Excellence Educational Academy
Alipore, Kolkata
*[Where **TALENT** is the keyword]*
<u>Sister Concern is</u>

e-DIGITAL LEARNING
AN INSTITUTE FOR MULTIDISCIPLINE TECHNICAL COACHING CLASSES & GUIDANCE
[Founded and Directed by a Renowned Academicians & Corporate Professionals]

Ref. No. :EEA/DSE/NON-IT/2023   **Date :21/01/2023**

CORPORATE JOB ORIENTED TRAINING (ONLINE / OFFLINE)
Data Science-IT Professional Course Curriculum for IT / Non-IT Participants

<u>Name of the Corporate Training Course:</u>   Data Science Enthusiast

Duration: 80 Hours [70 hours + 10 hours (Capstone Project)]
Delivery Mode: Virtual Instructor-led / Classroom-based
Prerequisites: High-school mathematics | Laptop/Desktop with internet connection
Tools: Jupyter Notebook / R Studio, Tableau
Python / R packages: NumPy, Pandas, Matplotlib, Seaborn, Scikit-Learn / dplyr, data.table, ggplot2, janitor, caret, mlr

1. **Basic Course in Mathematics & Applications [4]**
   a. Set Theory
   b. Logic
   c. Matrix Theory
   d. Graph Theory

2. **Basic Statistics & Probabilities [8]**
   a. Descriptive Statistics
   b. Measure of Central Tendency (Mean, Median, Mode)
   c. Measure of Variability (Range, S.D, Variance, Interquartile range)
   d. Correlation & Covariance
   e. Probabilities
   f. Distribution and Sampling
   g. Central Limit Theorem
   h. Inferential Statistics : Estimation & Hypothesis Testing

3. **Fundamental Concepts of Computer Systems & Computer Programming [6]**
   a. Introduction to Computer
   b. Basic Structure/Components & Functionalities of Computer Systems
   c. Why Computer?
   d. Computer Languages
   e. Concept of OS
   f. Basic Concepts of Procedural Programming Languages (PPL) with sample Program and Concept of OOPs.

4. **Introduction to Python [8]**
   a. Data Types, Variables, Operators
   b. Control Flow
   c. Looping
   d. Functions and Recursion
   e. Exception and File Handling
   f. Data Science Libraries – NumPy, Pandas, Matplotlib, Seaborn

5. **Artificial Intelligence & Machine Learning Fundamentals [14]**
   a. Introduction to AI & ML
   a. Connection between AI and ML
   b. Types of learning
   c. Applications of machine learning
   d. Python Programming for Machine Learning
   e. Regression vs Classification vs Clustering
   f. Supervised & Un-Supervised Learning
   g. Large Scale Data Visualizations

6. **Introduction to Data Science [8]**
   a. Organizational role of Data Science
   b. Knowledge Areas, Planning and Monitoring
   c. Business Understanding and Strategy Analysis

7. **SQL for Data Science [10]**
   a. Database Basics
   b. SQL Basics
   c. Advanced SQL

8. **Data Visualization Using Tableau/PowerBI [14]**
   a. Introducing Tableau/ PowerBI
   b. Loading different types of data in Tableau/ PowerBI
   c. Different types of charts in Tableau/ PowerBI
   d. Filters in Tableau / PowerBI
   e. Working with Geographical Locations and Maps
   f. Dashboard

1ST Floor, 9B, Chetla Road, P.O.- Alipore, P.S.- Chetla, KMC Ward No.- 82, Near Hyundai Show Room, Kolkata- 700027, WB, India.

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9. Capstone Project [10 Hours]

   a. Case Study: Marketing
   b. Case Study: Supply Chain Management
   c. Case Study: Finance Domain
   d. Case Study: Healthcare

Capstone Project [10 Hours]

A) Handwritten Digits Recognition with AI

AI Project Idea – Digits written by humans vary a lot in curves and sizes as they are hand-drawn and everyone's writing is not the same.
It is a great way to start artificial intelligence by building a handwritten digits recognition system that can identify the digit drawn by humans.

B) Cartoonify Image with Machine Learning

ML Project Idea: Transform images into its cartoon. Yes, the objective of this machine learning project is to CARTOONIFY the images.
Thus, you will build a python application that will transform an image into its cartoon using machine learning libraries.

About Course

- If You Want To Take This Course **Online** , The Course fees Will be **2500 rupee/month.**
- If You Want To Take This Course **Offline**, The Course fees Will be **3500 rupee/month.**
- <u>**Course Duration –**</u> **10 Months i.e.** **80 Hours [70 hours + 10 hours (Capstone Project)]**
- <u>**Payment -**</u> (Strictly in MONTHLY system) and ONE-month advance, which will be, adjust in the last month of the course.
- Small group of Study (At-Least **15 students** & At-most **30 students** in ONE group).
- The Classes Will be taken **1 Day/Week and 2.5 Hours /Day.**
- **On Successful Completion of the Course along with Hands-on Assessment, e-Certificate will be Awarded.**
- **After Completion of the Course, INTERNSHIP on the same Domain Technology will be provided for doing hands-on work on real-life Industrial Project followed by Job Assistance(Reference for up to 3 Interviews) in IT/SW Industry.**
- **Both Theoretical & Hands-on Training will be Provided by Highly Qualified & IT Experienced Senior Professionals those are fully settled in IT Industry since long and having Job Referral capacities.**

If you are really interested for building a Career with Excellent hi-end Hands-on Studies followed by IT Internship & Job in Data Science Technology Domain area in IT/SW Industry, then only Contact below mentioned contact details for Enrollment into the Course.

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