Data Science & Machine Learning

Dice Analytics Presents

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About the Course

In this hybrid training, you will learn about machine learning algorithms and its applications. Further, you will also be guided how to use the machine learning algorithms in Python. This course will cover data sets from multiple domains and how to apply Machine Learning algorithms to the available data, how to get value out of Machine Learning algorithms, and how to present the output of those algorithms.

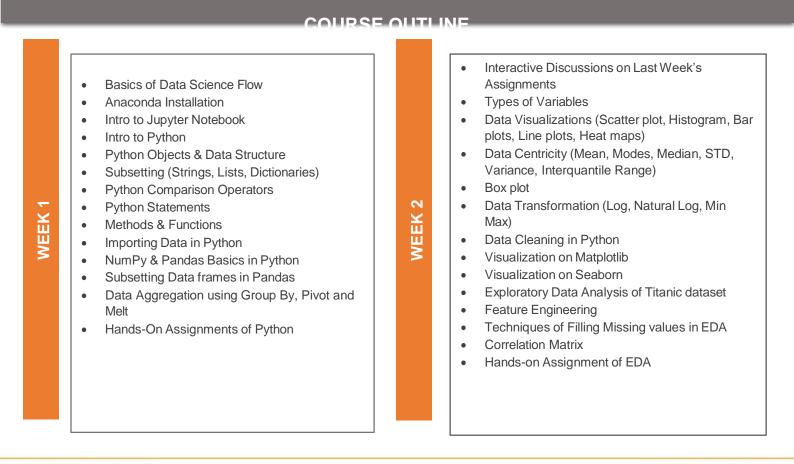
By the end of this training, you will have enough knowledge and hands-on expertise in Python to use and apply them in the real world around you. Also, you will be able to get prepared for certifications of Data Camp and Cognitive AI.

Who Should Attend?

- Graduate or Masters Students who want to start their career in the Data Science domain
- People who are working in the BI domain and want to advance their career in the field of Data Science.
- Executive who want to build a Data Science department in their start-ups/organizations

About the Instructors

- Mr. Ahsan Ijaz: Lead Data Scientist at THE VIEWLYTICS | Data Science Trainer at Dice Analytics.
- Hassan Aftab: Lead Data Scientist at Etisalat (e&), UAE



 Interactive Discussions on Last Week's Assignments What is Probability Conditional Probability (Disjoint Events + General Addition Rule). Dependence vs Independence Probability Trees & Bayesian Inference with their examples Machine Learning Basics Machine Learning Playground Supervised Learning Train Test Splittng Overfitting vs Underfitting Cross Validation using K-folds Linear Regression Gradient Descent, Ordinary Least Squares Project-1 Assigned to Students 	 Interactive Discussions on Project Multivariate Regression Residual Plots, R square, Adjusted R Square Polynomial Regression Model Complexity, Model Selection Lasso Regularization Ridge Regularization Classification Logistic Regression Confusion Matrix True Positive, True Negative, False Positive , False Negative Precision, Accuracy, Recall, F Measure ROC Curve, AUC, TPR, FPR Project-2 Assigned to Students
 Interactive Discussions on Project Decision Trees Information Gain, Gini Index, Chi Square Random Forest Grid Search CV of Random Forest Hyper- parameters What is Boosting What is Bagging AdaBoost on Python Multi-Classification and Analyzing its Confusion Matrix Unsupervised Learning Clustering K-Means algorithm Elbow Analysis, Internal Indexes, Silhouette Score Project-3 Assigned to Students 	 Interactive Discussions on Project External Indexes, Adjusted Rand Index Cluster Profiling using Radar Chart Feature Scaling DBSCAN Algorithm Cluster Validation using DBCV Hierarchical clustering Average vs Complete vs Ward linkage Dendrogram Creation and Reading clusters External Indexes, Adjusted Rand Index Hierarchical clustering Use Cases Association Rules Apriori Algorithm Support, Confidence, Lift, Leverage, Conviction
 Interactive Discussions on Project Visualizing Association Rules Network Graph Theory Social Network Analysis by Network Graph Dimensionality Reduction Concept Principal Component Analysis (PCA) Principal Vectors/Components Composite Features Maximal Variance Info Loss and Principal Component Analysis Image Classification using PCA Model Deployment Basics Flask App Introduction 	 Data Science Test Project & Presentation Self-learning Path Guidance
	• Python • Anaconda • Jupyter
Model Deployment on Flask App	Duration: 8 Weeks Contact Us: 051-8356065-6 Email: info@diceanalytics.pk

WEEK 3

WEEK 5

WEEK 7