

## Data Science Training Course Content

Course Duration – 70-75 Hrs., 9-10 Weeks

### Course Information

#### Batch Options

Weekday Batch  
Mon - Fri - 1.5 Hr./Day

#### About the Trainer

Industry Expert Trainer with 15+ Years  
Real Time Work Experience at Top US  
Based Product and Consulting Firms

#### Contact Us

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### Introduction To Data Science Training

#### Data Science

**Data scientist** creates programming code and combines it with statistical knowledge to create insights from data.

Become a **Data Scientist** by working on **real world case studies** and **projects** through **Online Data Science** training course offered by the **Unogeeks** (Rated as **Top Data Science Training Institute** in the market)

#### What you'll learn

- Python with Data Science
- Machine Learning Supervised Learning Models
- Machine Learning Unsupervised Learning Models
- Deep Learning - ANN, CNN, RNN, Transfer Learning
- Machine Learning Models deployment using Flask
- Natural Language Processing
- Data Science at Scale with TensorFlow
- Resume & Interview preparation and Job Assistance

## Course Content

### Module 1: Introduction to Data Science & ML

- Introduction to Data Science
- What does Data Science involve?
- Data Science history
- Life cycle of Data Science
- Overview of Data Science Tools
- Machine Learning usage in Data Science

### Module 2: Python Basics for Data Science & ML

- Overview of Python
- Different Applications where Python is Used
- Python Scripts execution
- Basics of Python Programming
- Flow Control in Python
- Values, Types, Variables
- Operands and Expressions
- Conditional Statements
- **Loops in Python**

### Module 3: Linear Algebra and Advanced Statistics

- Descriptive Statistics
- Probability
- Inferential Statistics

## Module 4: Data Analysis in Data Science

- Data Handling with Numpy
- Data Manipulation Using Pandas
- Data Pre-processing
- Feature Engineering
- Data Visualization using Matplotlib , Seaborn

## Module 5: Introduction to Machine Learning Models

- Introduction to Machine Learning
- Types of ML models
- Supervised & Unsupervised Learning
- Performance Metrics

## Module 6: Machine Learning Supervised Models - Part 1

- Introduction to Machine Learning Supervised Models
- Regression Models
- Master Linear Regression Model
- Understand Multi Linear Regression Model
- Polynomial Regression Model

## Module 7: Machine Learning Supervised Models - Part 2

- Classification Models and use cases?
- Tree Based Models
- Ensemble Methods
- Bagging and Boosting
- Over fitting and Under fitting
- Evaluation Metrics

## Module 8: Machine Learning Supervised Models - Part 3

- Introduction to Naive Bayes?
- What is Naive Bayes?
- How Naive Bayes works?
- Implementing Naive Bayes Classifier
- What is a Support Vector Machine?
- Illustrate how Support Vector Machine works
- Hyperparameter Optimization
- Grid Search vs. Random Search
- Implementation of Support Vector Machine for Classification

## Module 9: Machine Learning Unsupervised Learning

- What is Clustering & its Use Cases?
- What is K-means Clustering?
- How does the K-means algorithm work?
- How to do optimal clustering
- What is DBSCAN Clustering?
- What is Hierarchical Clustering?
- How does Hierarchical Clustering work?

## Module 10: Deep Learning Using TensorFlow

- Artificial Intelligence Basics
- Introduction to Neural Networks
- Activation Functions
- Introduction to Tensor Flow

## Module 11: Deep Learning - Part 2

- ANN
- Sequential Neural Networks (RNNs, LSTMs, GRUs)
- Convolution Neural Networks
- Hyper Parameter Tuning in Neural Networks
- Transfer Learning

## Module 12: Natural Language Processing

- Text Mining , Cleaning, and Pre-processing using Regex.
- Text Normalization Techniques
- Entity Recognition, Next Word Prediction
- Static Word Embedding Techniques
- Dynamic Word Embedding Techniques
- Topic Modelling
- Text classification, NLTK, sentiment analysis, etc.
- Transformer Based Models
- BERT,BART,ALBERT,DISTILBERT

## Module 13: Deploying Machine Learning Models

- Machine Learning Models deployment overview
- What is Flask API
- Deploying Machine Learning Models with Flask API
- Jupyter Notebook

## Module 14: Data Science Capstone Project

## **Module 15: Data Science Additional Real Time Projects/Business Case Studies**

- Customer Review Classification Using LSTMs, GRUs
- Customer Churn Prediction (Telecom)
- Image Classification Using Deep Learning Models
- Multi Class Ticket Classification Used Transformer Based Models.
- Loan Defaulter Prediction using Ensembling Techniques

## **Module 16: Resume Preparation, Interview and Job Assistance**

- Prepare Crisp Resume as Data Scientist
- Discuss common interview questions in Data Science
- Explain students what jobs they should target and how