

JUMP START YOUR CAREER WITH
INDUSTRY READY SKILLS

DATA SCIENCES

2 Months

(Program)

30 DAYS
TRAINING
PLUS
30 DAYS
INDUSTRY EXPERIENCE

FEE
Rs. 12,500
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COURSE CATALOGUE

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ABOUT TRAINER

Tayyab Tariq

Mr. Tayyab Tariq is the tech lead at Red Buffer, where he works with a team of tech enthusiasts to build world changing products with our partners all around the world.

Mr. Tayyab Tariq is a Stanford MS(CS) graduate with concentration in AI. He is interested in the application of AI systems in business intelligence and information extraction from media. He is also interested in exploring how such technology can be made easily accessible using the SaaS model.

Mr. Tayyab Tariq got his BS(CS) degree from the National University of Computer and Emerging Sciences (NUCES), Pakistan (2006-2010). He has also attended F. G. Sir Syed College, Rawalpindi (2004-2006) and PAEC Model College, Nilore, Islamabad (1994-2004).

SPECIALITIES

- Learning Super Fast,
- Artificial Intelligence,
- Machine Learning,
- Data Mining.



ABOUT DATA SCIENCES

Business intelligence (BI) is often described as

"The set of techniques and tools for the transformation of raw data into meaningful and useful information for business analysis purposes".

The term "Data Surfacing" is also more often associated with BI functionality. BI technologies are capable of handling large amounts of unstructured data to help identify, develop and otherwise create new strategic business opportunities.

The course gives an overview of the data, questions, and tools that data analysts and data scientists work with. There are two components to this course:

- 1 | The first is a conceptual introduction to the ideas behind turning data into actionable knowledge.
- 2 | The second is a practical introduction to the tools that will be used in the program

These techniques are typically applied before formal modeling commences and can help inform the development of more complex statistical models. Exploratory techniques are also important for eliminating or sharpening potential hypotheses about the world that can be addressed by the data. We will cover in detail the plotting systems in R as well as some of the basic principles of constructing data graphics. We will also cover some of the common multivariate statistical techniques used to visualize high-dimensional data.

COURSE MODULES

INTRODUCTION

- What is AI and ML
- AI as compared to Conventional Computing
- ML, AI, Data Science and Big Data
- Practical Scenarios: Smart Robots, Self Driving Cars and Genetic Engineering

DATA EXPLORATION & VISUALIZATION

- Variable Identification
- Missing Value Treatment
- Variable Transformation
- Common methods of Variable Transformation
- Correlation
- Histograms
- Density Plots
- Correlation Matrix Plot
- Scatterplot Matrix
- Correlation Matrix Plot

PREDICTIVE ANALYTICS, CLASSIFICATION & REGRESSION

- Linear Algebra and Problem Equations
- Extracting Predictor and Target Variables from Dataset
- Building Problem Equation
- What is Classification?
- Linear Classification
- Decision Trees
- Naive Bayes
- Conditional Probability
- Bayes' Rule
- Independence
- Linear Regression
- Logistic Regression
- Regularization
- Cost function for Logistic Regression
- Applications

EVALUATION AND TESTING

- Train/Test Split
- Accuracy
- Precision
- Recall
- Cross-Validation
- Bias/Variance Tradeoff
- Classification Metrics
- Regression Metrics

UNSUPERVISED LEARNING AND CLUSTERING

- Clustering
- K-Means Clustering
- Applications

NATURAL LANGUAGE PROCESSING AND TEXT ANALYTICS

- Unstructured/Raw Data
- Clensing: Stemming, Lemmatization, Stopwords Removal
- Vectorizers
- Count Vectorizer
- Hashing Vectorizer
- TF-IDF

RECOMMENDATION SYSTEMS

- Introduction
- Collaborative Recommendations
- Content-based Recommendations
- Text Analytics

NEURAL NETWORKS AND DEEP LEARNING

- Neural Networks Introduction
- Layers and Perceptrons
- Perceptron Learning Procedure
- Backpropagation
- Recurrent Neural Networks
- Introduction to Deep Learning
- Applications





JUNAID CHAUDHRY

VP HR; PSYCHOLOGIST/COUNSELLOR

Junaid Chaudhry is the Vice President of Human Resources and a Psychologist/Counsellor at Inductin and 360 Technologies. He studied Biology at Duke University (USA) and obtained his Master's Degree from Oklahoma (USA). Junaid leads the Inductin Interactive Assessment Program (Career Counselling Program), adapted from a U.S. Program. The Program helps individuals understand their interests, competencies, and motivations; and matches individuals with career

- **Interactive Assessment Program** (Career Counselling);
- **Stress Management** (Cognitive Behavioral Therapy);
- **Communication Skills;**
- **Leadership Skills;**
- **and others.**

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