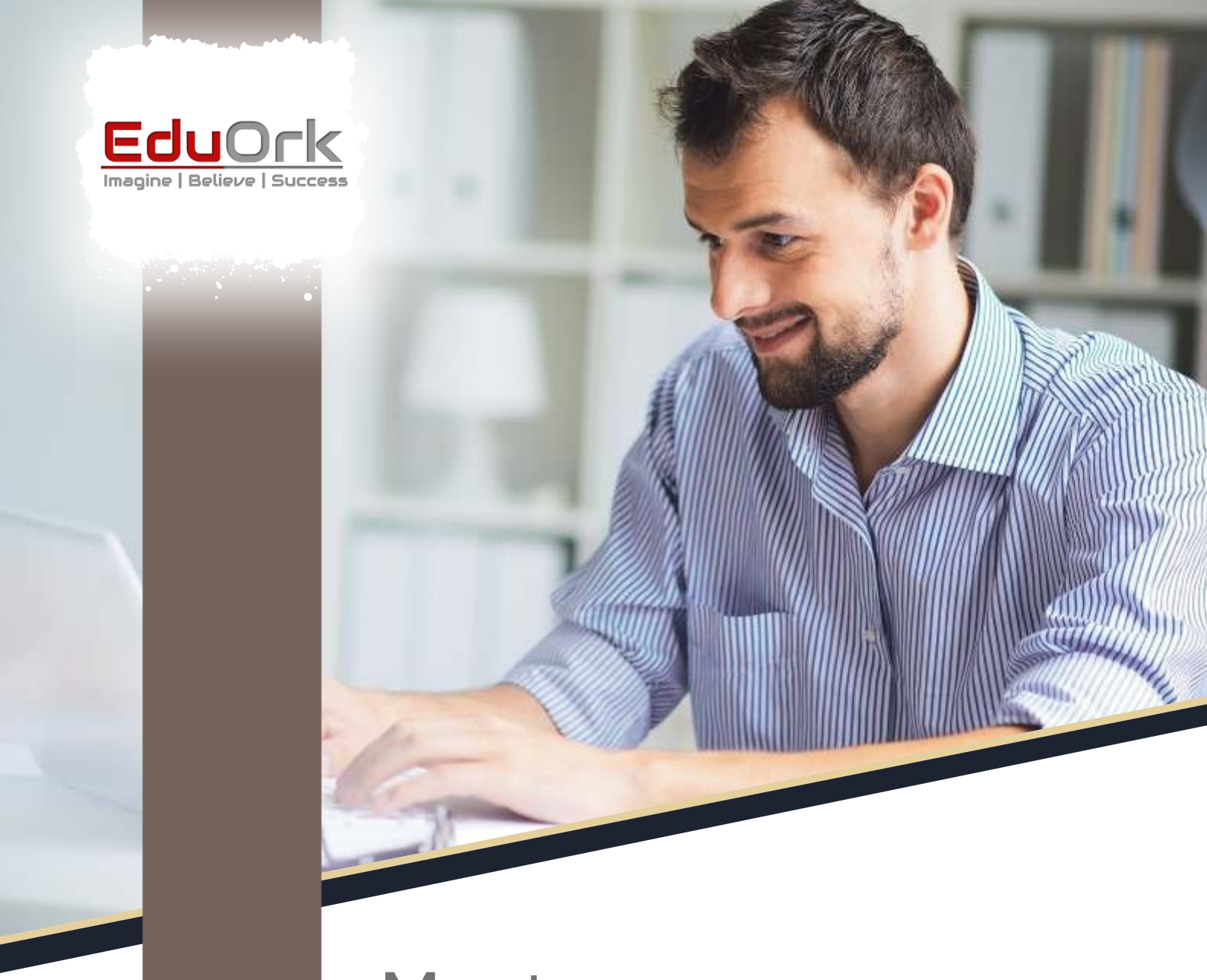
EduOrk
Imagine | Believe | Success



Master
Data Science
Certification Course

Become IBM Certified Data Scientists

50k
Learners

1:1 Personalized
Mentorship

40% Average
Salary Hike

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About The Course

Data Science is extracting knowledge from data to make predictions or develop models, and it is a rapidly growing field with great potential for businesses. Data Science is the process of transforming raw data into valuable insights that can be used to make informed decisions. It is a field of study that deals with the application of statistics, machine learning, and data mining to solve problems. Data Science Training Program makes you proficient in tools and systems used by Data Science Professionals. It includes training on Statistics, Machine Learning, Data Science, Python,. Gain hands-on exposure to key technologies including R, Python, Tableau. Become an expert Data Scientist today.

Data science continues to evolve as one of the most promising and in-demand career paths for skilled professionals. Today, successful data professionals understand that they must advance past the traditional skills of analyzing large amounts of data, data mining, and programming skills. In order to uncover useful intelligence for their organizations, data scientists must master the full spectrum of the data science life cycle and possess a level of flexibility and understanding to maximize returns at each phase of the process.

Data Scientist

Data scientists examine which questions need answering and where to find the related data. They have business acumen and analytical skills as well as the ability to mine, clean, and present data. Businesses use data scientists to source, manage, and analyze large amounts of unstructured data. Results are then synthesized and communicated to key stakeholders to drive strategic decision-making in the organization.

Data Engineer

Data engineers manage exponential amounts of rapidly changing data. They focus on the development, deployment, management, and optimization of data pipelines and infrastructure to transform and transfer data to data scientists for querying.

Now Is The TimeTo Upskill Yourself

Program Eligibility Criteria and Prerequisites

This Data Science course is designed for all working professionals & pursuing students with any technical / non technical degree or equivalents such as B.Tech, M.Tech, BCA, MCA, B.A. B.SC etc. and basic programming knowledge. This Data Science with Python course is beneficial for analytics professionals willing to work with Python, Software, and IT professionals interested in the field of analytics, and anyone with a genuine interest in Data Science.

Tools Covered

NumPy python jupyter pandas

Keras SQL git TensorFlow

PyTorch aws docker

EduOrk Pvt. Ltd. is a fast-growing company and a leading IT Skill Solutions company on its way to provide IT Technical Education in collaboration with IBM via online & offline mode. EduOrk is a global learning platform that helps students and working professionals to learn anything from anywhere, A company that has immense expertise in transforming careers across industries such as Cloud Computing, Networking, Cyber Security, Data Analytics, Data Science, Web Designing & Development, Business Analysis, and core technology essentials for the IT sector and technical roles. EduOrk provide all-necessary IT technical skills to learners. So, they can be ready for this competitive era. We are creating a pool of talents for global industry requirements. So, the IT industry can overcome its human resource challenges to find the best fit for their organization.

Learn From the Best

All our courses are taught by the Top Technology Leaders and are relevant to industry needs. Upon completing acourse, you'll receive a verified completion certificate recognized by EduOrk.

Why Choose Us?

- Instructor-led Live Online Classroom Training
- Affordable Fee Structure
- High-Quality Hands On Practical Training
- Live Sessions with Top Technical Trainers
- Get access to courses for your technical skills
- Comprehensive Course Content
- Superb Satisfaction Score
- Internship on Real-Time Projects
- Earn a certificate when you complete a course
- Fresh graduates who are intent on taking the plunge into the job market
- Career Mentoring & Interview preparations
- 100% placements assistance from top companies

Our learners are able to access their learning material, all associated content and services through a dashboard on connected Desktops/ Laptops/Tablets/ Smartphones. They are also able to attend LIVE Instructor-led training by some of our best instructors, they are also able to view recorded sessions, take quizzes, and interact with their instructors & other joiners.

Course Curriculum of Master Data Science

Introduction to data science and python

- Case study based discussion and problem solving thought process initiation
- Different Analytical Domain
- Industry mentors guest talk

Python

- Python, Anaconda and relevant packages installations
- Structure of python program (comments , indentations)
- Operators
- Data type, variable
- User input, string methods

Data Structure

- Mutable /Immutable
- List
- Tuple
- Sets
- Dictionary
- List, sets and dictionary comprehension

Loop & Control Statements

- If & Else and Nested if else
- While and For loop
- Break, Continue and Pass
- Keywords in python
- Pattern making

Functions

- Basic functions
- Built-in
- Userdefined functions
- *args, **kwargs

Course Curriculum of Master Data Science

Advanced Functions

- Maps , filter, reduce
- Iterators and iterables
- Closures / decorators
- Generators
- File Handling and Exception Handling

Object Oriented Programming

- Class & Object
- Data abstraction , encapsulation , Inheritance, Dunder methods
- Customized modules

Django

- Starting your First Web Application
- Developing Standard Web Template
- Django Admin
- Models
- Views and URLconfs
- Forms

Numpy

- Indexing/slicing
- Appending /Inserting on axis
- Mathematical and statistical operations
- Sort/Condition
- Transpose Operations
- Joining/splitting

Course Curriculum of Master Data Science

Pandas

- Data Extraction
- Series Dataframe and Plane
- Indexing and Slicing
- Conditions/Grouping/Imputations
- Append/concat/merge/join
- Date time functionalities and resampling
- Excel functions

Data visualization with Matplotlib and Seaborn

- Customization of matplotlib and seaborn
- Scatterplots/barplot/histogram/density plots
- Box Plot and outlier detection
- Visualization Linear relationship
- Univariate , Bivariate and Multivariate analysis

Data base

- Mysql

Statistics

- Linear algebra
- Matric operation and properties
- Introduction to calculus
- Theory of optimization
- Probability
- Conditional Probability
- Dependent and Independent events
- Bayes Theorem
- Descriptive / Inferential
- Variance / standard deviation
- Covariance And correlation
- Central Limit theorem
- Types of distributions
- pdf, cdf , pmf
- Confidence Intervals
- Hypothesis testing
- Z Test,t test,chi-2 test
- F-test/Anova

Course Curriculum of Master Data Science

Introduction to Machine Learning

- Introduction to Artificial Intelligence (DS, ML & DL)
- Applications of Machine Learning
- Categorization of Machine Learning
- Supervised / Unsupervised / Semi Supervised
- Parametric vs Non-Parametric

Supervised Learning (Regression/ Classification)

- Linear Regression
- Polynomial Regression
- Lasso Regression
- Ridge Regression
- Stepwise Regression
- Bayesian Regression

Classification

- Logistic Regression
- KNN
- SVM (Support Vector Machines)
- Decision Tree
- Naive Bayes
- LDA
- Classification for Imbalanced Dataset

Ensemble Learning

- Random forest
- Adaboost
- Gradient boosting
- Xgboost

Course Curriculum of Master Data Science

Unsupervised Learning

- K-means
- Hierarchical Clustering
- DBSCAN/ HDBSCAN

Scikit Learn

- Introduction to SciKit Learn (sklearn)
- Sample Dataset in SciKit Learn
- Artificial Generation of Dataset

EDA and Data Wrangling

- Null Values Imputation
- Outlier Detection
- Univariate/ Bivariate/ Multivariate Analysis
- Encoding
- Label Encoder
- Ordinal Encoding
- One Hot Encoding
- Scaling
- MinMaxScaling

Feature Selection and Dimensionality Reduction

- Feature Selection
- Filter Methods
- Wrapper Methods
- Embedding(Ridge /Lasso)
- Dimensional Reduction
- PCA
- AutoEncoders

Course Curriculum of Master Data Science

Modeling

- Train/ Test Split
- Assumptions
- Basic Modeling
- Under fitting, Over fitting, Bias and Variance
- Loss Functions

Cross-Validation and HyperParameter Tuning

- Holdout Validation
- K-fold cross Validation
- Stratified Kfold
- Cross_val_score
- GridSearchCV
- RandomizedSearchCV

Evaluation Metrics and Improvement Techniques

- Accuracy measurement
- Confusion Matrix
- Precision/ Sensitivity/ Specificity/ F1 Score
- AUC/ ROC
- MSE/ MAE/ R2/Adjusted R2

Criteria to Select Models

- Bias vs Variance Trade offs
- Decision with the help of learning curve

Time Series:

- Stationarity
- AutoRegression/ AutoCorrelation
- ACF vs PACF Plots
- Smoothing Time Series
- Dicky Fuller Test
- Time Series Decomposition
- Modeling and Forecasting
- AR/ MA/ ARIMA/ SARIMA

Course Curriculum of Master Data Science

Deep Learning

- Neural Networks In Python
- Neuron and relate it with Logistic Regression
- Multiple layer Neural network
- Similarities and Differences with Basic ML
- Forward Propagation
- Back Propagation Algorithm
- Vanishing Gradient and Exploding Gradient
- Activation Functions:
- Non Linearity
- Sigmoid / Tanh Function
- Relu /Leaky Relu /Gelu
- Softmax Function
- Optimizers
- Gradient Descent
- Stochastic Gradient Descent

Momentum

- AdaGrad
- RMSProp
- NAG
- Adam/ Nadam

Tensorflow:

- Tensors
- Session
- Placeholders and Variables
- Hands on with Tensorflow
- Graphs

Keras:

- Purpose of Keras
- Sequential vs Functional
- Model Creating
- Using while Regression and Classification

Course Curriculum of Master Data Science

Pytorch

- Tensors
- Autograd
- Graphs
- Pytorch.nn
- Control Flow and Weight Sharing

OpenCV

- Read/ Write Images
- Gray to BGR
- Filter2D
- Scaling/ Rotation
- Laplace Transformation

Types of Networks

- Feed Forward Networks
- Fully Connected Networks
- Recurrent Neural Networks
- Convolutional Networks
- RBM
- Deep Belief Networks

CNN(Convolutional Neural Network)

- Convolution, Padding, Stride, and Pooling
- Backpropagation in CNN
- ROI Masking
- Types Of CNN
- R-CNN, Fast R-CNN, YOLO

Architectures

- LeNet/ Alexnet
- VGG 16/ 19
- ResNet
- MobileNet
- U-Net

Course Curriculum of Master Data Science

Natural Language Processing

- Natural Language Processing
- Natural Language Processing in Python
- Natural Language Processing in R
- Studying Deep Learning
- Artificial Neural Networks
- ANN Intuition
- Plan of Attack
- Studying the Neuron
- The Activation Function
- Working of Neural Networks
- Exploring Gradient Descent
- Stochastic Gradient Descent
- Exploring Backpropagation

Attention Mechanism

- Soft and Hard Attention
- Local and Global attention
- Monotonic Alignment and Predictive Alignment
- Multi headed Attention

Miscellaneous

- Semi Supervised Learning
- Transformers/Bert/GPT3
- Graphs and GNN

Github

- Life Cycle
- Local Repository
- Add / Commit / Push / Pull
- Merge
- Stas

Course Curriculum of Master Data Science

AWS

- AWS Servers
- AWS Sagemaker
- S3 Buckets
- Build Train Deploy

Docker

- Architectures
- Images
- Containers
- Container Linking
- Instruction Commands

PROJECTS

Project 1. Analysis on covid-19 dataset (india)

Libraries used in Project :
statistics, pandas, matplotlib, seaborn and numpy

Project 2. Advance House Price Prediction

Libraries used in project :
Sklearn, pandas, numpy, seaborn, scipy and matplotlib

Project 3. Water quality test

Libraries used In project:
Sklearn, pandas, numpy, seaborn, scipy and matplotlib

Project 4. Stock price prediction

Libraries used in project:
Sklearn, pandas, numpy, seaborn, scipy and matplotlib

Project 5. Face recognition on custom dataset

Libraries used in Project:
Numpy, pandas, matplotlib, seaborn, tensorflow and keras

Project 6. Image classification on custom dataset

Libraries used in Project:
Numpy, pandas, matplotlib, seaborn, tensorflow and keras

Project 7. Language translation

Libraries used in project :
Numpy, pandas, matplotlib, seaborn, tensorflow and keras

Project 8. Spam classification

Libraries used in project :
Numpy, pandas, matplotlib, seaborn, tensorflow and keras

Project 9. Text classification using Bert

Libraries used in project :
Numpy, pandas, matplotlib, seaborn, tensorflow and keras

Who Should take this course & why

Fresher's
Looking For A Job In IT

Working Professionals
Looking For A Job Change or Career Growth

Course Duration

DURATION : Weekends- 6 Months
(Saturday & Sunday -2.5 Hrs/day

: Weekdays - 4.5 Months
(Monday To Thursday - 1.5 Hrs/day)

Career Assitance

1. RESUME BUILDING

We help you refine and polish your resume with tips to help you land your coveted job

2. INTERVIEW PREP

We prepare you to face the technical interview rounds with mode Q&A and extensive MOCK Interview

3. PLA CEMENT ASSISTANCE

We give you unlimited interview calls and industry connects as a reference for placement assistance

What Makes Us Different

Career-Oriented Sessions

• Attend career-oriented sessions by industry experts and prepare your career planning

Mentoring Sessions

• Get 1:1 guidance at every step in your career transition to "DATA SCIENCE ENGINEER" Mock Interview Preparation

• Prepare with mock interviews including most asked questions by top employers

Placement
“A great job is about great fit”

In this ERA of competitions, from an individual human being to an enterprise, even the whole world is dependent on technology, without upgrading skills according to industry needs It becomes very difficult for any fresher to get a job. Even for a working professional, it is very difficult to change His/her Job. We EduOrk Pvt Ltd provide Job oriented pieces of training to upgrade technical skills and to walk parallelly with the industries. EduOrk provides job-ready training to all its learners. Our team always focuses on the placement of our students. Because we are not only providing training but also build students skilled, dynamic and best choice for the organizations. On a regular basis, we also conduct personality development programs to prepare students Job ready. We believe in high-quality training because we know what organizations want.

Trusted By Amazing Companies

Thank You!

Eduork Pvt. Ltd.

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