

Advanced Certification in

DATA SCIENCE & MACHINE LEARNING

in collaboration with

**Electronics & ICT Academy
IIT Guwahati**

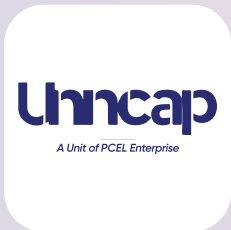




E&ICT Academy | IIT Guwahati

Guwahati, Assam

IIT Guwahati, established in 1994, is one of India's top institutions for science, engineering, and technology. Located in Assam, it offers undergraduate, postgraduate, and doctoral programs across various disciplines. Known for its cutting-edge research in areas like nanotechnology and AI, IIT Guwahati consistently ranks among the top Indian engineering schools. The campus is famous for its beautiful setting and active student life, with events like Alcheringa and Techniche drawing national attention. Globally recognized, IIT Guwahati continues to drive innovation and foster future leaders.



UNNCAP Edusense Private Limited



Unncap is not just another educational platform; we are a community dedicated to fostering intellectual curiosity, critical thinking, and lifelong learning. We understand that education is the key to personal growth, professional success, and societal advancement. That's why we've created a dynamic online learning environment where students of all ages and backgrounds can discover new passions, acquire valuable skills, and achieve their academic and career goals.

It was in the second half of FY 2023-24, that the Management decided to segregate its Learning & Development Wing and PCEL to focus on inhouse Training and decided to diversify into the arena of Skilled Based Job Oriented Training to students, which led to the genesis of a subsidiary company aimed at unlocking the potential of freshers and professionals. We focus on providing opportunities for individuals to enhance their productivity and deliverables by keeping pace with new technologies and skilling opportunities.





About the Partnership:

Unncap, E&ICT Academy IIT Guwahati, and industry veterans have jointly collaborated to create the Advanced Certification in Data Science and Machine Learning to prepare for the future of Data Science and Machine Learning



Dr. Gaurav Trivedi

Principal Investigator, E&ICT Academy, IITG

"Today, the amount of data being collected is more than ever before. It's hard to know what to do with it all and how to use it to solve problems. To help you learn the skills you need to work with this data, we at **E&ICT Academy, IITG**, in partnership with **Unncap**, have created an Advanced Certification program in Data Science and Machine Learning."



Purvi Manish Mathur

Director, Unncap Edusense Pvt Ltd

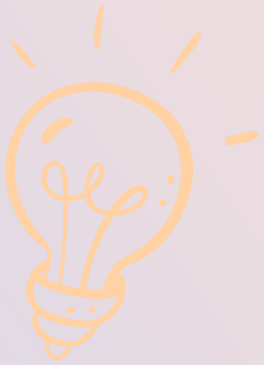


"**Unncap**, a company which aimed at unlocking the potential of freshers and professionals by providing them opportunities to enhance their productivity and deliverables by keeping pace with new technologies and skilling opportunities, has now collaborated with the prestigious **E&ICT Academy, IIT Guwahati** which undoubtedly represents a transformative step in the educational landscape, blending academic rigor with innovative technology.

This collaboration aims to leverage the IIT's cutting-edge research and expertise with the EdTech company's dynamic platforms and digital tools. Together, we are confident that we can develop customized learning solutions that will cater to diverse student needs, enhancing accessibility and engagement.

Furthermore, this partnership could facilitate real-world projects and internships, bridging the gap between theoretical knowledge and practical application. Ultimately, this alliance not only aims to elevate educational standards but also prepares students to thrive in a rapidly evolving job market. Through shared resources and a commitment to innovation, they are poised to redefine how education is delivered and experienced."





\$4.7B+

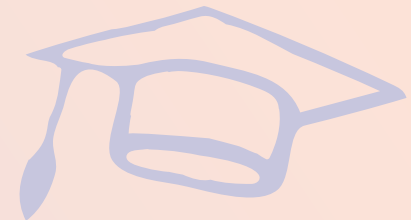
Indian Cybersecurity
Market Size



Importance of

Data Science & Machine Learning Program

The Executive Program in Data Science & Machine Learning is becoming increasingly critical in India's digital landscape, with the market projected to reach around **\$16 billion by 2025**. The country experienced a **62% increase** in data science job openings in 2023, driven by industries like e-commerce, finance, and healthcare. As businesses increasingly rely on data-driven insights, this program equips professionals with essential skills in data analysis, machine learning, and AI. **India's government is also investing in data initiatives, fostering innovation and growth in this field**, making this program highly relevant for aspiring data leaders.





Advanced Certification in Data Science and Machine Learning

The Advanced Certification in Data Science & Machine Learning is an exciting program designed for individuals who want to take their knowledge in these vital fields to the next level. As more companies use data to make smarter decisions, the need for skilled professionals who can analyze data and apply machine learning techniques is growing rapidly.

In this course, you will explore advanced topics like predictive analytics, natural language processing, deep learning, and data mining. You'll gain hands-on experience with popular programming languages such as Python and R, along with tools like TensorFlow and PyTorch. The curriculum focuses on practical applications, allowing you to work on real-world projects that reflect the challenges faced by businesses today.

By the end of the program, you will have built a strong portfolio showcasing your skills and projects, making you more attractive to employers in various industries, including finance, healthcare, and technology. Whether you're looking to advance in your current job or switch careers, the Advanced Certification in Data Science & Machine Learning equips you with the knowledge and experience needed to succeed. Join us to unlock new opportunities and make a meaningful impact in the world of data and machine learning!



Capstone Project

In this module, you will learn how to prevent a web application from being hacked as well as what key points to be considered for making an web application secure. This capstone project will give you exposure of both blue team and red team work profile and help you gain exposure on both the sides.



Module: 1

PYTHON PROGRAMMING

- Intro to programming & python
- Datatypes
- Operators
- Expressions
- Conditionals
- Loops
- Functions
- Recursion
- OOPS Concepts
- Data Structures
- Numpy
- Pandas
- Error Handling
- Scikit-learn library



Module: 2

MATHEMATICS FOR DATA SCIENCE

- Linear Algebra
- Calculus
- Statistics & Probability
- Linear Regression & Outlier Rejection
- Optimization and its techniques/types
- Constrained and Unconstrained Optimization
- Basics of Mathematical Preliminaries
- Stochastic Search
- PSO and Genetic Algorithm

Module: 3

INTRODUCTION TO ML & DIMENSIONALITY REDUCTION

- Introduction to Machine Learning
- Feature Selection
- Hashing
- Principal Component Analysis(PCA)
- Discriminant Functions
- Linear Discriminant Analysis(LDA)
- Exploratory Factor Analysis(EFA)



Module: 4

UNSUPERVISED LEARNING, GENERATIVE MODELS AND PATTERN DISCOVERY

- Introduction to Unsupervised Learning
- Spherical K-Means and Incremental Clustering
- K-Means Clustering
- Hierarchical Agglomerative Clustering and DBSCAN
- Mean-shift Clustering
- Estimation Theory
- PLSA & Sequence Mining
- Association Mining Rule
- Hidden Markov Model (HMM)

Module: 5

SUPERVISED LEARNING AND DISCRIMINATIVE MODELS

- Introduction To Supervised Learning
- Bayesian Classification and Performance Analysis
- Logistics Regression
- Perceptron
- Multilayer Perceptron
- MLP: Backpropagation and Applications
- K-NN and RBF, ANN
- Data Balancing Techniques And Applications
- Classification and Regression Trees
- Decision Trees and Random Forest
- Support Vector Machines (SVM)
- Bootstrapping and Boosting



Module: 6

MACHINE LEARNING & CLOUD

- Cloud fundamentals
- ML tools on Cloud (AWS, Azure, GCP)
- Deploying ML project on cloud



Module: 7

DEEP LEARNING

- Introduction to Deep Neural Network
- Convolutional Neural Network
- Implementation of ConvNet/CNN from scratch
- Convolutional Neural Network (ConvNet/CNN)
- Architectures ConvNet/CNN Demonstration

Module: 8

SPEECH, VISION, NLP

- Image Processing using OpenCV
- Signal Processing
- SciPy
- Introduction to Natural Language Processing (NLP)
- Language Models
- Vector Semantics
- Neural Models for NLP
- NLP Libraries

Module: 9

CAREER SERVICES & CAPSTONE PRESENTATION

- Resume Building
- Interview preparation workshop
- Capstone Project





Objectives

The main objectives of this scheme are given below:

- To provide judicious mix of skills relating to a profession with appropriate content of general education.
- To ensure that the students have adequate knowledge and skills, so that they are job ready at each exit point of the programme.
- To provide flexibility to students by means of pre-defined entry and multiple exit points.
- To integrate NSQF within the undergraduate level of higher education in order to enhance employability of the graduates and meet industry requirements. Such graduates apart from meeting the needs of local and national industry are also expected to be equipped to become part of the global workforce.
- To provide vertical mobility to students coming out of (a) 10+2 with vocational subjects; and (b) Community Colleges.



Why Choose Unncap



We Offer The Best Career:

Specialized Education: Unncap focuses on specialized products for providing certification and job placement support in the aviation industry, ensuring a targeted and effective learning experience.

1400+

Placements in 2024



200+

Hiring partners onboard

1.7 lac+

Highest monthly CTC offered

Industry Expert Instructor

Industry expert instructors are the pinnacle of knowledge and experience in their fields. They offer practical insights that empower learners. As mentors, they provide guidance and support, helping students navigate career paths.

Up-to-Date Course Content

In today's rapidly evolving industries, staying relevant is paramount. Our courses, curated by industry experts, offer cutting-edge content that reflects the latest trends and innovations. With up-to-date course content, you'll be prepared to tackle challenges head-on.

Biggest Student Community

Welcome to our vibrant student community, where learning knows no bounds! Join thousands of passionate learners from around the globe in our expansive network. Whether you're seeking academic support, networking opportunities, or simply a place to connect with like-minded peers.

256+

Free Video

95%

Students placed in different companies

9/10

Students rating all over course curriculum

20k

Trained Students

Career Assistance Services:

We are Proud of Our Students

UNNCAP has placed thousands of students in various **top companies** like:



accenture

Tech
Mahindra

Walmart

Cognizant

IBM

amazon

xerox

ESPN

Microsoft

Myntra

Flipkart

Capgemini

NETFLIX

Adobe

Jio

OLA

hp



Students Success Stories:



4.9

2,490+ Website Reviews



Priya Patel

Student

Unncap's Advanced Certification in Cyber Security is fantastic! The course content is engaging and relevant. I appreciate the flexibility of online learning and the platform's user-friendly interface. The course materials and assignments are well-structured. Highly recommend!



Rahul Sharma

Student

Loved the Executive Program in Data Science & Artificial Intelligence on unncap! The video tutorials were clear and engaging. The practice tests really helped prepare me for the interview. The course material was comprehensive and up-to-date. Highly recommend it to anyone.



Nisha Singh

Student

The Aviation Cabin Crew Course offered by Unncap is top-notch. The faculty's industry experience and the practical training facilities are excellent. Highly recommended for those interested in Aviation Cabin Crew Course.



Neha Bisht

Student

Studying Airport Management & Customer Service Program at Unncap was a fantastic experience. The curriculum was comprehensive, covering everything from airport operations to airport management. Ideal for aspiring aviation professionals!



Aryan Kumar

Student

I enrolled in the German Language Proficiency course at Unncap to improve my communication skills. The course structure was well-planned, and the trainers were supportive. I noticed a significant improvement in my fluency and confidence.



Naman Sahu

Student

The Advanced Certification in Cyber Security Course on unncap is fantastic! The course content is engaging and relevant. I love how the platform makes learning interactive. The flexibility to study at my own pace is a huge plus. Highly recommend!



Eligibility

- Graduation Students
- Basic knowledge of English
- Having a pleasing personality
- Selection will be on basis of personal interviews

Prerequisites :

Graduate

Duration :

9 Months

Program Fee

Program Fee

₹2,25,000/- Inclusive of all taxes



Contact Us

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<https://x.com/unncap7>

