



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 Experience with average IQ looking to make their career in Data Science, Data Analyst, Data Engineering or Field related to Data. None! As we teach from scratch to advanced modules.

Duration

Batches:

- **4 months** (Regular, weekdays / weekends)
- **2.5 months** (fast track, weekdays only)

Tools You Will Learn



Syllabus as mentioned below:

Syllabus

❖ Introduction to Data Science & Machine Learning

- Core Skills
- Industries & Domain
- Need
- Data Science Project (DSP) Life Cycle
- Descriptive | Diagnostic | Predictive | 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
- Collections
 - List
 - Dictionary
 - Tuple
 - Array
 - Set
- Exception Handling
- SQL
 - MySQL Installation
 - CRUD Operations – Select, Update, Read, Delete
 - Database Integration with Python
- File IO

Python Analytics & Visualization

❖ 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 Librarires
 - **Matplotlib**
 - **Seaborn**
- Charts & Plots
 - Histogram
 - Scatter Plots
 - Box Plots
 - Line Chart
 - Bar Chart
 - Pie Chart etc.
- Dashboards
- Project

Data Science & Machine Learning

❖ 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

❖ 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)

❖ Unsupervised Learning

- Hierarchical Clustering
- Dendrograms
- Centroid Based Clustering
- K Means Clustering
- Association Rule Mining
- Recommendation Engine

❖ 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)
- Multi class Classification
- Linear Discriminant Analysis (LDA)
- Scree Plot
- Elbow Method

❖ **When to Use Which Algorithms with Projects & Case Studies**

❖ **Integrating Python Analytics with Data Science**

❖ **Tableau Exports**

- Installation
- Exporting Data Science Output on Tableau

❖ **Projects / Case Studies**

- Real Estate Price Prediction
- Fraud Detection Problem in BFSI domain
- Disease Detection in Healthcare domain
- Market Segmentation in Advertising Sector
- Market Basket Analysis in Departmental Sector
- Passenger Forecasting in Aviation Sector
- News Classification in Media Sector

Deep Learning & A.I.

❖ 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 Pycharm APIs
- Model Building with **Keras** 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

❖ **RNN - Recurrent Neural Networks**

- Recurrent Neural Network Model
- Training RNNs with Back-propagation
- Long Short-Term Memory (LSTM)
- Gated Recurrent Unit (GRU)

❖ **Natural Language Processing (NLP)**

- Understanding Text Mining & Analytics
- Tokenization
- Stop Word Removal
- Stemming
- Lexical Analysis

❖ **Projects / Case Studies**

- Image Recognition using MNIST Dataset
- Object Recognition using CIFAR-10 Dataset
- Speech Recognition (Google Voice | Alexa | Siri)
- Sentiment Analysis and Word Clouds
- Chat Bot Building

❖ **End to End Project**

- Taking Data from various sources, processing via Data Science and exporting output on Tableau Dashboards

Our Benefits

- ❖ **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 from our Institute
- ❖ **Live Projects / Case Studies Covered**
- ❖ **Dedicated Placement Team**
- ❖ **100% Job Opportunities!**
 - Check recent placed students on site or our official google / fb page
- ❖ **Personal Mentorship**
 - Limited Seats per batch for Personal Mentorship
- ❖ **Friendly Environment with Professional Grooming**
- ❖ **Interview Preparation & Mock Interviews**
- ❖ **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 !

