









# Data Science Training Course



## About IntelliPaat


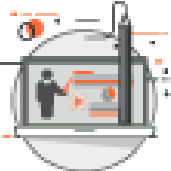
IntelliPaat is a fast-growing professional training provider that is offering training in over 150 most sought-after tools and technologies. We have a learner base of 600,000 in over 32 countries and growing. For job assistance and placement we have direct tie-ups with 80+ MNCs.

### Key Features of IntelliPaat Training:

 <b>Instructor Led Training</b> 40 Hrs of highly interactive instructor led training	 <b>Self-Paced Training</b> 28 Hrs of Self-Paced session with Lifetime access	 <b>Exercise and project work</b> 56 Hrs of real-time projects after every module	 <b>Lifetime Access</b> Lifetime access and free upgrade to latest version
 <b>Support</b> Lifetime 24*7 technical support and query resolution	 <b>Get Certified</b> Get global industry recognized certifications	 <b>Job Assistance</b> Job assistance through 80+ corporate tie-ups	 <b>Flexi Scheduling</b> Attend multiple batches for lifetime & stay updated.

## About the Course

This is a complete Data Science Bootcamp specialization training course from IntelliPaat that provides you with detailed learning in data science, data analytics, project life cycle, data acquisition, analysis, statistical methods and machine learning. You will gain expertise to deploy Recommenders using R programming, data analysis, data transformation, experimentation, and evaluation.

 <b>Instructor Led</b> <b>Duration – 40 Hrs</b> <b>Weekend Batch –3 Hrs/Session</b>	 <b>Self Paced</b> <b>Duration – 28 Hrs</b>
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## Why take this Course?

There is a serious shortage of Data Scientists and this is a major concern for Top MNCs around the world. All this means the major corporations are ready to pay top dollar salaries for professionals with the right Data Science skills. This Data Science Course equips with all the latest technologies in Big Data, analytics, and R programming. Thus you can easily take your career to the next level after completion of this Data Science Course.

- ❖ Data Scientist is the best job of the 21st century - Harvard Business Review
- ❖ Global Big Data market to reach \$122B in revenue by 2025 – Frost & Sullivan
- ❖ The US alone could face a shortage of 1.4 -1.9 million Big Data Analysts by 2018 – Mckinsey

## Course Content

Module /Topic
<b>Introduction to Data Science and Statistical Analytics</b> <ul style="list-style-type: none"><li>❖ Introduction to Data Science</li><li>❖ Use cases</li><li>❖ The need for Business Analytics</li><li>❖ Data Science Life Cycle</li><li>❖ Different tools available for Data Science</li></ul>
<b>Introduction to R</b> <ul style="list-style-type: none"><li>❖ Installing R and R-Studio</li><li>❖ R packages and R Operators</li><li>❖ if statements and loops (for, while, repeat, break, next), switch case</li></ul>
<b>Data Exploration, Data Wrangling, and R Data Structure</b> <ul style="list-style-type: none"><li>❖ Importing and Exporting data from an external source</li><li>❖ Data exploratory analysis</li><li>❖ R Data Structure (Vector, Scalar, Matrices, Array, Data frame, List)</li><li>❖ Functions, Apply Functions</li></ul>
<b>Data Visualization</b>

- ❖ Bar Graph (Simple, Grouped, Stacked)
- ❖ Histogram
- ❖ Pie Chart, Line Chart, Box (Whisker) Plot, Scatter Plot
- ❖ Correlogram

## Introduction to Statistics

- ❖ Terminologies of Statistics
- ❖ Measures of Centers, Measures of Spread
- ❖ Probability
- ❖ Normal Distribution
- ❖ Binary Distribution
- ❖ Hypothesis Testing
- ❖ Chi-Square Test
- ❖ ANOVA

## Predictive Modeling – 1 ( Linear Regression)

- ❖ Supervised Learning – Linear Regression, Bivariate Regression, Multiple Regression Analysis, Correlation ( Positive, negative and neutral)
- ❖ Industrial Case Study
- ❖ Machine Learning Use-Cases
- ❖ Machine Learning Process Flow
- ❖ Machine Learning Categories

## Predictive Modeling – 2 (Logistic Regression)

- ❖ Logistic Regression

## Decision Trees

- ❖ What are Classification and its use cases?
- ❖ What is Decision Tree?
- ❖ Algorithm for Decision Tree Induction
- ❖ Creating a Perfect Decision Tree
- ❖ Confusion Matrix

## Random Forest

- ❖ Random Forest
- ❖ What is Naive Bayes?

## Unsupervised learning

- ❖ What is Clustering & its Use Cases?
- ❖ What is K-means Clustering?
- ❖ What is Canopy Clustering?
- ❖ What is Hierarchical Clustering?

## Association Analysis and Recommendation engine

- ❖ Market Basket Analysis (MBA)
- ❖ Association Rules
- ❖ Apriori Algorithm for MBA
- ❖ Introduction of Recommendation Engine
- ❖ Types of Recommendation – User-Based and Item-Based
- ❖ Recommendation Use-case

## Sentiment Analysis

- ❖ Introduction to Text Mining
- ❖ Introduction to Sentiment
- ❖ Setting up API Bridge, between R and Twitter Account
- ❖ Extracting Tweet from Twitter Acc
- ❖ Scoring the tweet

## Time Series

- ❖ What is Time Series data?
- ❖ Time Series variables
- ❖ Different components of Time Series data
- ❖ Visualize the data to identify Time Series Components
- ❖ Implement ARIMA model for forecasting
- ❖ Exponential smoothing models
- ❖ Identifying different time series scenario based on which different Exponential Smoothing model can be applied
- ❖ Implement respective ETS model for forecasting

## Project Work

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### **Project 1:** Cold Start Problem in Data Science

**Industry:** E-commerce

**Problem Statement:** how to build a recommender system without the historical data available

**Topics:** This project involves an understanding of the cold start problem associated with the recommender systems. You will gain hands-on experience in information filtering, working on systems with zero historical data to refer to, as in the case of launching a new product. You will gain proficiency in working with personalized applications like movies, books, songs, news and such other recommendations. This project includes the various ways of working with algorithms and deploying other data science techniques.

#### **Highlight:**

- ❖ Algorithms for Recommender
- ❖ Ways of Recommendation
- ❖ Types of Recommendation -Collaborative Filtering Based Recommendation, Content-Based Recommendation
- ❖ Complete mastery in working with the Cold Start Problem.

### **Project 2:** Recommendation for Movie, Summary

**Topics:** This is real world project that gives you hands-on experience in working with a movie recommender system. Depending on what movies are liked by a particular user, you will be in a position to provide data-driven recommendations. This project involves understanding recommender systems, information filtering, predicting 'rating', learning about user 'preference' and so on. You will exclusively work on data related to user details, movie details, and others. The main components of the project include the following:

- ❖ Recommendation for movie
- ❖ Two Types of Predictions – Rating Prediction, Item Prediction
- ❖ Important Approaches: Memory-Based and Model-Based
- ❖ Knowing User Based Methods in K-Nearest Neighbor
- ❖ Understanding Item Based Method
- ❖ Matrix Factorization
- ❖ Decomposition of Singular Value
- ❖ Data Science Project discussion
- ❖ Collaboration Filtering
- ❖ Business Variables Overview

# Data Science Training Course

**Project 3:** Making sense of customer online buying pattern

**Industry:** e-commerce

**Problem Statement:** An e-commerce company wants to know how to deploy targeted selling to its customers

**Description:** This Data Science project involves learning from the customer buying habits and selling them the products that they need. As part of the project, you will aggregate, cleanse, transform and load the data of customer buying history. Then you will deploy statistical analysis, predictive modeling and create profiles of customers to implement targeted selling to them.

**Highlights:**

- ❖ Decision Tree for classification of customers
- ❖ R computing for statistical analysis
- ❖ Techniques for predictive modeling.

**Project 4:** Fraud Detection in Banking System

**Industry:** Banking and Finance

**Problem Statement:** A major bank wants to deploy data science to detect fraudulent activities and take remedial actions before it is too late

**Description:** This data science project will help you understand how you can look for fraudulent activities in a banking ecosystem. You will work with banking transactional data, look for outliers in the data, classify this data based on various parameters, apply statistics and come up with inferences to look for rogue transactions and mitigate the risk before it is too late.

**Highlights:**

- ❖ Data aggregation and analysis
- ❖ K-Means Clustering using R program
- ❖ Visualizing the data for inferences

**Case Study**

**The Market Basket Analysis (MBA) case study**

This case study is associated with the modeling technique of Market Basket Analysis where you will learn about loading of data, various techniques for plotting the items and running the algorithms. It includes finding out what are the items that go hand in hand and hence can be clubbed together. This is used for various real-world scenarios like a supermarket shopping cart and so on.

## Intellipaate Job Assistance Program

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Intellipaate is offering comprehensive job assistance to all the learners who have successfully completed the training. A learner will be considered to have successfully completed the training if he/she finishes all the exercises, case studies, projects and gets a minimum of 60% marks in the Intellipaate qualifying exam.

Intellipaate has exclusive tie-ups with over 80 MNCs for placement. All the resumes of eligible candidates will be forwarded to the Intellipaate job assistance partners. Once there is a relevant opening in any of the companies, you will get a call directly for the job interview from that particular company.

### Frequently Asked Questions:

#### **Q 1. What is the criterion for availing the Intellipaate job assistance program?**

Ans. All Intellipaate learners who have successfully completed the training post, April 2017 are directly eligible for the Intellipaate job assistance program.

#### **Q 2. Which are the companies that I can get placed in?**

Ans. We have exclusive tie-ups with MNCs like **Ericsson, Cisco, Cognizant, Sony, Mu Sigma, Saint-Gobain, Standard Chartered, TCS, Genpact, Hexaware**, and more. So you have the opportunity to get placed in these top global companies.

#### **Q 3. Does Intellipaate help learners to crack the job interviews?**

Ans. Intellipaate has an exclusive section which includes the top interview questions asked in top MNCs for most of the technologies and tools for which we provide training. Other than that our support and technical team can also help you in this regard.

#### **Q 4. Do I need to have prior industry experience for getting an interview call?**

Ans. There is no need to have any prior industry experience for getting an interview call. In fact, the successful completion of the Intellipaate certification training is equivalent to six months of industry experience. This is definitely an added advantage when you are attending an interview.

**Q 5. What is the job location that I will get?**

Ans. Intellipaate will try to get you a job in your same location provided such a vacancy exists in that location.

**Q 6. Which is the domain that I will get placed in?**

Ans. Depending on the Intellipaate certification training you have successfully completed, you will be placed in the same domain.

**Q 7. Is there any fee for the Intellipaate placement assistance?**

Ans. Intellipaate does not charge any fees as part of the placement assistance program.

**Q 8. If I don't get a job in the first attempt, can I get another chance?**

Ans. Definitely, yes. Your resume will be in our database and we will circulate it to our MNC partners until you get a job. So there is no upper limit to the number of job interviews you can attend.

**Q 9. Does Intellipaate guarantee a job through its job assistance program?**

Ans. Intellipaate does not guarantee any job through the job assistance program. However, we will definitely offer you full assistance by circulating your resume among our affiliate partners.

**Q 10. What is the salary that I will be getting once I get the job?**

Ans. Your salary will be directly commensurate with your abilities and the prevailing industry standards.



## What makes us who we are?



*"I want to talk about the rich LMS that Intellipaate data science training offered. The extensive set of PPTs, PDFs, and other related Data Science course material were of the highest quality and due to this my learning with Intellipaate was excellent and I could clear the Cloud era Data Scientist certification in the first attempt."*

*-Shrevash Limbhetwala*



*"I had taken the data science master program which is a combo of SAS, R and Apache Mahout. Since there are so many technologies involved in the Data Science course, getting your query resolved at the right time becomes the most important aspect. But with Intellipaate there was no such problem as all my queries were resolved in less than 24 hours."*

*- Giri Karnal*



*"The Intellipaate data science certification training videos really made me excited about studying data science. They were so elaborate and so professionally created that I could learn data science from the comfort of my home thanks to those learner-friendly videos. I am grateful to Intellipaate. "*

*- Nitesh Kumar*