

Data Science 6 Months Training Program





Why Choose us



100% Placement Support

Training on Live Projects

Modern Facilities



 Pair Programming With Industry Experts





Month 1

Core Python concepts

Introduction - data types, operators, input & print functions, IDE's – IDLE & Jupyter Notebook



- **Control flow statements for, while, if, break**
- Functions Built-in and user defined
- Basics of Object oriented programming classes and objects, inheritance

Introduction to data analysis

- What is data analysis
- - Standard process of data analysis



Importance of data visualization

Month 2

Multidimensional array object & fast operations on arrays (Numpy)

Input/output

The N-dimensional array & array attributes

Indexing

- **Array creation routines**
- Array manipulation routines
- **Broadcasting & universal functions**

Linear algebra

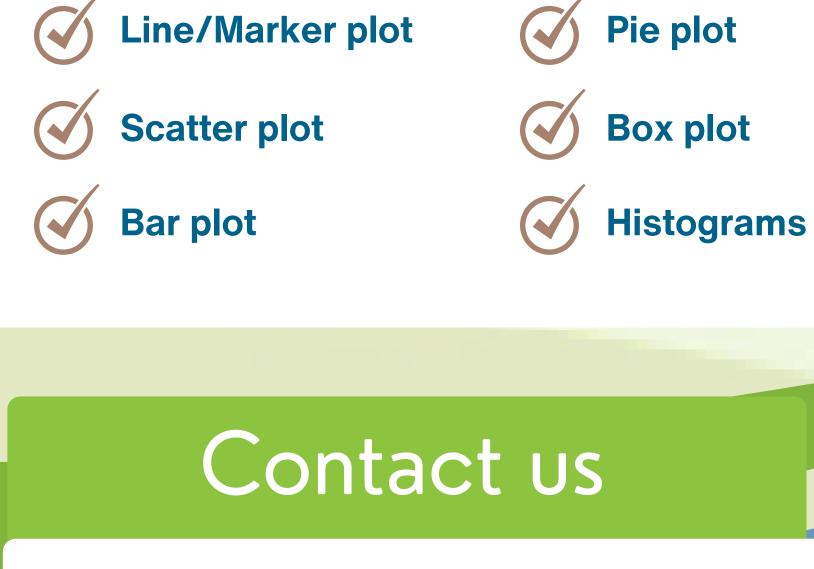


Fast, Flexible & Expressive Data Structure (Pandas) :

Input/output Pandas Series & Dataframe **Attributes** Indexing **Binary operator functions** (Function application, Groupby $(\checkmark$ **Computations, Descriptive stats Missing Data Handling**



Plotting with Matplotlib





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Combining/ comparing/joining/merging

Plotting

Month 3

Data Science – An introduction

What is Data Science

- What are Data & What is a data set
- **Data Science Ecosystem**
- **Standard data science task**

Future Trends

Multidimensional array object & fast operations on arrays (Numpy)

- **The N-dimensional array & array** attributes
- Indexing
 - Broadcasting & universal functions

Linear algebra

Random sampling



Fast, Flexible & Expressive Data Structure (Pandas) :

Input/ output

Pandas Series & Dataframe

Attributes



Indexing

Random sampling



Binary operator functions

Function application, Groupby

Computations, Descriptive stats



Reindexing, selection, label manipulation



Missing Data Handling













Month 4

Plotting in Python - Matplotlib

Pyplot API & Object oriented API

Line/Marker plot



Bar plot

Pie plot

Box plot



Introductory Statistics & probability

Measures of central tendency



Various Terms – IQR, Pearson Correlation coeff., Overfitting, Underfitting probability & bayes theorem



Introduction to Machine Learning



- Giving computers the ability to learn from data
- **Types of machine learning**
- Basic terminology and notations
- Roadmap for building machine learning systems

Supervised learning - Regression



Linear regression – Simple & Multiple linear regression, ridge & lasso regression

Building good training datasets – preprocessing

O Dealing with missing data

- Handling categorical data
- **V** train- test split
- Bring features to same scale
- Selecting meaningful features



Decision tree & random forest regressor









Month 5

Supervised learning – Classification

- - Logistic regression confusion matrix, precision and recall, ROC curve



- KNN classifier K nearest neighbour, picking suitable value of K
- **Support vector classifier Support vectors,** large margin & soft margin classifier



Decision tree – Gini impurity & Entropy



Unsupervised learning

K – means clustering

Dimensionality reduction & PCA



Month 6

Scrapy

- Scrapy project
 - **Command line tools**

Spiders

Selectors



Items

Basics of R Programming Introduction & Basic objects Reading and writing data Plotting **Working with functions**

Opencv





Concept of pixels, colour and channels **Coordinate system in opency Reading and writing images Drawing basic shapes**

Contact us



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