Diploma in Data Science

Get International Jobs

Who can do?

- The candidate who would like to pursue their career in the field of Data Scientist, Big Data Analytics
- Intermediate, University students and professionals Candidates
- Those who would like to enhanced their skills in the field of Data Science
- Professional can also Join
- People who are working in the same domain, they would also be joined for further knowledge and enhancement.
- Senior Managers, Programmers, Analyst and other professionals, who would like to enhanced their skills.

100,000+ Students have been Trained

since 1997

Invest in People the only Asset that Appreciates

Program is offered by

3D EDUCATORS - INT

22 Years of Excellence in Training & Development

🌐 www.3dedudcators.com
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Diploma in Data Science
Become a Data Scientist

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About the Program & Instructor

Data Science is the study of the generalizable extraction of knowledge from data. Being a data scientist requires an integrated skill set spanning mathematics, statistics, machine learning, databases and other branches of computer science along with a good understanding of the craft of problem formulation to engineer effective solutions. This course will introduce students to this rapidly growing field and equip them with some of its basic principles and tools as well as its general mindset. Students will learn concepts, techniques and tools they need to deal with various facets of data science practice, including data collection and integration, exploratory data analysis, predictive modeling, descriptive modeling, data product creation, evaluation, and effective communication. The focus in the treatment of these topics will be on breadth, rather than depth, and emphasis will be placed on the integration and synthesis of concepts and their application to solving problems. To make the learning contextual, real datasets from a variety of disciplines will be used.

Inauguration

The Training Program shall be inaugurated by a senior member of 3DEducators and President of 3D Group.

Program Structure

No of classes per week	02 - Class
Duration of each class	03 – Hour

Other Learning Activities For Each Module

Classroom Assignments	10
Presentations by Trainees	02
Case Studies	06
Project	01

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LEARNING OUTCOMES.

At the conclusion of the course, students should be able to:

- Describe what Data Science is and the skill sets needed to be a data scientist.
- Explain in basic terms what Statistical Inference means. Identify probability distributions commonly used as foundations for statistical modeling. Fit a model to data.
- Use python to carry out basic statistical modeling and analysis. Explain the significance of exploratory data analysis (EDA) in data science. Apply basic tools (plots, graphs, summary statistics) to carry out EDA. Describe the Data Science Process and how its components interact. Use APIs and other tools to scrape the Web and collect data.
- Apply EDA and the Data Science process in a case study.
- Apply basic machine learning algorithms (Linear Regression, k-Nearest Neighbors (k-NN), k-means, Naive Bayes) for predictive modeling. Explain why Linear Regression and k-NN are poor choices for Filtering Spam. Explain why Naive Bayes is a better alternative.
- Identify common approaches used for Feature Generation. Identify basic Feature Selection algorithms (Filters, Wrappers, Decision Trees, Random Forests) and use in applications.

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- Identify and explain fundamental mathematical and algorithmic ingredients that constitute a Recommendation Engine (dimensionality reduction, singular value decomposition, principal component analysis).

- Create effective visualization of given data (to communicate or persuade).

- Work effectively (and synergically) in teams on data science projects.

- Reason around ethical and privacy issues in data science conduct and apply ethical practices.

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Program Syllabus

The world is changing and due to this phenomenon the technology is emerging with new and dynamic dimensions; Data Sciences is one it, where you can understand that what the data is talking about and what sort of data can help you to get the right directions & decisions.

Today's World in now Data World, once you have the sufficient & reliable data with you, you can be No. 1 or you will grab all the market and find actual opportunities & gaps by the implementation of Data Sciences techniques and algorithms.

This training will equipped you in all areas of Data Science, our PhD and Certified trainers will provide every aspect of data sciences and make you enable for the existing and upcoming world. In minimum time, how you can understand Data Sciences and its techniques.

Get onboard with 3deducators.com to make a place for yourself on this platform and world of data sciences.

1. Python Fundamentals For Machine Learning and Data Science

- Python Basics: Setting up Python and Jupyter Notebook and Python Development Environments. An introduction to the basic concepts of Python. Learn how to use Python interactively and by using a script. Create your first variables and acquaint yourself with Python's basic data types. Variables and types, variable assignment, calculations with variables, other variable types, type conversation. Conditions and loops handling in a bit large program.

- Numerical Data handling: Python list and fundamentals with how to use in programming, Functions, and packages, how to use functions, methods and packages to efficiently leverage the code that brilliant Python developers have written, NumPy is a fundamental Python package to efficiently practice data science. Learn to work with powerful tools in the NumPy array, and get started with data exploration, practice examples.

- Guided Hour   :   24 Hours

- Classes Per Week   :   01

- Duration of Class   :   03 Hours

- Non Guided   :   12 Hours

- Total Hours   :   36 Hours

2. Feature Engineering

- In this course, you will learn how best to pre-process and engineer features from categorical, continuous, and unstructured data. This course will give you hands-on experience on how to prepare any data for your own machine learning models.

- Creating Feature: loading, exploring and visualize a survey response dataset, and in doing so you will learn about its underlying data types and why they have an influence on how you should engineer your features. Using the pandas package you will create new features from both categorical and continuous columns. Dealing with data: An introduction to the reality of messy and incomplete data. You will learn how to find where your data has missing values and explore multiple approaches on how to deal with them. You will also use string manipulation techniques to deal with unwanted characters in your dataset. Exploratory Data Analysis: (Dimensional Analytics, Statistical Analysis, Descriptive Statistics), Data Cleaning and Preparation (Data Transformations, Feature Selection, Missing Value Analysis), The Role of Meta Data in Data Lake Management.

- Guided Hours   :   18 Hours

- Classes Per Week   :   01

- Duration of Class   :   03 Hours

- Non Guided Hours   :   10 Hours

- Total Hours   :   28 Hours

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3. Machine Learning towards Data Science

Supervised Learning: Introduction to supervised learning, practice the different several aspects of supervised machine learning techniques, such as selecting the optimal feature subset, regularization to avoid model overfitting, feature engineering, and ensemble models. Regression, regularization, avoiding overfitting. Classification model features, logistic regression baseline classifier, ensemble methods, bootstrap aggregation, boosting, XG Boosting. Unsupervised Learning: Unsupervised learning is used to apply feature extraction and visualization techniques for dimensionality reduction and clustering methods to select not only an appropriate clustering algorithm but an optimal cluster number for a dataset. Clustering analysis, clustering algorithms, k-means clustering, hierarchical agglomerate clustering, what is optimal k, silhouette method, Elbow method. Model selection and Evaluation: bootstrapping and cross-validation, validating model performance, Decision tree, A forest of decision trees, Model evaluation: imbalanced classification models, x-ray weapon detection, imbalanced class metrics, resampling techniques, random forest vs gradient boosting.

- Guided Hours   :   24 Hours

- Classes Per Week   :   01

- Duration of Class   :   03 Hours

- Non Guided Hours   :   12 hours

- Total Hours   :   36 Hours

4. NoSQL for Large Size of Data

MongoDB is a tool to explore data structured as you see fit. As a NoSQL database, it doesn't follow the strict relational format imposed by SQL. By providing capabilities that typically require adding layers to SQL, it collapses complexity. With the dynamic schema, you can handle vastly different data together and consolidate analytics. The flexibility of MongoDB empowers you to keep improving and fix issues as your requirements evolve. In this course, you will learn the MongoDB language and apply it to search and analytics. Case Study: "How NoSQL databases are Solving Major Big Data Management Problems of Different Industries?".

- Duration   :   18 Hours

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5. Real-time Application of Data Science

- This area is mandatory, the candidate must have to complete the project after completion of above areas and must be submit to the management of 3D EDUCATORS through faculty for final awarding or marks-statement or Certification.

- Guided and Non Guided   :   32 Hours

- Total Program Hours   :   102 Hours
  Guided

- Total Program Hours   :   76 Hours
  Non- Guided

- Total Program Hours   :   178 Hours Diploma
  One hundred and Seventy Eight Hours Diploma in Data Sciences

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TERMS & CONDITIONS

WITHDRAWAL FROM THE CERTIFICATION OR DIPLOMA
Students are not allowed to withdraw from the CERTIFICATION/DIPLOMA. If a student cannot continue the CERTIFICATION his/her fee will be forfeited.

CONDUCT AND DISCIPLINE
A disciplinary action, leading to rustication, will be taken against students whose conduct is found objectionable at any time during the course of study. Reference will be made to 3D Educators code of conduct.

EVALUATION AND GRADING
The performance of students is evaluated through continuous observation of a student's performance in the CERTIFICATION/DIPLOMA – class participation, submission of assignments, quizzes and exercises.
The student will be examined through three hourly exams conducted at the midterm and a final exam at the end of the program. Total marks for passing the CERTIFICATION/DIPLOMA will be 70 out of a total of 100.
Students who do not meet the attendance or any other eligibility criteria will not be allowed to appear in the final examination.

The following grading plan will be applicable for the CERTIFICATION/DIPLOMA:

A	B+	B	C+	C	F
87-100	81-86	72-80	66-71	60-65	Below 60

Students who are unable to appear for the final exam are required to submit a written application stating the reason for not appearing for the exam. 3D Educators reserves the right to approve or deny such applications. If approved, the student will be allowed to sit for the exam within one month. Failure to do so, the student will be resubmit the examination fee and sit the future schedule exam. Without passing of the exams no certification will be awarded.

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ONLINE LIVE CLASSES FACILITY AVAILABLE

- Instructor Led Training
- Real Time Presentations
- Interactive Classes
- Complete Notes and Other Stuff shall be provided through our Secure Student Login Member's Area
- For Online Live Classes, you may please download the Admission Form through our website http://www.3deducators.com. Fill it properly and attached the required document along with Picture and send back to info@3deducators.com with scanned fee submitted voucher in the bank.
- For Pakistan you may submit the fee at any MCB Branch with the title of "3D EDUCATORS-TRAINERS & CONSULTANTS".
- If you are outside Pakistan then you may transfer via Bank to Bank or any western union, Fast Track, Money Gram or else International Transfer Body.
- After Admission, if you don't have GMAIL Account then you are requested to kindly make one GMAIL Account and shared it info@3deducators.com. Then further correspondence shall be made by our institute official.
- Extra Bandwidth Charges shall be incurred.

DISTANCE NOT MATTER

You can join in the live classes Sessions of 3D EDUCATORS – TRAINERS & CONSULTANTS from anywhere of the world.

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PRECAUTIONARY MEASURES

- During Classes, you are requested to make sure that you are in isolated room, where no noise should be there except your voice.

- Kindly Switch Off your Cell Phone during the class, because it will disturb the quorum of class.

- If you have taken the admission in the course online lonely, then ethically it is recommended and suggested that you alone in the class.

- Recording of Lectures are not allowed at your end.

This world is emerging and growing in the 21st Century very rapidly because of latest and remarkable technologies and its advancement. Due to advancement of technology, we 3D EDUCATORS offer Live Interactive class sessions

3D EDUCATORS believe on Information Technology and its systems. Now you can also avail this facility at your home.

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Get the Admission Form

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MANAGEMENT
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