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ARTIFICIAL INTELLIGENCE
COURSES

Build skills for the future!

Why Artificial Intelligence Matters to the Youth

There's no better time than now to hop on the bandwagon and prepare for a fulfilling future career in AI and ML. Artificial Intelligence and Machine Learning has been increasing in footprint and grabbing eyeballs across industries. A growing number of companies are using these technologies to improve their products and services, evaluate their business models, and enhance their decision-making process.

Artificial Intelligence courses help to guide and create specialists with the ability to dream up and bring to life intelligent machines and systems which perform tasks that would typically require human intelligence, including playing games or recognising faces or understanding natural language.

Today, AI is everywhere– whether in the form of chess-playing computers or self-driving cars. These systems rely on neural networks, deep learning, and natural language processing to analyse large amounts of data, find patterns, and make predictions and decisions based on relevant information. Naturally, they become powerful beacons of information-rich societies that are always one step ahead.

Machine Learning is a more specialised subdiscipline of Artificial Intelligence. ML courses teach students how to use algorithms and statistical models to create computer systems which can learn for themselves. This means freeing up human intelligence for higher-order thinking, which in turn means more fulfilled societies who put their intelligence to work.

Benefits to Students from AI and ML Courses

Businesses around the world are increasing AI budgets around research, development and applications at unprecedented levels. Gartner predicts the business value created by AI to touch $3.9T by 2022. According to IDC, the worldwide spending on cognitive and Artificial Intelligence systems would reach $77.6B by 2022.

These, and many other related developments in AI adoption, offer enormous opportunities to young graduates passing out of higher education now and in the near future. However, a fulfilling future starts with a solid foundation. To that end, Modo's AI Foundation, AI Machine Learning, robotics and IoT courses enable students to land meaningful placements in great companies and contribute to futuristic growth.

Here's what's in store for students in AI courses:

Benefit # 1: You'll learn the skill of the century

AI might be set to replace many lower-level jobs that humans perform. However, it is also creating more 130 million roles in major industrial sectors, ranging from healthcare to travel, banking to automotive, manufacturing to retail, fashion to finance. To be a part of this transformation as a student, you'll benefit from getting one foot in the door through a course that teaches you the skills of the century.

machine learning algorithms to retrieve a behavioural pattern; information that could transform into powerful insights. Industry 4.0 is already data-powered, and companies are on the lookout for data engineers with AI experience who can create order from chaos and help them win their races.

Benefit # 4:
You'll prepare for a big career ahead

Pursuing a career in AI not only guarantees the student a higher salary but also a great pool of opportunities. The average pay scale of an AI professional is INR 15 lakhs per annum in India. With a background in AI, students could become a Machine Learning Engineer, Software Engineer, Hardware Engineer, Research Engineer, Business Intelligence Developer, and Data Scientist. Some of the big companies that hire AI candidates are Google, Amazon, Nokia, and Microsoft. Smaller tech-first companies are also on the lookout for qualified pros to disrupt the status quo– so you'll be in good company!

Benefit # 5:
You'll fit in any industry

AI is not restricted to computer or space-related industries but has a significant role to play in industries including banking, healthcare, travel, automotive, retail, security, mobile and fraud detection. The list is endless, and so are the pool of opportunities you'll uncover. AI is still growing, and it only gets better as it offers many competitive benefits in all sectors of business.

Benefit # 2:
You'll find relevance today

Today, there's no domain that AI hasn't secured a spot in. In retail, thanks to increased mobile and internet penetration, customers get personalised information without visiting the store, through chatbots. The automobile industry has already designed cars that are driverless or "self-driving", many of which have already hit the roads. And at home, we "Ok Google" our way through many basic tasks, from playing music and dimming lights to retrieving information and warding off intruders. The reality is businesses are going to need many talented young engineers and AI specialists to build these products and maintain them– and you can join the list.

Benefit # 3:
You'll cut through the data noise

Humans generate more than 2.5 quintillion bytes of data every day (imagine the number of zeroes!). This data comes from everywhere– what we see, what we read, what we search for and what we say. We feed the collected data to

Why Modo's AI & Machine Learning Course

Industry expert-designed curriculum

Curated content made available through the cloud

Industry connect through workshops and online sessions

Challenges, assessments and course completion certificates

Handpicked tutors based on qualification and experience

Course # 1: AI Foundation

Course Content:
• Introduction to data analysis using Python
• Use of Matplotlib library for graphical representations
• File handling capabilities
• Game development using PyGame library
• Object recognition – objects, animals, objects from videos using OpenCV
• Speech recognition
• Handwriting recognition

Who will benefit? This course is ideal for any student completing their undergraduate or postgraduate degree who is keen to explore the world of Artificial Intelligence through coding.

Project Outcome:
• Graphical representation of data analysis
• Know of game development
• Projects in Object recognition, speech recognition and handwriting recognition
• Techniques for colour separation in videos and pics

Capstone project: Drive a car on a created track with steering controls and racing within the track boundary; Competing with a self-driven and system driven car

Duration: 30 Hours

Minimum attendance expectation: 80%

Prior skills requirement: Basic Python coding skills or must have completed the 'Python Primer' course.

Course # 2:
AI Machine Learning

Course Content:
• Introduction to data analysis using Python
• Use of Matplotlib library for graphical representations
• File handling capabilities
• Game development using PyGame library
• Object recognition – objects, animals, objects from videos using OpenCV
• Speech recognition
• Handwriting recognition
• XML file handling protocols
• JSON file handling
•Introduction to Data Science and Big Data using ApacheSpark
• Data Science Process
      o Discovery, Data preparation, Model Planning, Model Building, Operationalise
      o Results formulation
• Intro to Machine learning
• Scikit library and usage
• Supervised Learning – Classification, Regression models
• Un-Supervised Learning – Clustering, Dimensionality Reduction models
• Prediction and forecasting from the ML models
• High level views on other emerging ML models

Who will benefit? This course is ideal for any student completing their undergraduate or postgraduate degree who is keen to pursue a career in the growing field of Artificial Intelligence and Machine Learning.

Project Outcome:
• Projects in Data science
• Prediction and Forecasting patterns in weather, stock markets, in recent Covid pandemic,
• Probability of an event happening
• Arriving in Real-time decisions
• Creating customer segmentation, sales forecasting
• Sentiment Analyser

Duration: 60 Hours
Minimum attendance expectation: 80%
Prior skills requirement: Basic Python coding skills or must have completed the 'Python Primer' course.

Course # 3:
Internet of Things

Course Content:
• Concept of IoT
• Introduction to the world of sensors
• Interconnectedness and automation through algorithms
• Focus on user interface in IoT applications
• Understanding Cloud Infrastructure
• Handling real time data and Data flow Analysis (from various sensors)
• End point management
• Examples of leading IoT solutions provided in verticals like Manufacturing, sales, Inventory, Agriculture, Defence, Health, Research, etc.
• Emergence of smart cities and smart industries
• Evolution in ML through Real-time IoT data
• Challenges in IoT projects
• IoT – Best practices

Who will benefit? The course is ideal for any student completing their undergraduate or postgraduate degree who is keen to understand the workings of IoT with simplified sensors, algorithms, development boards.

Project Outcome:
• Irrigation based project
• Security surveillance system
• Automated Inventory system
• Smart car parking
• Exposure to various platforms like Arduino, Raspberry Pi

Duration: 30 Hours
Minimum attendance expectation: 80%

Prior skills requirement: Basic Python coding skills or must have completed the 'Python Primer' course.

Course # 4: Python Primer For Beginners

Course Content:
• Introduction to Python
• Strings, Lists and Tuples
• Dictionaries and Sets
• Conditional Execution & Loops
• Comprehensions
• Functions
• Modules
• Scopes and Namespaces

Who will benefit? The course is ideal for any student interested in learning beginner-level Python coding.

Project Outcome:
• As part of the course, lots of hands-on exercises to understand Python
• Air ticketing
• Inventory management
• Shopping Cart
• Password encryption/decryption

Duration: 20 Hours
Minimum attendance expectation: 100%

Prior skills requirement: None

Course # 5: Python Intermediate

Course Content:
• Python Basic Refresher and exercises
• File Handling
• Object Oriented Programming in Python
• Iterator, Generator, Decorators
• Constructors
• Lambda Expressions
• Regex
• Closures
• List comprehensions
•XML processing

Who will benefit? The course is ideal for any student interested in learning intermediate-level Python coding.

Project Outcome:
• As part of the course, lots of hands-on exercises to understand Python
• Content Summariser
• Encrypter and Decrypter
• Hangman
• Invisibility Cloak
• Shuffle card game
• Story Generator

Duration: 30 Hours
Minimum attendance expectation: 100%

Prior skills requirement: Basic Python coding skills or must have completed the 'Python Primer' course.

ABOUT MODO

Modo is a new-age educational organisation with an aim to develop futuristic, career-building skills among India's youth. We envision a world where our students go on to solve big problems using technology and create significant innovations that impact human lives.

Modo's leadership team is comprised of industry professionals and experienced tutors from various sectors such as education, IT, services, automotive, aviation, digital production.

MODO'S 12 AREAS OF TEACHING COMPETENCIES
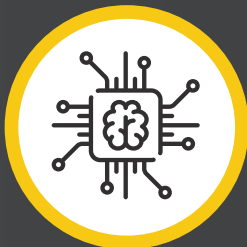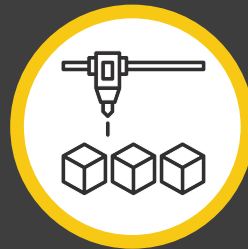
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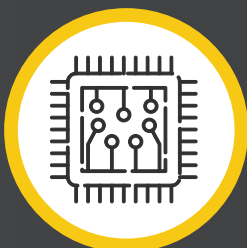
Machine Learning

Coding

Data Science
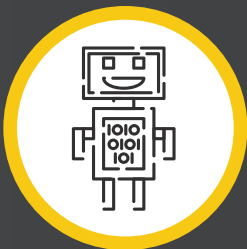
Robotics

Mobile Applications

3D Printing

Drones

IOT

Augment Reality

Virtual Reality

Blockchain