

**edureka!**  
*a Veranda Enterprise*

ADVANCED CERTIFICATE PROGRAM IN

# DATA SCIENCE AND AI

IN COLLABORATION WITH



**E&ICT Academy**  
**IIT Guwahati**



## E&ICT Academy IIT Guwahati

As an initiative of Ministry of Electronics & Information Technology (MeitY), the Academy was setup at IIT Guwahati under the scheme of “Financial Assistance for setting up Electronics and ICT Academies”. On 26 March, 2015 the project started at IIT Guwahati and the Academy was inaugurated by Prime Minister Shri. Narendra Modi on 19 January, 2016. The objective of the Academy is to provide skill training to the Faculty Members (Engineering & Non-engineering) in the area of recent trends in engineering & ICT application. The Academy is designing specialised modules for imparting quality training for enhancing employability and capacity building in the area of Electronics & ICT. In the past 7 years the Academy has successfully conducted **300+** Faculty Development Programme through conventional classroom teaching and NKN virtual classroom mode in different Institute/University of North Eastern States in particular and few in other states of India. Till date the Academy has successfully trained **18000+** participants. The Academy has also signed MoU with Institutes/Universities for hosting the programmes and for conducting hands-on session the Academy collaborated with Industries as Training/Industry Partners. The Academy is also offering online Advance Certification Course in the area of Data Science, Artificial Intelligence & Machine Learning, Big Data, Cloud Computing, Full Stack and VLSI Design and trained **1000+** graduates and working professionals. The Academy has also delivered training to Assam Police official on cybercrime concepts and trained 90+ officials. The project has been extended to 30 September, 2022. The academy has been given a target to train 13019+ faculties till **30 September 2022**, the Academy has achieved the same by **31 March 2022**.



EduReka is an online education platform focused on delivering high-quality learning to working professionals. We have the highest course completion rate in the industry and we strive to create an online ecosystem for our global learners to equip themselves with industry-relevant skills in today's cutting edge technologies.

## Why is Data Science Important?

Knowledge is power in business, and data is the fuel that creates this power. Global data is estimated to reach 175 Zettabytes by 2030 (1 Zettabyte = 1 billion TB) Being able to harness the power of this data through data science is extremely valuable.

Data science uses scientific methods, processes, algorithms, and systems to extract knowledge from data. Leveraging this data to take major decisions is a key strategic practice for any business.



## Equipped with Data, organizations are using Data Science and AI to:



**Empower** management to make better decisions



**Help** identify trends to stay competitive



**Increase** the efficiency and commitment of staffs in handling core tasks and issues



**Identify** and act upon opportunities



**Promote** low-risk data-driven action plans



**Facilitate** sensible recruitment of talents

According to IBM's report 2022, there has been a considerable growth in median salary to INR 16.8 lakhs per annum, up by 25.4% compared to last year. As per the same report, Data Science and AI professionals in captives command the highest median salary compared to other company types, at INR 25.3 lakhs per annum. However, worryingly, the same report revealed that on average, each of these roles will remain unfilled up to 45 days because of a lack of talent. The demand-supply gap will not only lead to many job opportunities but will also enable professionals with the right skills to command higher salaries. Here are some of the current trends in the Data Science and AI job market:

## Current Trends of Data Science and AI



**Data Scientist and AI Engineer** ranks among the top trending jobs on LinkedIn & Glassdoor

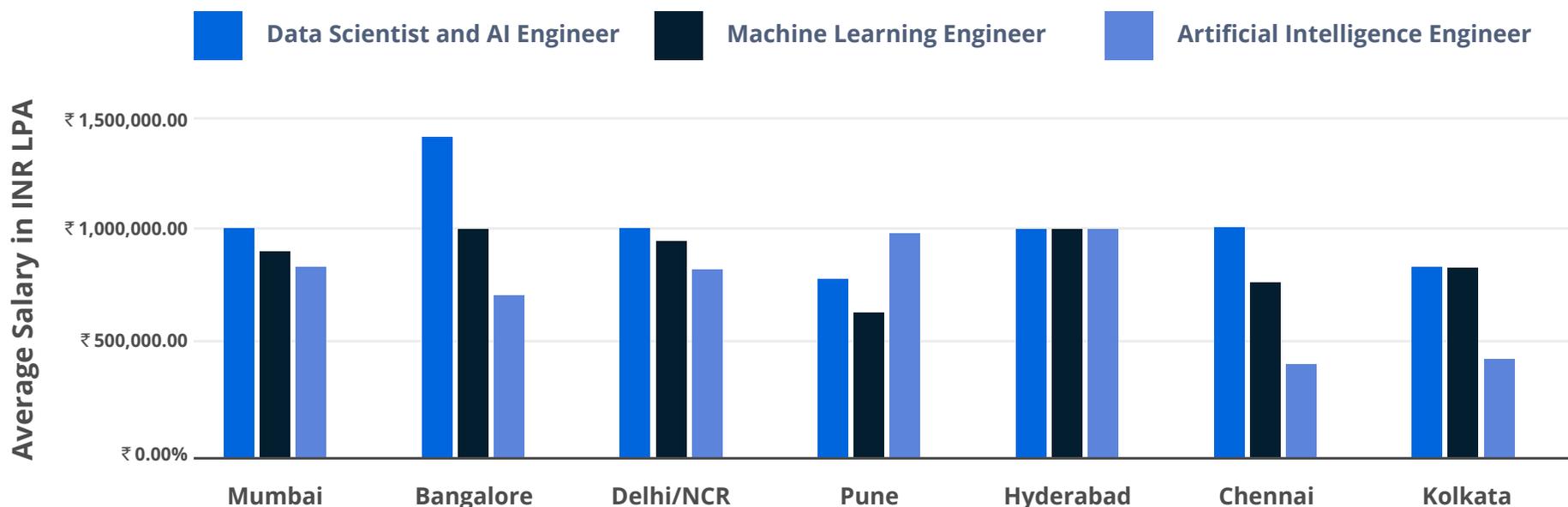


The global Data Science market growth is projected to be **\$484.17 billion by 2029**



The national average salary of a Data Scientist is **\$119,563** per annum in the United States

### Salary Trend Across Cities



Source - Glassdoor



## About the Partnership

Edureka, E&ICT Academy IIT Guwahati and industry veterans have jointly collaborated to create the Advanced Certificate Program in Data Science and AI to prepare the future workforce in Data Science and AI.



**Dr. Gaurav Trivedi**

*Principal Investigator, E&ICT Academy, IITG  
( <https://iitg.irins.org/profile/128317> )*



Today the amount of data organizations collect is unprecedented, and it's difficult to determine what to do with the data, what aspects of the data are important, and how it should be managed. So to equip today's professionals with tomorrow's technology, we at E&ICT Academy, IITG in collaboration with Edureka have launched our Advance certification Program in Data Science and AI.





**Vineet Chaturvedi**

*Co-Founder & CEO, Edureka*



The partnership between Edureka and E&ICT Academy, IIT Guwahati is built on the foundation of sparking a revolution in the Data Science and AI domain. To achieve that, we have created a world-class curriculum (including industry-grade capstone projects) for our learners. We are more than happy to collaborate with IIT Guwahati, which will benefit learners who wish to skill themselves in the Data Science and AI domain.



## Key Highlights



9-Month Online  
Advanced Certification



E & ICT Academy, IITG  
certificate on completion



Curriculum designed by Edureka  
and approved by E&ICT Academy,  
IIT Guwahati



450+ Hours of Learning



9+ Projects, 20+ Case  
Studies, 100+ Demos



High-Quality Lab  
Environment



Instructor-Led Live Online  
Sessions



Industry-Grade Capstone  
Project

## The Edureka Advantage

WHAT I NEED	WHAT EDUREKA OFFERS	WHAT OTHERS OFFER
<b>Practical Knowledge</b> and exposure relevant to the current industry/job needs	✔ Live instructor-led online classes by industry experts	✘ Recorded videos without any interaction with the instructor
<b>Personalised Attention</b> and help to make progress in my learning	✔ A Personal Learning Manager to guide you all through the course	✘ No personal attention. Online recordings common for everyone
<b>Curriculum</b> designed by Top 10 Institutes in India, relevant to the current industry/job needs	✔ Curriculum designed by Edureka and approved by E&ICT Academy, IIT Guwahati	✘ Curriculum by unknown foreign or local colleges
<b>Doubt Clearing Sessions</b> , regular and one-on-one	✔ 24x7 subject matter expert support for your technical/non-technical doubts	✘ Unsatisfactory support and zero doubt clearing sessions
<b>Support and Guidance</b> even after the course completion	✔ Lifetime access to our Learning Management System and Edureka Support	✘ No support after the completion of the course
<b>Certificate/Credentials</b> which are highly recognized in the industry/market	✔ Certificate from E&ICT Academy, IIT Guwahati, recognised globally	✘ Certificate from unknown foreign or local colleges
<b>Career Guidance and Placement Support</b> to get a relevant job in a top company	✔ Complete access to a plethora of our Career Assistance Services	✘ Minimal or no career/placement services
<b>Immersive Learning Experience</b>	✔ A unique learning ecosystem to give you an offline-like immersive experience	✘ Recorded videos without any live experience

# Career Assistance Services



## Data Science and AI Career-Oriented Webinars

In this Data Science and AI webinar, you will have a live and interactive webinar session with an industry expert to gain knowledge from a seasoned career mentor.



## Profile Building Assistance

In this Data Science and AI Program, you will get expert tips and advice on how to create an attractive and relevant resume and LinkedIn profile that guarantees effectiveness.



## Mock Interview Sessions

In this Data Science and AI training session, the learners can take part in mock interview sessions with industry experts to gain hands-on experience in real-life.



## Career Mentoring Sessions

Career Mentoring sessions on how to develop the right skills and the right attitude to secure a dream job.



## Job Search Assistance

Access to recruiters through Elevayt platform to help learners navigate through thousands of jobs, create their resumes along with skill verification, and track their job application status.

*Note: Placement Assistance will be provided to students applying only in India*

*Learn more about Edureka's hiring partners in the next section.*



Edureka has placed thousands of students in various top tech companies like:



SAMSUNG



MUNZO



## What's in it for You?

After completing the program, you will receive an industry-recognized certification from E&ICT Academy, Indian Institute of Technology, Guwahati (IITG) in Data Science and AI.

After getting your certification in Data Science and AI, you will be able to explore a wide range of Data Science and AI jobs available globally, like:

### Senior Level:

- Chief Data Scientist
- Principal Data Scientist
- Director Data Science
- Lead Data Scientist

### Mid Level:

- Data Scientist
- Senior Data Scientist
- Data Science Manager
- AI Engineer

### Entry Level

- Data Analyst
- Associate Data Scientist
- Junior Data Scientist
- Machine Learning Engineer

# Customer Success Stories



★★★★☆ 4.4

2,450+ Google Reviews



★★★★☆ 4.5

1,000+ Trustpilot Reviews



**Jeevan Dath**

Software Engineer, Infor

*"Very structured program by Edureka and NIT Rourkela. The instructors were really knowledgeable and competent and delivered very sound lectures. They took care of the basics and also explained the industry relevance of each topic"*



**Ajay Kumar Bachimanchi**

Data Scientist, Screevatives Software

*"I enrolled in Edureka's PG Program and had a very good learning experience. What I really loved were the live classes, with the hands-on tutorials (theoretical and practical) and the experienced faculty"*



**Ravaleedhar Murthy**

Technical Architect, HCL

*"Everything about the PG Program from Edureka is absolutely amazing. Kudos to the trainers for their knowledge of the subject and the ease with which they explain concepts"*



**Rachit Verma**

Sr. Systems Engineer, Infosys

*"Very structured program by Edureka & E&ICT, IIT Guwahati. The instructors were really knowledgeable and competent and delivered very sound lectures. They took care of the basics and also explained the industry relevance of each topic."*



**Shivam Dutt Sharma**

Deputy Manager, Ferns and Petals

*"The program was amazing and the instructors were instrumental in helping us learn Machine Learning and AI topics more effectively with hands-on training. I strongly recommend it."*



**Chandra Prakash**

Student

*"I enrolled in this Post Graduate Program and my experience was good. Our Program Coordinator and the support team were especially good and always provided solutions for any queries regarding the course."*

# Learning Path

**Week  
01-05**

## **Python for Data Science and AI**

Introduction to Data Science, Data Collection & Cleaning, Python Fundamentals, Control Flow and Functions, Array Computations using NumPy, Data Manipulation using Pandas. Visualizing Data using Matplotlib and Seaborn, Web Scraping (Self-paced)

**Week  
06-09**

## **Predictive Analytics**

Introduction to Statistical Analysis, Exploratory Data Analysis, Introduction to Probability, Probability Distribution Functions, Inferential Statistics - I, Inferential Statistics - II, Regression (Self-Paced)

**Week  
10-15**

## **Machine Learning**

Introduction to Machine Learning, Supervised Learning - Regression, Evaluating Regression Models, Supervised Learning - Classification, Decision Tree and Random Forest Models, Mathematical and Bayesian Models, Dimensionality Reduction, Unsupervised Learning using Clustering, Model Evaluation & Hyperparameter Tuning, Model Boosting & Optimization, Association Rule Mining & Recommendation Engines (Self-Paced), Time Series Analysis (Self-Paced)

**Week  
16**

## Mid-Program Project

**Week  
17-19**

### Machine Learning on Cloud

Cloud Computing and AWS Foundations, Conversational AI Development with SageMaker, Lex and Polly, Image and Data Analysis with AWS Rekognition, Textract, and Quicksight, Machine Learning Model Deployment in AWS

**Week  
20-22**

### Natural Language Processing

Introduction to NLP, Text Pre-processing, Analyzing Sentence Structure, Text Classification, Building a Resume Classifier (Self-Paced), Building a intent based RASA Chatbot (Self-Paced)  
NLP in Production (Self-Paced)

**Week  
23-27**

### Deep Learning

Introduction to Deep Learning, Getting started with Tensorflow 2.0 with Tensor Board, Neural Networks with TensorFlow 2.x, Deep Learning for Images using CNN, TensorFlow Hub for Object Detection using Faster RCNN, Object Detection Using OpenCV - Part 1, Object Detection Using OpenCV - Part 2, Deep Learning for Sequences using RNN (Self-Paced)

**Week  
28-29**

### **Data Warehousing and Big Data Storage**

Data Warehousing, Data Integration & ETL, Getting Started with Big Data, Storing Big Data in a Distributed Cluster, Data Mining (Self-Paced), Frequent Pattern Mining (Self-Paced), Data Ingestion in Hadoop using Sqoop and Flume (Self-paced), Spark's Big Data Engine and RDD Concepts (Self-Paced), Relational Data Processing with Spark - Spark SQL (Self- Paced), Machine Learning with Spark - Spark ML (Self-Paced)

**Week  
30-32**

### **Data Visualization using Tableau**

Data Connection and Visualization in Tableau, Calculations in Tableau, Advanced Visualizations, Sharing Your Insights Through Dashboards

**Week  
33-36**

### **Capstone Project**

## Program Aspects

Modular  
Assignments

20+

Strengthen your understanding of Data Science and AI with 20+ Modular Assignments

Projects

9+

3 Real-time Industry Grade Projects to consolidate your Data Science and AI learning

Case Studies

20+

Gain a better understanding of Data Science and AI with both Project and Problem based 20+ Case Studies

Features & Tools

50+

Practice your skills in our advanced Data Science and AI Lab with 50+ features and tools

## Tools, Languages & Frameworks



 Amazon Textract	 amazon QuickSight	 NLTK Natural Language Toolkit	 RASA	 Keras	 TensorFlow 2.0
 OpenCV	 hadoop	 Sqoop	 CUME	 APACHE Spark	 Tableau
 MySQL	 ChatGPT	 OpenAI API			

## Capstone & Live Session Projects

The projects and assignments will help you accumulate real-world experience in different industries like:

- |  |  |  |
|--|--|--|
|  Travel Industry    |  Entertainment Industry |  Retail Industry    |
|  BFSI Sector        |  Manufacturing Segment  |  Hospitality Sector |
|  Education Industry |  Healthcare Industry    |  Defense Sector     |

## Capstone Project



### Netflix-like Recommender System

Build a popularity based recommender system at a genre level for which it should recommend the most popular movies in any particular genre.

## Some of the Live Session Projects

- Stock Market Analysis
- 911 Call Data Analysis
- ML Model Building for MyCars Vehicle Store
- House Price Prediction System
- Credit Card Fraud Detection
- Deploy a WebApp to Predict the Sales

## Mid-program Project



### Diagnosis of Heart Disease using Machine Learning

Develop a machine learning model to estimate the likelihood of a patient suffering from heart disease or experiencing a heart attack.

# Instructors, Mentors & Influencers



**Harsh Vardhan**  
*Senior Mentor*  
Sr. Director, Capgemini



**Saurabh Batra**  
*Mentor*  
Manager Analytics, EXL



**Jitendra Upadhyay**  
*Mentor*  
Sr. Data scientist, Bank of America



**Apoorv Vishnoi**  
*Mentor*  
Data Science Corporate Trainer



**Sai Charan Tej Kommuri**  
*Mentor*  
Product Manager, Pegasystems



**Mukul Jain**  
*Mentor*  
Data Science Mentor, Edureka



**Mayank Vats**  
*Mentor*  
Senior BI Developer, Ciena



**Deepti Miyan Gupta**  
*Mentor*  
Data Scientist, IBM



**Awanish Golwara**  
*Influencer*  
Lead Platform Engineer - Foghorn



**Jatin Dixit**  
*Influencer*  
Senior Decision Scientist



**Shirish Singh**  
*Influencer*  
Decision Science & Advanced Analytics - CenturyLink



**Venkat Vatsavayi**  
*Influencer*  
Lead Data Scientist  
US-based AI product company

# Admissions Process

1



## Fill the Enrolment Form

You will be required to provide personal, educational, and professional details. Once we receive your details, our Admissions Counselor will reach out to take your candidature further.

2



## Take the Interview & Get the Offer Letter

A one-on-one chat with our SME to understand your basic knowledge, prior work experience, and your expectations from the course. After your interview assessment, you will receive an offer letter from us.

3



## Pay the Batch Confirmation Fees

Based on your scholarship form and interview performance, your final fee will be determined. You need to make an upfront payment to confirm your class batch.

4



## Get Your Batch Allotment

After the payment formalities, you will be given course credentials and your learning journey will begin!

## Eligibility

A potential candidate must have one of the following prerequisites:

- Should have studied PCM in 10+2
- Any Undergraduate Degree like BCA, B.Tech, B.E, B.Com etc
- Any Diploma holder with basic programming knowledge can also apply

## Program Fee

Program Fee	₹ 2,25,000/- Inclusive of all taxes
EMI Plan	EMI starts at ₹ 10,999/- per month

## Contact Us

For further details, please reach out to:

- ☎ +91 80350 68127
- ✉ admissions.pgp@edureka.co

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