Data Science using Python & Jupyter

Duration-60Hrs

Course Fees-@500/Hrs OR 25000

Certification Availability-Yes

Course Content

Module-1		
1.1	Python Installation	Installation of Anaconda
		Concept of Environment and its creation
		updating Jypyter and installation of its dependencies
		introduction with Jypyter & its features
1.2	Python Libraries & Packages	Python Libraries
		Setup of plotting environment
		Introduction with Pandas
		Dataframe, Series object, List, Tuples, Dictionary
1.3	Data Loading in Jupyter & Pandas	Introduction with different kind of dataset file-CSV, JSON, XLS
		Loading data into jupyter
		Data Exploration, Data Slicing, Data Manupulation
		Data Cleaning, finding missing data, handling missing data
Module2	Data Cleaning & Advanced Machine Learning	Predictive Model
2.1		Determining a plan for Predictive Analytics
		Pre-processing Data for ML
		Data preprocessing tools & methods
Module-3	Classification Models	Introduction with Classification Algo.
3.1		Training two-feature classification model with Sklearn
3.2		plot_decesion region function
3.3		KNN of our model
3.4		Random Forest
Module-4	Evaluation of Model	K-fold cross validation and Validation Curve with sklearn
4.1		Dimensionality reduction technique
4.2		Training a predictive problem
Modeule-5	ML Algorithms	Introduction to Machine Learning Supervised Learning - Parametric Methods Maximum Likelihood Estimation - Evaluate the Estimators - Bias - Variance; Parametric Classification, Parametric Regression -Tuning Model Complexity and

		Regularization - Multivariate Methods; Clustering -Mixture Model -K-Means Clustering -Expectation- Maximization Algorithm - Applications l; Non - Parametric Methods - Applications; Decision Trees - Linear Discrimination; Linear Discriminants, Basis Functions - Two Classes - Multiple Classes - Pairwise Separation - Gradient Descent Parameter Learning - Logistic Discrimination; Multilayer Perceptrons; Kernel Methods - SVM; Hidden Markov Models
Project	Extra Fees to be added	