



Data Science Master Program

About QuickXpert Infotech

QuickXpert Infotech provides professional training on some of the most updated, industry-designed certification & job-oriented training programs to both students & corporate from experts in both classroom & online training format. Our wide range of courses blended by our placement assistance process have helped our students from both IT & non-IT fields to make career in IT Industry.

Overall 30+ Courses - 700+ Companies - 1000s Trained!

Courses Offered - SAP, JAVA, Dot Net, Software Testing, Web Development, Oracle, Digital Marketing, Python, Data Science & A.I., Salesforce, Tableau, Power BI, Android, Hybrid Apps, R, Hadoop etc. please visit website for details.

Our Live Projects - BiodataKing, TeriMeriChoice, theVibrantBirdie etc.

About the Course

Background - Every Big Companies are sitting on huge amount of data which need to be analyzez to extract meaningful insights out of it which will eventually help in growth and expansion of company. So Here Data Scientist come in picture to perform data analysis. So Basically Data Science is a Umbrella term that houses multiple nodes like Data Analysis, Data Mining, Data Cleaning, Data Analytic, Data Visualization, Predictive Analysis etc.. Statistics, Machine Learning, Neural Networks, A.I. etc provides required implementations to implement Data Science in a Company. *Hence in this training program you will learn all above to become a Professional Data Scientist !*

Who Can Learn?

Fresher or Experienced Professionals looking to make career in Data Science or looking for alternate career opportunities

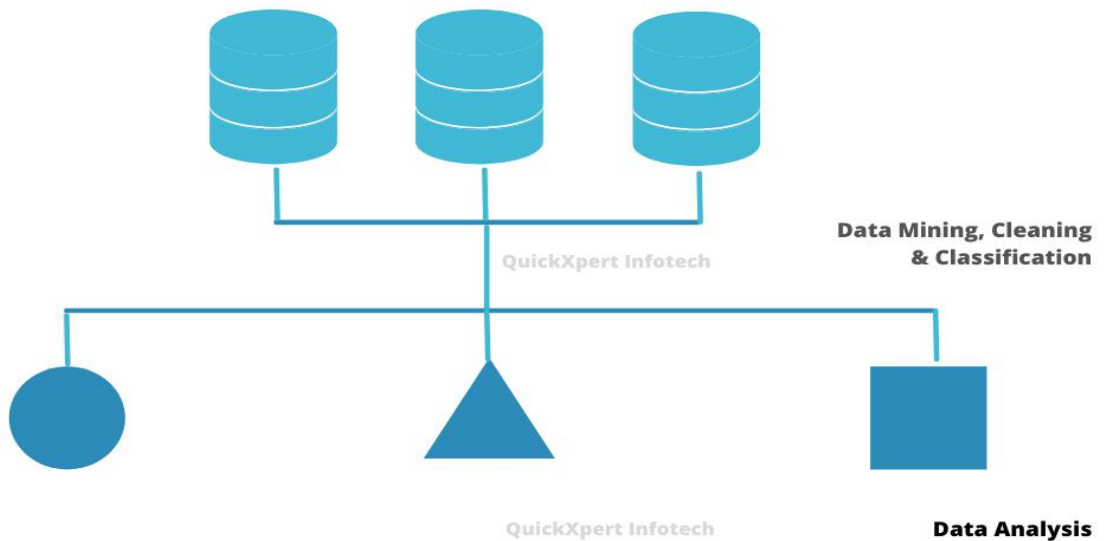
Any Pre-requisites?

None! As we teach from scratch to advanced modules.

Duration

3.5 to 4 months

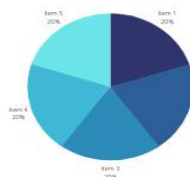
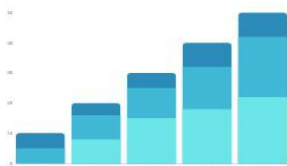
Data Science Application You will Learn & Implement



**DATA
SCIENCE**

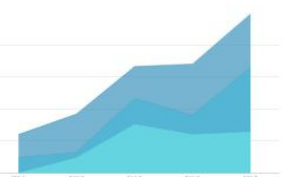
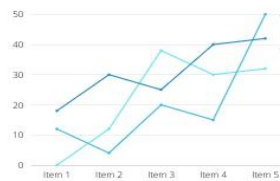


**Machine
Learning**



QuickXpert Infotech

**Visualization
& Data Analytics**

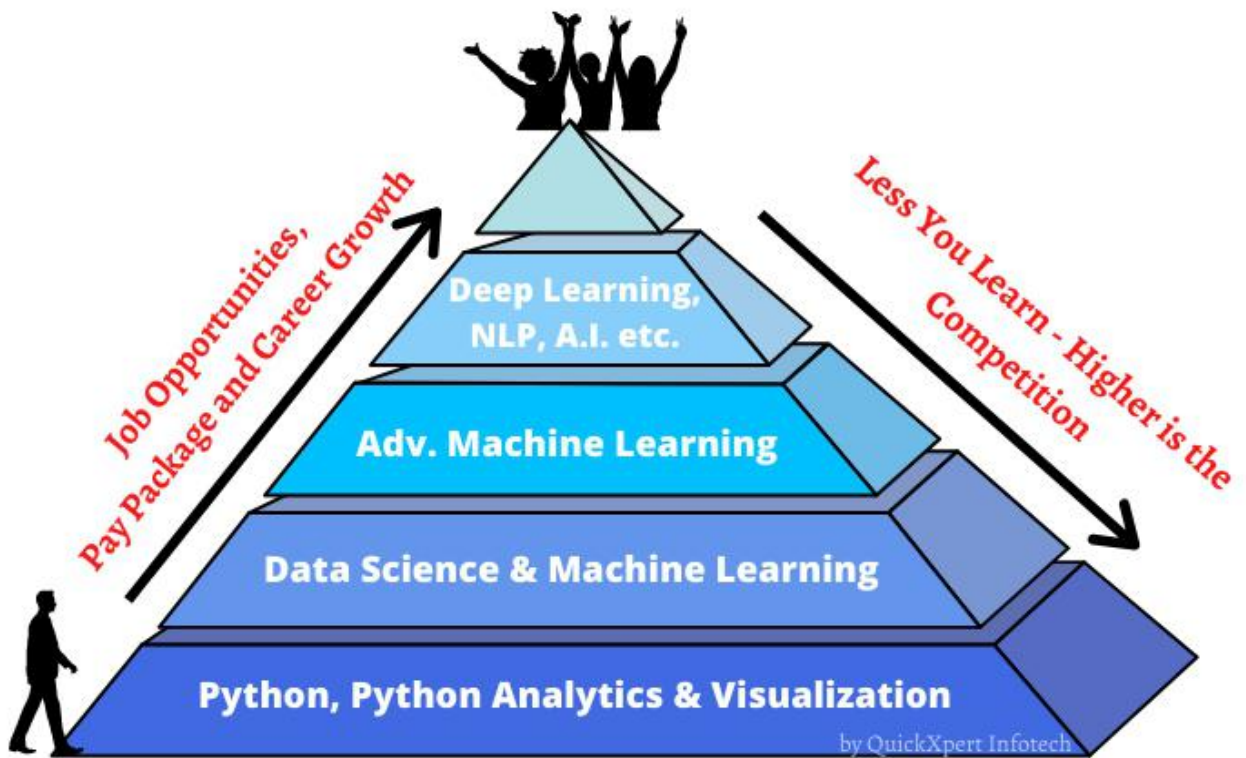


Tools You Will Learn



Job Opportunities

- ❖ As per Latest Industry & Job Trends. Can Check on [Naukri.com](https://www.naukri.com)



About Our Data Science Master Program

Syllabus

❖ Introduction

- Core Skills
- Industries & Domain
- Need
- Data Science Project Life Cycle
- Descriptive Analysis
- Diagnostic Analysis
- Predictive Analysis
- Prescriptive Analytics

Python

❖ Python Programming

- Installing Anaconda & Python v3 | Git Bash
- Basics - variables, constants etc.
- Python Programming - If..else, while loop, for loops etc.
- Logic Building Sessions
- Functions
- Classes
- OOPs
 - Inheritance
 - Encapsulation
 - Abstraction
 - Polymorphism
- Collections
 - List
 - Dictionary
 - Tuple
 - Array
 - Set
- Exception Handling
- SQL CRUD
 - Insert, Update, Delete, Select & Create

- SQL Database Integration
- File IO

❖ Data Analytics in Python

- Installing & Understanding Analytics Packages
- **NumPy** Array Operations
- **Pandas** Data Frame Operations
- Data Acquisition (Import & Export)
- Indexing
- Selection
- Sorting
- Filtering
- Group By
- Binning
- Concatenation
- Merge
- Append
- Drop

❖ Data Visualization in Python

- Installing Libraries
 - Matplotlib
 - Seaborn
- Charts & Plots
 - Histogram
 - Scatter Plots
 - Box Plots
 - Line Chart
 - Bar Chart
 - Pie Chart etc.
- Dashboards

Data Science & ML

❖ Statistics & Exploratory Data Analysis (EDA)

- Descriptive Statistics
- Measure of Central Tendency
- Dispersion
- Probability Distribution
- Correlation & Covariance
- Data Wrangling (Munging)
- Outliers | Missing Values
- Sparsity
- Inferential Statistics
- Random Sampling
- Hypothesis Testing

❖ Time Series Forecasting

- Time Series Data
- Trend Chart
- Stationarity
- Seasonality
- Moving Average
- Exponential Smoothing
- ARIMA
- GARCH
- Project/Case Study:
 - **Passenger Forecasting in Aviation Sector:**
Time series forecasting of monthly no. Of passengers that would board on flight using ARIMA/GARCH model.

❖ Supervised Learning

- Installation & Use of **Scikit-Learn** package
- Linear Regression
- Multi-Linear Regression
- Stepwise Regression
- Logistic Regression
- Sigmoid Function
- Entropy
- Information Gain
- Gini Index
- Decision Tree (CART)
- Ensemble Learning
- Random Forest
- xgBoost
- K-Nearest Neighbors (KNN)
- K Selection
- Distance Metrics
- Support Vector Machine (SVM)
- Kernel Functions
- Naive Bayes Classifier (NBC)
- Perceptron Learning
- Multi-Layer Perceptron (MLP)
- **Project/Case Study:**
 - **1. Real Estate Price Prediction:**
A Regression problem where set of input features(latitude,longitude,total rooms,total bedrooms,etc) are provided and the final price of the estate is predicted.
 - **2. Disease Detection in Healthcare domain:**
Segregation of diabetic and non diabetic patient using supervised Classification algorithm.

❖ Unsupervised Learning

- Hierarchical Clustering
- Dendrograms
- Centroid Based Clustering
- K Means Clustering

- Association Rule Mining
- Recommendation Engine
- **Project/Case Study:**
 - **1. Wholesale Customer Segmentation:**
Segregating the customers as per their expenditure using unsupervised clustering technique.
 - **2. Market Basket Analysis in Departmental Sector:**
Analyzing the frequently bought items using frequent pattern mining association rule.
 - **3. Movie Recommendation:**
Building a Movie recommendation Engine based on cosine similarity and natural language processing technique.

❖ Model Improvement & Validation

- Regularization
- Lasso
- Ridge
- ElasticNet
- Cross Validation
- Confusion Matrix
- ROC Curve
- Overfitting
- Underfitting Problems
- Precision vs Recall
- F1 Score - Type I vs Type II Error
- Ensemble Modeling (Bagging | Boosting | Stacking)
- Feature Selection & Feature Extraction
- Dimensionality Reduction
- Principal Component Analysis (PCA)
- Linear Discriminant Analysis (LDA)
- Scree Plot
- Elbow Method

Artificial Intelligence

❖ Introduction to AI & Neural Networks

- Deep Learning vs Machine Learning
- Tech Advancement
- All about Artificial Neural Networks (ANN)
- Understand How Deep Neural Network Works?
- Different variants of Gradient Descent
- Stochastic Gradient Descent vs Adam vs Others
- Hyper parameter Tuning
- Batch Size
- Learning Rate
- Momentum

❖ Deep Learning in Python

- Deep Learning packages in python
- Google **TensorFlow** Framework
- Model Building with default TFLearn API
- Keras Vs TFLearn Vs PyTorch APIs
- Model Building with **Keras & PyTorch** API Wrapper
- Activations | Optimizers | Losses
- Validation | Evaluation Metrics | Keras Backend
- Callbacks - Early Stopping, TensorBoard

❖ CNN - Convolutional Neural Networks

- Understanding Architecture & Visualizing a CNN
- Kernel
- Depth
- Pooling
- **Project/Case Study:**
 - **1. Image Recognition using MNIST Dataset:**
Building a Convolution Neural Network to recognize different types of

MNIST data.

- **2. Object Recognition using CIFAR-10 Dataset:**
Recognizing different types of objects in CIFAR-10 datasets using advance Convolution neural network technique.

❖ RNN - Recurrent Neural Networks

- Recurrent Neural Network Model
- Training RNNs with Back-propagation
- Long Short-Term Memory (LSTM)
- Gated Recurrent Unit (GRU)
- **Project/Case Study:**
 - **1. Chat Bot Building:**
Building a Chat Bot for any business/non-business related Query using recurrent neural network and word embedding technique.

❖ Natural Language Processing (NLP)

- Understanding Text Mining & Analytics
- Tokenization
- Stop Word Removal
- Stemming
- Lexical Analysis
- **Project/Case Study:**
 - **1. News Classification in Media Sector:**
Classification of various types of news genres using advance Deep learning techniques

❖ Tableau for Visualization

- Installation
- Charts & Dashboard (as required)
- Generation field
- Data Science Output Export on Tableau

Benefits to You

- ❖ **Training from Experts**
- ❖ **Installments Available**
- ❖ **Job Oriented Course**
- ❖ **80% Practicals** - Learn from Scratch
- ❖ **Professional Notes & Study Material Provided**
- ❖ **Certification Course** - You will get Course Completion ISO Certificate
- ❖ **Live Projects / Case Studies Covered**
- ❖ **Dedicated Placement Team**
 - Check Recent Placed Students on Site / our FB Page / our Google Page
- ❖ **100% Job Opportunities**
- ❖ **Personal Mentorship**
 - Limited Seats per batch for Personal Mentorship
- ❖ **Friendly Environment with Professional Grooming**
- ❖ **Interview Preparation, Resume Building etc.**

Please visit site for more info or reach us

Our 5 Steps Process for Success



Contact Us

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Inquire Now !

