

MASTER PROGRAM

on

Data Science



Certification 6 Months / 90-120 Hours Industry ready exhaustive program

Master Course Training Program

Make Projects & Get Trained





About EduVitae Services

EduVitae Services, run by **IITians & industry experts**, is a renowned provider of education, training, research and development programs, with a large presence. We offer a wide range of specific industry ready courses and training opportunities in the areas of computer science and IT, animation and multimedia, as well as engineering, management and advanced technology. Our programs include workshops, training, internships, corporate training, certificate courses, placement training, research, and development programs, all designed to meet the needs of students, professionals, academic institutions, and industry. Our reputation as one of the best technology training providers, is a testament to our commitment to helping our students and clients acquire the skills and knowledge they need to succeed in their careers and goals.

Our Clientele/Collaborations

Top private & government academic institutions, college's fests and corporates where directly/indirectly our presence have been felt:

Indian Institute of Technology, Kanpur Indian Institute of Technology (Banaras Hindu University), Varanasi Indian Institute of Technology (ISM), Dhanbad Indian Institute of Technology, Jodhpur Indian Institute of Technology, Bhubaneswar Blithchron, Indian Institute of Technology, Gandhinagar Indian Institute of Technology, Guwahati Indian Institute of Technology, Patna Indian Institute of Management (IIM), Lucknow Indian Institute of Management (IIM), Indore National Institute of Technology, Surat National Institute of Technology, Bhopal National Institute of Technology, Warangal National Institute of Technology, Trichy Chandigarh University DIC, Department of Applied Arts (Visual Arts), Banaras Hindu University, Varanasi Madan Mohan Malaviya University of Technology, MMMUT Gorakhpur Maharaja Agrasen Institute of Technology, Delhi Thapar Institute of Engineering & Technology, Punjab Assam Engineering College, Assam Jaypee University of Engineering & Technology Shillong College, Meghalaya SRCC, Delhi University Kendriya Vidyalaya, India DAV School. India

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Industry/Corporate/Startups/Government MapsCrew Rabbixel CreativeHatti





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and many more tech & non-tech colleges/universities/institutes/schools & organizations/startups/companies across India and globe.

Achievements & Milestones

- Our alumni / students are working in top notch company of India & MNCs VMware, Infosys, Cognizant, CGI, Fidelity, Razorpay, EXL, CARS24, Tata Steel, NVIDIA, MyKaarma, Oyo Rooms, Samsung, Walmart Labs, L&T, JIO, Citibank, TCS, Accolite, BNY Mellon, and many more.
- Conducted a number of workshop/training/internship programs in many colleges/universities/schools like IITs, IIMs, NITs,
 IISc & other prestigious institutions of India & with the corporates too.
- ✓ Trained many college/university/school students, some of them have created a milestone for EduVitae Services by meeting with Shri Narendra Damodardas Modi (Prime Minister of India) related to some robotics projects.
- ✓ Collaborating with Industries / Corporates / Startups to provide them hiring services (helping them to hire fresh trained talent with us).
- Signed MOUs / worked with top notch colleges / universities / schools / organizations like Techkriti IIT Kanpur, Technex IIT (BHU) Varanasi, Wissenaire IIT Bhubaneswar, Techniche IIT Guwahati, Concetto IIT (ISM) Dhanbad, Pravega IISc Bangalore, IGNUS IIT Jodhpur, Ranbhoomi IIM Indore, IIM Lucknow, MMMUT GKP, NIT Surat, NIT Bhopal, NIT Warangal, NIT Trichy, Chandigarh University, Thapar University, SRCC DU, KMC DU, TIH IIT Roorkee DST Govt. of India and many other academic institutions for professional / industry ready & learning skills training / workshop / internship programs.

Prerequisites

Participants from CSE/IT/MCA/BCA/MSc/BSc-IT/ECE/EE/Other branch/stream will get more benefit after joining this program and other interested students / fresher / professionals can also participate in that as per their requirements and career goals.

What is required before joining this training program?

Here's the checklist

- 1. A laptop with Microsoft Windows (7 or later) configuration along with smartphone as per need/requirement.
- 2. Laptop Charger/Adapter for charging purpose.
- 3. USB Mouse for designing purpose (if required).
- 4. Internet Connectivity (Typically to be able to do video call / conferencing).
- 5. Notepad & Pen/Pencil for important notes.
- 6. Most important your interest and seriousness of learning.

Training Deliverables & Takeaways

Every participant will get

- ✓ Industry Ready Curriculum
- Certification Program





- ✓ Projects/Practical Based Learning
- ✓ Career Guidance
- ✓ Interactive & Doubt Session (online)
- ✓ Internship/Placement Assistance

Course & Content

All of the sessions will be theoretical & practical oriented, so it will be really great if participant(s) can look on the syllabus which we are going to cover during master program training days.

Data Science

Module 1: Introduction to Data Science (8-10 hours)

- What is Data Science?
- The Data Science Workflow
- Data Science Applications
- Setting Career Goals in Data Science
- Assignment: Define Your Data Science Career Path

Module 2: Python and Data Manipulation (10-12 hours)

- Introduction to Python for Data Science
- Data Manipulation with NumPy and Pandas
- Data Visualization with Matplotlib and Seaborn
- Introduction to Jupyter Notebooks
- Assignment: Python Basics and Data Analysis

Module 3: Data Preprocessing and Cleaning (12-15 hours)

- Data Cleaning and Handling Missing Values
- Data Scaling and Normalization
- Feature Selection and Engineering
- Encoding Categorical Data
- Assignment: Data Preprocessing for a Data Science Project

Module 4: Exploratory Data Analysis (EDA) (15-18 hours)

- Descriptive Statistics and Data Summarization
- Data Visualization for EDA
- Hypothesis Testing and Statistical Inference
- Correlation Analysis
- Assignment: EDA on Real-world Datasets

Module 5: Mathematical preliminaries for Machine Learning

• Basics of linear algebra (Vectors, subspace, eigen vectors and their significance)

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- Basics of Probability (Probability theorem, Bayes theorem, Random variables, probability distributions)
- Optimization techniques (Loss function and its derivatives, methods of reduction of loss)
- Significance of Statistics Machine learning (brief overview about mean, median, mode, when to use which measure)

Module 6: Supervised Learning (20-25 hours)

- Linear Regression
- Logistic Regression
- Decision Trees and Random Forests
- Support Vector Machines (SVM)
- Assignment: Implementing and Evaluating Supervised Learning Models

Module 7: Unsupervised Learning (15-18 hours)

- K-Means Clustering
- Hierarchical Clustering
- Principal Component Analysis (PCA)
- Association Rule Mining
- Assignment: Unsupervised Learning Project

Module 8: Machine Learning Model Evaluation (12-15 hours)

- Model Evaluation Metrics
- Cross-Validation Techniques
- Bias-Variance Tradeoff
- Hyperparameter Tuning
- Assignment: Model Evaluation and Tuning

Module 9: Big Data and Spark (12-15 hours)

- Introduction to Big Data
- Apache Spark Fundamentals
- Spark DataFrames and MLlib
- Working with Distributed Data
- Assignment: Analyzing Big Data with Spark

Module 10: Deep Learning and Neural Networks (20-25 hours)

- Introduction to Neural Networks
- Building and Training Neural Networks with TensorFlow and Keras
- Convolutional Neural Networks (CNNs)
- Recurrent Neural Networks (RNNs)
- Assignment: Deep Learning Projects

Module 11: Natural Language Processing (NLP) and Text Mining (15-18 hours)

• Text Preprocessing and Tokenization





- Sentiment Analysis
- Named Entity Recognition (NER)
- Text Generation with RNNs
- Assignment: NLP and Text Mining Project

Module 12: Final Projects and Career Preparation (10-12 hours)

- Capstone Data Science Projects
- Resume Building and Interview Preparation
- Building a Professional Portfolio
- Job/Internship Search Strategies and Assistance

Disclaimer

Please make sure that this workshop/training/internship/seminar/webinar/master program will be organized by EduVitae Services, it is to note that if any IIT/IIM/NIT/Organization is EVS partner then they are only responsible for providing certification to attending students/professionals accordingly, marketing, publicity and rest operations, scheduling, payment processing, training, content development etc. will be taken care by EduVitae Services.

All of the matters/disputes related to internship/training/workshop/master program needs to be addressed to EduVitae Services team only. See our terms and conditions on www.eduvitae.co.in and fees once paid is non-refundable and non-transferrable. Company reserves full right to withdraw any offer/discount anytime without any prior notification, also it's important to understand that center & batches date/time/duration etc. of any program/event can be changed as per requirements in India and across globe.

