



# IGNITED MINDS

*unleash power of technology*

## Mastering DataScience/Machine Learning

### About Ignited Minds

IT Professionals with more than 15 years of Experience worked in highly reputed MNC across Europe, USA and APAC region. Proven track of experience in delivering End to End enterprises level solutions globally. Hands on Experience in cutting edge technologies such as **CRM platform, ERP Solutions, Cloud computing, full stack Development, Database Technologies, Data Analytics, Data Mining , Artificial Intelligence, Data Science, Machine Learning , automated testing and micro services based deployments.**

We stand out from others by taking care of Personal concealing to understand academic performance, initial screening, Aspirations, accessing individual strong / weak areas and customized curriculum fit for each individuals. Specially designed packages so that candidates can complete training in-time bound manner for immediate start of carrier and Upscaling to next level. So Candidates can start training with minimal investment. Personally crafted syllabus comprises of basic to advanced concepts along with hundreds of sample programs with real time examples.

### About Course

Data Science and Machine learning are the "**The sexiest job of the 21st century**" As the world entered the era of Digital platforms, Social media revolution, The Speed of data generation increased exponentially. When Big Data/Hadoop and other frameworks have successfully solved the problem of storage, the focus has shifted to the processing of this data. Data Science is the secret sauce here. **Data Science is the future of Artificial Intelligence.** In Simple Data Science is all about "To find patterns in data, and to use these patterns to understand the world, and make predictions about it". Therefore, it is very important to understand what is Data Science and how can it add value to your business.

### Curriculum

## **Introduction to R**

- Installing R
- Basic Operations In R
- Vectors, Factors, Matrices, Lists

- Loops & Conditional Statements
- Data Frames

## **PYTHON for Data Science**

### **Data Visualization in Python**

### **SQL**

- Basics Of Sql
- Functions
- Advanced Sql using Window functions

### **TABLEAU**

- Tableau Interface
- Connecting To Data And Basic Visualizations
- Dashboard

### **INTRO TO DATA SCIENCE**

- Intro To Data Science
- Data Mining
- Machine Learning
- Types Of Data Analytics
- Big Data
- Business Understanding

- Data Understanding
- Data Preparation
- Model Building
- Model Evaluation
- Model Deployment

### **Data Storage**

- Intro To Data Warehousing
- Defining Data Warehouse  
Dimension Modelling
- Designing A Data Warehouse

- Structure Of Data Warehouse
- Data Cubes
- Operations On Data Cube

### **Descriptive Statistics**

- Measures Of Central Tendency
- Spread Of The Data
- Association Between Variables

### **Inferential Statistics**

- Basics Of Probability
- Probability Distribution
- Sampling & Sampling Distribution

### **Hypothesis Testing**

- Concepts In Hypothesis Testing
- Setting Up Hypothesis Test
- When Not To Use Z-Test

### **Exploratory Data Analysis**

- Introduction To Eda
- Univariate Analysis
- Multivariate Analysis

### **Linear Regression**

- Simple Linear Regression
- Multiple Linear Regression

### **Supervised Classification 1**

- Intro To Logistic Regression
- Multivariate Logistic Regression
- Model Evaluation

## Supervised Classification 2

- Hyperplanes & Support Vector Machines

## Unsupervised Learning: Clustering

- Intro To Clustering
- K Means Algorithm
- K Means In R

- Hierarchical Clustering
- Hierarchical Clustering In R

## Model Selection

- Principles Of Model Selection
- Model Evaluation

## Time Series

- Intro To Time Series
- Working With Stationary Time Series
- End-To-End Analysis

## Decision Trees

- Intro To Decision Trees
- Algorithms For Decision Tree Construction
- Truncation & Pruning

## Neural Networks

- Structure Of Neural Networks
- Information Flow In Neural Networks
- Training A Neural Network

- Training In Batches
- Representation Learning
- Recurrent Neural Networks
- Neural Networks In R

## Ensembles

- Bagging & Boosting

## Spark

- Intro To Spark
- Data Analysis Using Spark

- Data Analysis Using Sql
- Machine Learning Using Spark

