

- Normal Disrtributions

- Z-score

- Central limit Theorem

- Hypothesis testing

- Z-Stats vs T-stats

- Type 1 & Type 2 error

- Confidence Interval

- Chi Square test

- ANOVA test

- F-Stats

Machine Learning -1

- Introduction

- Supervised, Unsupervised, Semi-supervised & Reinforcement

- Train, Test & Validation Split

- Performance

- Overfitting & Underfitting

- OLS

- Linear Regression

- Assumptions

- R-square & adjusted R-square

- Intro to Scikit learn

- Training Methodology

- Hands on Linear Regression

- Ridge Regression

- Logistics Regression

- Precision Recall

- ROC-curve

- F-Score

Machine Learning -2

- Decision Tree

- Cross Validation

- Bias vs Variance

- Ensemble Approach

- Bagging & Boosting

- Randon Forest

- Variable Importance

Machine Learning -3

- XGBoost

- Hands on XGBoost

- K Nearest Neighbour

- Lazy learners

- Curse of Dimensionality

- KNN Issues

- Hierarchical Clustering

- K-Means

- Performance Measurement

- Principal Component Analysis

- Dimensionality Reduction

- Factor Analysis

Machine Learning -4

- SVR

- SVM

- Polynomial Regression

- Ada Boost

- Gradient Boost

- Gaussian Mixture

- Anamoly Detection

- Novelty Detection Algorithm

- Stacking

- K-NN Regressor

- Decision Tree Regressor

- DBSCAN

Natural Language Processing

- Text Ananlytics

- Tokenizing & Chunking

- Document term Matrix

- TFIDF

- Hands on Sentiment Analysis

Chatbot Project

- Chatbot using Microsoft Luis

- Chatbot using google Dialog flow

- Chatbot using Amazon lex

- Chatbot using Rasa NLU

- Deployemnt of Chatbot with Web , Telegram , Whatsapp,Skype

Machine Learning Project

- Healthcare analytics prediction of medicines based on FIT BIT Band

- Revenue forecasting for startups

- Prediction of order cancellation at the time of ordering inventories

- Anamoly detection in inventory packaged material

- Fault detection in wafferes based on sensor data

- Demand forecasting for FMCG product

- Threat identification in security system

- Defect detection in vehicle engine

- Food price forecasting with zomato dataset

Deployment

- Deployment of all the project In cloud foundary , AWS ,AZURE and google cloud platform.

- Expose API to web browser and mobile application

- Retraining approach of Machine learning model

- Devops infrastructure for machine learning model

- Database integration and scheduling of machine learning model and retraining.

- Custom machine learning training approach

- AUTO ML

- Discussion on infra cost and Data volume

- Prediction based on Streaming data

Extra session

- Discussion on project explanation in interview

- Data scientist roles and responsibilities

- Data scientist day to day work

- Companies which hire a data scientist

- Resume discussion with our team one to one

Interview prepration

- End to End Scenario based Interview preparation for every individual

Resume Discussion

- One to One resume Discussion with project , technology and Experience.

- Mock interview for every students multiple rounds