

Data Science with Python Training

About Course

Learn <u>Data Science With Python Training in Bangalore</u> from the Certified Data Science Experts. Our Trainers are having More than 12+ Years of Experience in Data Science field. Besant Technologies Rated as Best Data Science with Python Training institute in Bangalore. Call 87672 60270 for Free Demo Classes on Data Science with Python Courses in Bangalore. Our Training Institute Location: Data Science with Python Courses in Bangalore is exclusively conducted in our all Branches (BTM Layout, Marathahalli, Jayanagar, Rajaji Nagar, Kalyan Nagar, Indira Nagar, HSR Layout, Koramangala and electronic city)

Data Science can be stated as a study of data and information. Data is analyzed in an elaborate manner and gradually transformed into a valuable resource that is further used for creating IT strategies. It can be further defined as a blend of data interference, algorithm development, and technology brought together to resolve complex issues. The process of mining a vast amount of structured and unstructured data to understand their respective patterns may help an organization in increasing its cost-effectiveness and efficiency. Further, it also helps in exploring various market opportunities and improving production output.

Course Syllabus

Module 1: Introduction to Data Science (Duration-1hr)

- What is Data Science?
- What is Machine Learning?
- What is Deep Learning?
- ➤ What is AI?
- Data Analytics & it's types

Module 2: Introduction to Python (Duration-1hr)

- What is Python?
- ➤ Why Python?
- Installing Python



- Python IDEs
- Jupyter Notebook Overview

Module 3: Python Basics (Duration-5hrs)

- Python Basic Data types
- Lists
- Slicing
- IF statements
- Loops
- Dictionaries
- Tuples
- **Functions**
- Array
- Selection by position & Labels

Module 4: Python Packages (Duration-2hrs) ➤ Pandas

- Numpy
- Sci-kit Learn
- Mat-plot library

Module 5: Importing data (Duration-1hr)

- Reading CSV files
- Saving in Python data
- Loading Python data objects
- Writing data to CSV file

Module 6: Manipulating Data (Duration-1hr)

- Selecting rows/observations
- Rounding Number
- Selecting columns/fields



- Merging data
- Data aggregation
- Data munging techniques

Module 7: Statistics Basics (Duration-11hrs)

- Central Tendency
 - Mean
 - Median
 - Mode
 - Skewness
 - **Normal Distribution**
- Probability Basics
 - What does it mean by probability?
 - Types of Probability
 - **ODDS Ratio?**
- Standard Deviation
- sant Technologies Data deviation & distribution
 - Variance
- Bias variance Tradeoff
 - Underfitting
 - Overfitting
- Distance metrics
 - **Euclidean Distance**
 - Manhattan Distance
- Outlier analysis
 - What is an Outlier?
 - Inter Quartile Range
 - Box & whisker plot
 - Upper Whisker
 - Lower Whisker



- catter plot
- Cook's Distance
- Missing Value treatments
 - What is an NA?
 - Central Imputation
 - o KNN imputation
 - Dummification
- Correlation
 - Pearson correlation
 - Positive & Negative correlation
- Error Metrics Duration-3hr
 - Classification
 - **Confusion Matrix**
 - Precision

 - Specificity Esant Technologies
 - F1 Score
- Regression
 - MSE
 - **RMSE**
 - MAPE

Module 8: Machine Learning

Module 9: Supervised Learning (Duration-6hrs)

- Linear Regression
 - **Linear Equation**
 - Slope
 - Intercept
 - R square value
- Logistic regression



- ODDS ratio
- Probability of success
- o Probability of failure
- o ROC curve
- Bias Variance Tradeoff

Module 10: Unsupervised Learning (Duration-4hrs)

- K-Means
- K-Means ++
- Hierarchical Clustering

Module 11: Other Machine Learning algorithms (Duration-10hrs)

- K Nearest Neighbour
- Naïve Bayes Classifier
- Decision Tree CART
- > Decision Tree C50 Sall Ecological Sandom Forest
- Random Forest

Course Reviews

Review 1:

I would like to highlight a few points about my association with Besant Technologies. The faculty members out here are super supportive. They make you understand a concept till they are convinced you have gotten a good grip over it. The second upside is definitely the amount of friendliness in their approach. I and my fellow mates always felt welcome whenever we had doubts. Thirdly, Besant offers extra support to students with a weaker understanding of the field of IT.

Review 2:

When I joined Besant Technologies, I didn't really expect a lot from it, to be extremely honest. But as time went by, I realised I got from Besant Technologies exactly what I wanted- a healthy environment for learning. Cordial teachers and their valuable lectures make understanding things so much easy. I thank Besant for having been so supportive throughout the course.