

# **Data Science Training Course Content**

Course Duration – 45-50 Hrs., 7-8 Weeks

#### **Course Information**

Batch Options	About the Trainer	Contact Us	
Weekday Batch Mon - Fri - 1.5 Hr./Day	Industry Expert Trainer with 15+ Years	Mobile:	+91 73960 33555
	Real Time Work Experience at Top US	WhatsApp:	+91 73960 33555
	Based Product and Consulting Firms	Mail:	Prasad@unogeeks.com
		Website:	Unogeeks.com

## 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: 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