

Artificial Intelligence Training + Certification

Learning Collaborations



Global Certifications



Intro to the **Artificial Intelligence Program**

Artificial intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions.

It is the simulation of natural intelligence in machines that are programmed to learn and mimic the actions of humans. These machines are able to learn with experience and perform human-like tasks. As technologies such as AI continue to grow, they will have a great impact on our quality of life.

Artificial intelligence (AI) is one of the top tech fields to be in right now!

Financial institutions, legal institutions, media companies, and insurance companies are all figuring out ways to use artificial intelligence (ai) to their advantage. From fraud detection to writing news stories with natural language processing(NLP) and reviewing law briefs, AI's reach is extensive.

This course solves a key problem which is making AI available to anyone with no coding background or computer science degree. The purpose of this course is to provide you with knowledge of key aspects of modern AI without any intimidating mathematics and in a practical, easy, and fun way. The course provides students with practical hands-on experience using real-world datasets.

About the **Artificial Intelligence Certification**

This course is designed for clearing the TechVidya Artificial Intelligence Certification. The entire course content is in line with the certification program and helps you clear the certification exam with ease and get the best jobs in top MNCs.

As part of this training, you will be working on real-time projects and assignments that have immense implications in the real-world industry scenarios.

At the end of this program, there will be a assessment that perfectly reflects the type of questions asked in the certification exam and helps you score better marks.

TechVidya Course Completion Certificate will be awarded upon the completion of the project work and upon scoring at least 60% marks in the final assessment.

Prerequisites of the **Artificial Intelligence Program**

- This course assumes no previous experience, and takes you from the absolute beginner concepts and then goes into more detail. Basic programming skill & scripting experience in any language is required.

Modules covered under Artificial Intelligence Program

Module 1: Introduction to Artificial Intelligence

- Basic Concept of Artificial Intelligence (AI)
- The Necessity of Learning AI
- What is Intelligence?
- What is Intelligence Composed Of?
- Learning – I
- What's Involved in AI
- Application of AI
- Cognitive Modeling: Simulating Human Thinking Procedure
- Agent & Environment

Module 2: AI with Python Getting Started

- Why Python for AI
- Features of Python
- Installing Python
- Setting up PATH
- Running Python
- Script from the Command-line
- Integrated Development Environment

Module 3: AI with Python – Machine Learning

- Types of Machine Learning (ML)
- Most Common Machine Learning Algorithms

Module 4: AI with Python – Data Preparation

- Preprocessing the Data
- Techniques for Data Preprocessing
- Labeling the Data

Modules covered under Artificial Intelligence Program

Module 5: AI with Python – Supervised Learning: Classification

- Steps for Building a Classifier in Python Building Classifier in Python
- Logistic Regression
- Decision Tree Classifier
- Random Forest Classifier
- Performance of a classifier
- Class Imbalance Problem
- Ensemble Techniques

Module 6: AI with Python – Supervised Learning: Regression

- Building Regressors in Python

Module 7: AI with Python – Logic Programming

- How to Solve Problems with Logic Programming Installing Useful Packages
- Examples of Logic Programming
- Checking for Prime Numbers
- Solving Puzzles

Module 8: AI with Python – Unsupervised Learning: Clustering

- What is Clustering?
- Algorithms for Clustering the Data
- Measuring the Clustering Performance
- Calculating Silhouette Score
- Finding Nearest Neighbors
- K-Nearest Neighbors Classifier

Modules covered under Artificial Intelligence Program

Module 9: AI with Python – Natural Language Processing

- Components of NLP
- Difficulties in NLU
- NLP Terminology
- Steps in NLP

Module 10: AI with Python – NLTK package

- Importing NLTK
- Downloading NLTK's Data
- Installing Other Necessary Packages
- Concept of Tokenization, Stemming, and Lemmatization
- Chunking: Dividing Data into Chunks
- Types of chunking
- Bag of Word (BoW) Model
- Concept of the Statistics
- Building a Bag of Words Model in NLTK
- Solving Problems
- Topic Modeling: Identifying Patterns in Text Data
- Algorithms for Topic Modeling

Module 11: AI with Python – Analyzing Time Series Data

- Introduction
- Installing Useful Packages
- Pandas: Handling, Slicing and Extracting Statistic from Time Series Data
- Extracting Statistic from Time Series Data Analyzing Sequential Data by Hidden Markov Model (HMM) Example: Analysis of Stock Market data

Modules covered under Artificial Intelligence Program

Module 12 : AI with Python – Speech Recognition

- Building a Speech Recognizer
- Visualizing Audio Signals - Reading from a File and Working on it
- Characterizing the Audio Signal: Transforming to Frequency Domain
- Generating Monotone Audio Signal
- Feature Extraction from Speech
- Recognition of Spoken Words

Module 13 : AI with Python – Heuristic Search

- Concept of Heuristic Search in AI
- Difference between Uninformed and Informed Search
- Real World Problem Solved by Constraint Satisfaction
- AI with Python – Gaming
- Search Algorithms
- Combinational Search
- Minimax Algorithm
- Alpha-Beta Pruning
- Negamax Algorithm
- Building Bots to Play Games
- A Bot to Play Last Coin Standing
- A Bot to Play Tic Tac Toe

Module 14 : AI with Python – Neural Networks

- What is Artificial Neural Networks (ANN)
- Installing Useful Packages
- Building Neural Networks
- Perceptron based Classifier
- Single - Layer Neural Networks
- Multi-Layer Neural Networks

Modules covered under Artificial Intelligence Program

Module 15 : AI with Python – Reinforcement Learning

- Basics of Reinforcement Learning
- Building Blocks: Environment and Agent
- Constructing an Environment with Python
- Constructing a learning agent with Python

Module 16 : AI with Python – Genetic Algorithms

- What are Genetic Algorithms?
- How to Use GA for Optimization Problems?
- Installing Necessary Packages
- Implementing Solutions using Genetic Algorithms
- AI with Python – Computer Vision
- Computer Vision
- Computer Vision Vs Image Processing
- Installing Useful Packages
- Reading, Writing and Displaying an Image
- Color Space Conversion
- Edge Detection
- Face Detection
- Eye Detection

Module 17 : AI with Python – Deep Learning

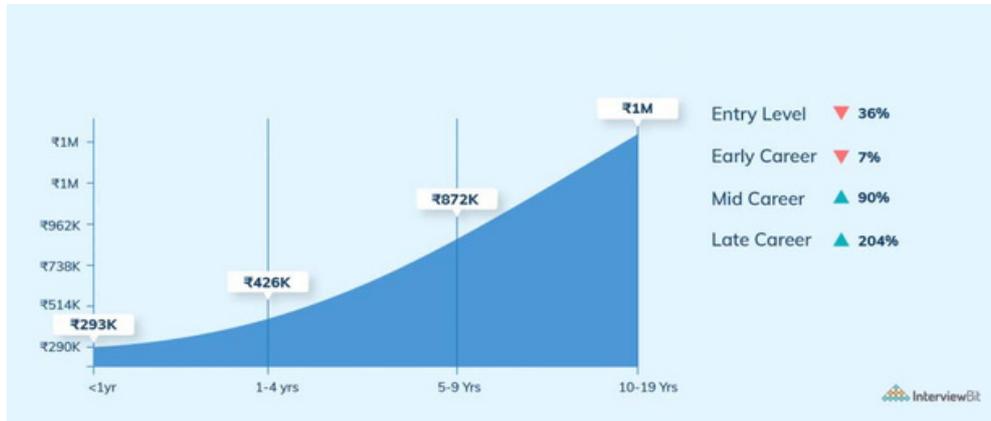
- Machine Learning v/s Deep Learning
- Convolutional Neural Network (CNN)
- Installing Useful Python Packages
- Building Linear Regressor using ANN
- Image Classifier: An Application of Deep Learning

Modules covered under **Artificial Intelligence Program**

Module 18 : Project & Interview Preparation

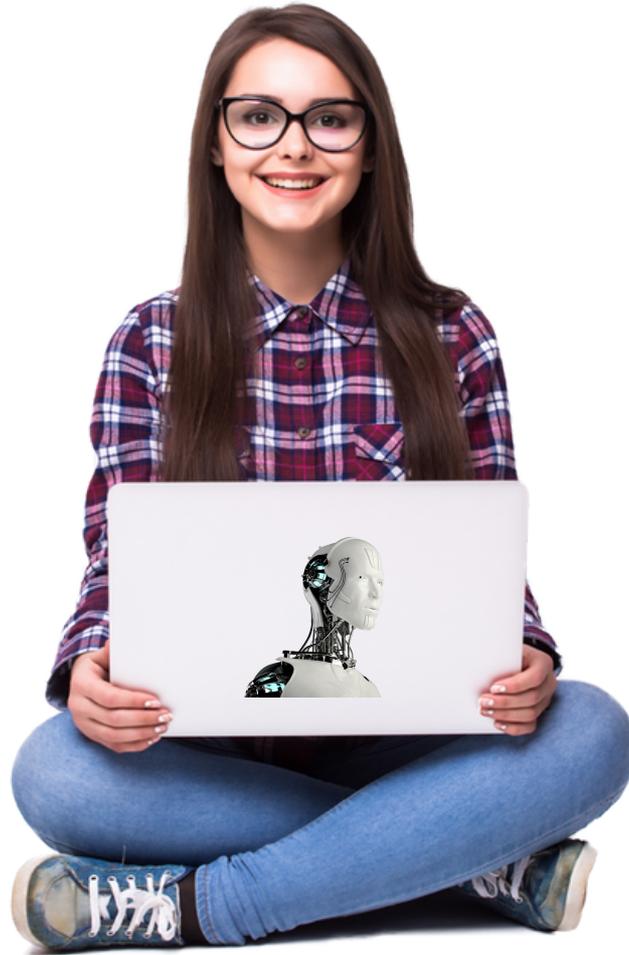
- Project Work
- PD Classes
- Resume Preparation
- Interview Question Preparation

Benefits as Artificial Intelligence



Our Training Benefits as Artificial Intelligence Program

- Our complete training is constructed as per the current industry standard.
- Live Project & Industrial Based Training.
- One of the biggest team of Certified Expert & Competent Trainers.
- Easy to understand study material.
- Regular and Weekends classes for IT & Software training is provided.
- Interaction, analysis and case studies are an integral part of the training.
- Smart Labs with Real Latest Equipments.
- Students are free to access the labs for an unlimited number of hours
- Free Study Material, e-PDFs, Video Trainings, Sample Questions.
- Globally Recognized Course Completion Certificate.
- The ability to retake the class at no-charge as often as desired.
- One-on-One attention from instructors.
- Helps students to take knowledge of complex technical concepts.
- Post Training Support will help the students.
- Personality Development & Interview Preparation classes.
- 100% Job Assistance with dedicated training & placement team.



Join One of the Best Artificial Intelligence Training Institute in India

(In-Class & Live Online Training by Industry Experts)



5740+
Batches Completed



68806+
Students Trained



470+
Skilled Instructors



Our Latest Reviews



Hi All, I am Shilpa and i have done my Certification from TechVidya. The study environment is good and trainers are full of knowledge. I personally recommend TechVidya Institute to all the students who looking for quality education and sincere about there future.

I am grateful to TechVidya - both the faculty and the Training & Placement Department. They've made efforts ensuring maximum number of placed students. The Institute started grooming us for placements in the first few months including courses such as Professional Excellence Program and Professional Skills Enhancement. I suggest to join TechVidya which comes under top 10 IT & Software training institute.



Hi I am Amit Kumar and my Enrollment ID with TechVidya is TV230967. I completed my Certification from TechVidya. They provides IT & Software courses in more practical & real scenario basis. Complete project based training help me to sharpen my technical skills.

TechVidya has always believed in helping and guiding its students and it was no different during the placement time. Regular classes held to help us with our aptitude and technical skills. Recommend to all the students who looking for best computer classes with quality education. Thanks TechVidya for explore my career.



RECORD BREAKING PLACEMENTS 100% JOB PLACEMENT ASSISTANCE

MEET OUR PLACED STUDENTS



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Career Assistance Services



-  **Career Oriented Sessions**  Throughout the Course
-  **Resume & LinkedIn Profile Building**  After 70% of the Course Completion
-  **Mock Interview Preparation**  After 80% of the Course Completion

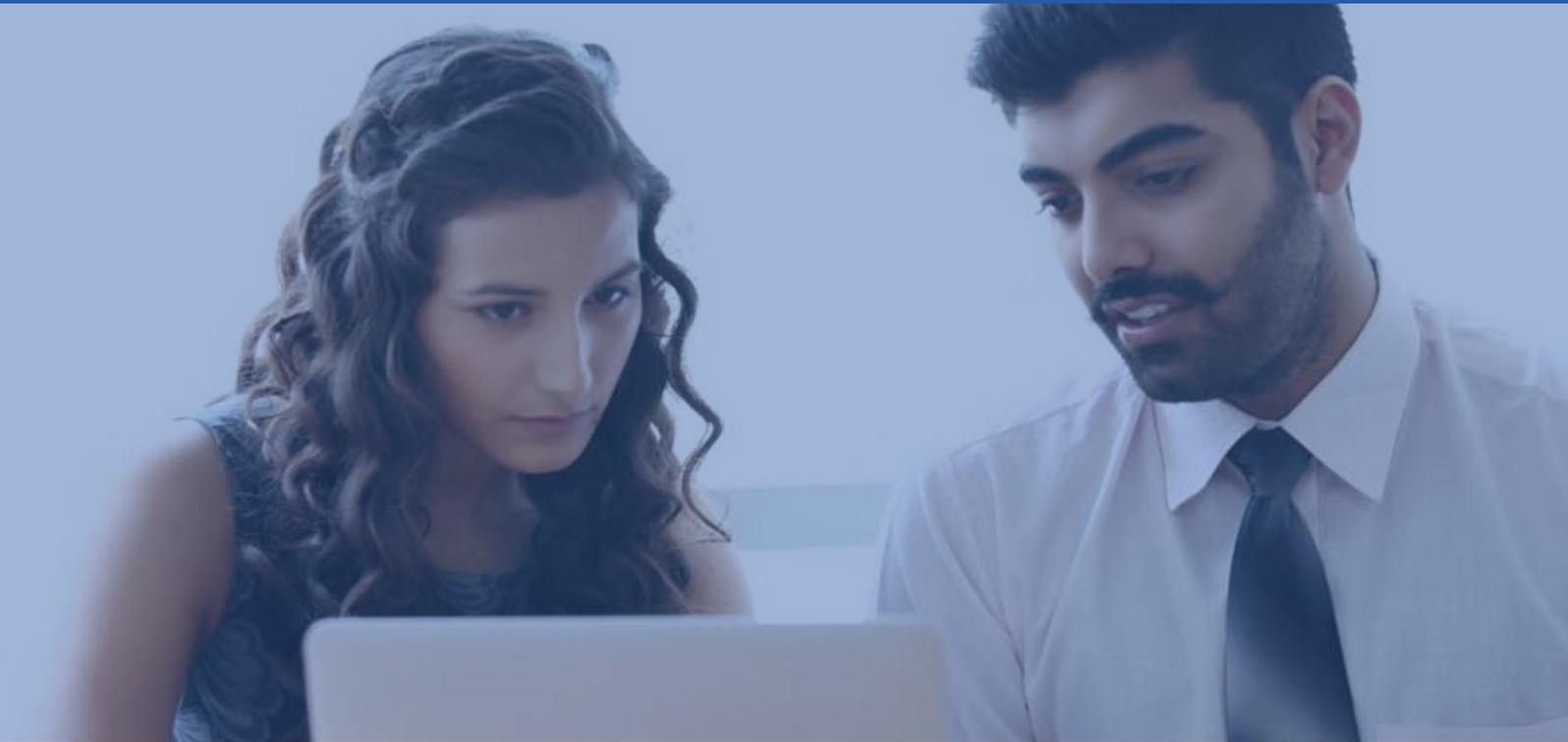
-  **1 on 1 Career Mentoring Sessions**  After 90% of the Course Completion
-  **Assured Interviews**  After 90% of the Course Completion
-  **1 Year Placement Assistance**  After 100% of the Course Completion





Our Top Placement Partners





TechVidya In News



08-Jan

ET Now- Startup Central

TIMESNOWNEWS.COM

22-Dec

What skills in demand & how should upgrade?

THE HINDU
BusinessLine

14-Nov

Turning executive education into class act

EducationTIMES
EST. ESTABLISHED

30-Sep

TechVidya Campaign
#StayUpdatedStayAhead



02-Sep

How TechVidya enhance learning experience

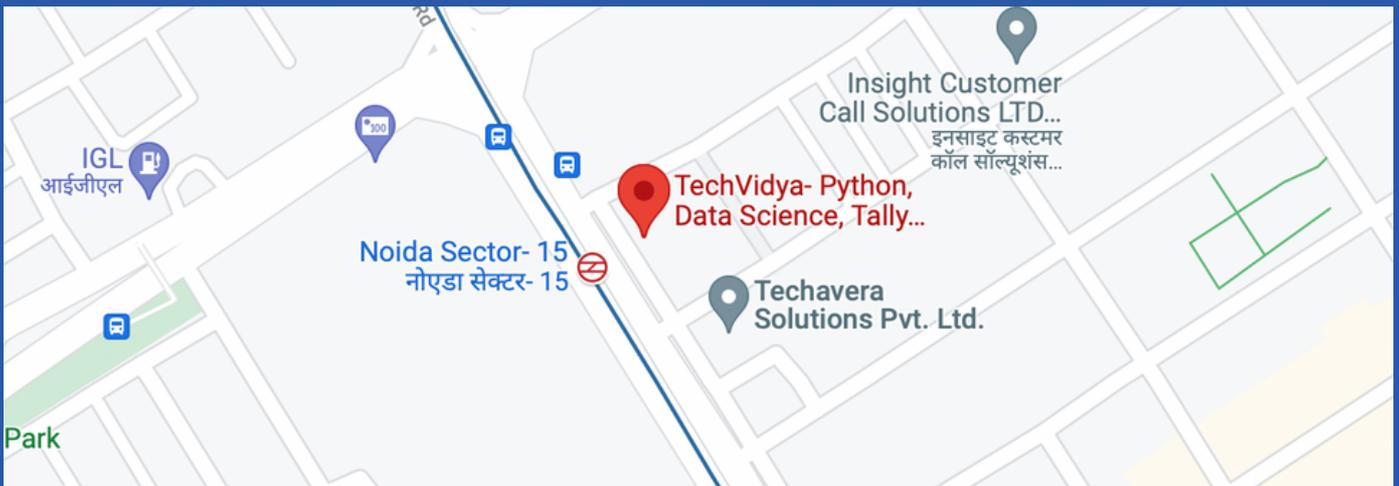
THE ECONOMIC TIMES

16-Jun

The journey of an EduTech Company



Contact Us



Address:

TechVidya Career Private Limited
A-78, Ground Floor
Sector-2, Noida, Uttar Pradesh
Landmark: Front of Metro Sec-15

Number & Mail ID:

+91 83759 66700
+91 98714 38701
Email: info@techvidya.education
www.techvidya.education



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