Data Science (Beginner)

Duration – 40 Hours

Program Description
This program introduces the fundamentals of Data Science, focusing on understanding data, basic analysis techniques, and the use of essential tools. Participants will learn how to manipulate, visualize, and derive insights from data, preparing them for further advanced study in analytics and machine learning.

Learning Goals
- Understand the data science workflow and lifecycle
- Gain proficiency in data collection, cleaning, and preprocessing
- Learn basic statistical concepts and exploratory data analysis
- Visualize data using charts and graphs
- Use Python/R and popular data analysis libraries for simple projects

Course Topics
- Introduction to Data Science
- Data Collection and Cleaning
- Exploratory Data Analysis (EDA)
- Basic Statistics for Data Science
- Data Visualization Techniques
- Introduction to Python/R for Data Science
- Hands-on Mini Projects

Data Science (Intermediate)

Duration – 40 Hours

Program Description
This program builds on foundational data science skills, introducing predictive modeling, machine learning algorithms, and advanced analytics techniques. Participants will gain hands-on experience applying models to real-world datasets and develop critical thinking for deriving actionable insights.

Learning Goals
- Understand and implement supervised and unsupervised learning techniques
- Build predictive models using regression, classification, and clustering
- Apply feature engineering and model evaluation techniques
- Explore time-series and advanced analytical methods
- Gain experience with real-world datasets and case studies

Course Topics
- Review of Data Science Fundamentals
- Supervised Learning: Regression & Classification
- Unsupervised Learning: Clustering & Dimensionality Reduction
- Feature Engineering & Data Preprocessing
- Model Evaluation and Selection
- Time-Series Analysis & Forecasting
- Introduction to Machine Learning Frameworks
- Capstone Projects & Case Studies

Data Science (Advanced)

Duration – 80 Hours

Program Description
This advanced program equips participants with in-depth knowledge of machine learning, deep learning, and AI-driven analytics. It focuses on implementing complex models, working with unstructured data, and deploying data science solutions at scale. The program includes hands-on projects and real-world case studies to prepare learners for professional data science roles.

Learning Goals
- Master advanced machine learning and deep learning algorithms
- Work with unstructured data such as text, images, and audio
- Implement Natural Language Processing (NLP) and computer vision solutions
- Learn model deployment, MLOps, and scalable analytics practices
- Develop end-to-end AI and data science projects with real-world datasets
- Understand advanced ethical and governance considerations in AI

Course Topics
- Advanced Machine Learning Techniques
- Deep Learning and Neural Networks
- Natural Language Processing (NLP) Applications
- Computer Vision and Image Analytics
- Big Data Analytics and Scalable Solutions
- Model Deployment & MLOps Fundamentals
- AI-Driven Decision Making
- Responsible AI & Governance
- Capstone Projects & Industry Case Studies

Modules can be customized to suit client's specific needs and duration accordingly

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