Fast-forward your Career with market-relevant "Certified AI Courses" from the best in the Industry

PROJECT BASED MACHINE LEARNING WITH PYTHON

Machine Learning is field of computer science that uses statistical techniques to give computer systems the ability to learn with Data without explicitly being programmed. This course exposes you to different classes of machine learning algorithms like supervised, unsupervised and reinforcement algorithms. This course imparts you the necessary skills and practical exposure on skillsets like data pre-processing, dimensional reduction, model evaluation and also exposes you to different machine learning algorithms like regression, clustering, decision trees, random forest, Naive Bayes and Q-Learning.

6
MODULES

25
INSTRUCTOR LED SESSIONS

6
ASSIGNMENTS

2
PROJECTS

This course is focused on building industry-ready professionals who can work on Machine Learning & it will provide in-depth understanding of Artificial Neural Networks, Data Analytics for Machine Learning and its mechanism. Furthermore, you will be provided with project based Learning which is an important to gain expertise in Artificial Intelligence. With this program, one will be able to automate real life scenarios using Machine Learning Algorithms. As part of the course, practical use cases of Machine Learning with Python programming language will be discussed for better & improved learning experience.

3 Months course

CERTIFICATION

"MACHINE LEARNING ANALYST"

PROGRAM HIGHLIGHTS

Especially developed in collaboration with academia & AI Industry experts to reskill and retool working professionals towards Artificial Intelligence space, this program offers the benefits of Experienced Faculty Led Sessions: Live-Interactive Online classes and practical exposure. Program content & structure designed in collaboration with faculty and Industry experts.

PROJECTS: Each student will get hands on practical experience in computer vision (CV) and Natural Language Processing (NLP).

ATIVITTI ADVANTAGE: Ativitti Interactive Digital Learning Platform ensures par excellence, quality education anytime in pervasive environment.

ACCESS TO LMS: You get access to Learning Management System (LMS) where presentations, quizzes, installation guide & class recordings are there.

24 X 7 EXPERT ONLINE: Support team to resolve all your technical queries

50 HOURS

PROGRAM CONTENT Machine Learning with Python

1 Introduction to Machine Learning
- Machine Learning Categories
- Supervised Learning
- Unsupervised Learning
- Reinforcement Learning
- Frameworks for Building
- Machine Learning Systems
- Machine Learning Python Packages

2 Data Analysis Packages
- NumPy.
- Pandas
- Matplotlib
- Machine Learning Core Libraries

3 Machine Learning Perspective of Data
- Dealing with Missing Data
- Handling Categorical Data
- Normalizing Data
- Feature Construction or Generation
- Exploratory Data Analysis
- Univariate Analysis.
- Multivariate Analysis.

4 Supervised Machine Learning
- Classification
- Collecting, preparing and exploring the data
- Regression
- Multivariate regression
- KNN algorithm
- Classification using Decision Trees and rules
- The naïve Bayes classification
- Preparing and exploring data
- Training a model on the data
- Evaluating the model performance
- Logistic Regression
- Support Vector Machine
- Artificial Neural Network

5 Unsupervised Machine Learning
- Clustering as a machine learning task
- Hierarchical Clustering
- K-means
- Finding Value of k
- Hierarchical Clustering
- Principal Component Analysis (PCA)
- Hidden Markov Model

6 Convolutional Neural Network
- Architecture of CNN
- Types of layers in CNN
- Building an image classifier using CNN
- Deep Learning with CNN

PROGRAM OUTCOME

On completion of the program, students will have developed a world-class skill set in their selected technology domain that provides "Employability Enhancing" skills and capabilities thereby substantially increasing their earning potential and compensation benchmarks.

Machine Learning with Python is designed by industry experts to make you a Certified Machine Learning Analyst/ Enginner. This course offers:

- Improved understanding of Machine Learning Engineer/Analyst roles
- Learning automation in Data Analysis
- Machine Learning Fundamentals & Crunching real-time data
- Learning Machine Learning algorithms and their practical implementation
- Machine Learning algorithms and their validation
- Predictive Modelling - tools and techniques and practical exposure to decision support system for business using predictive analytics techniques

CANDIDATES CAN EXPECT TO BE HIRED IN POSITIONS SUCH AS:

- → MACHINE LEARNING ENGINEER
- → MACHINE LEARNING ANALYST
- → DATA SCIENTIST
- → SOLUTION ARCHITECT (ARTIFICIAL INTELLIGENCE)

VITTI CERTIFICATION

On the payment of program and upon satisfying the requisite attendance and other evaluation criteria participants will be awarded a Certificate for completing course on "MACHINE LEARNING WITH PYTHON".

DR. A. K. SINHA

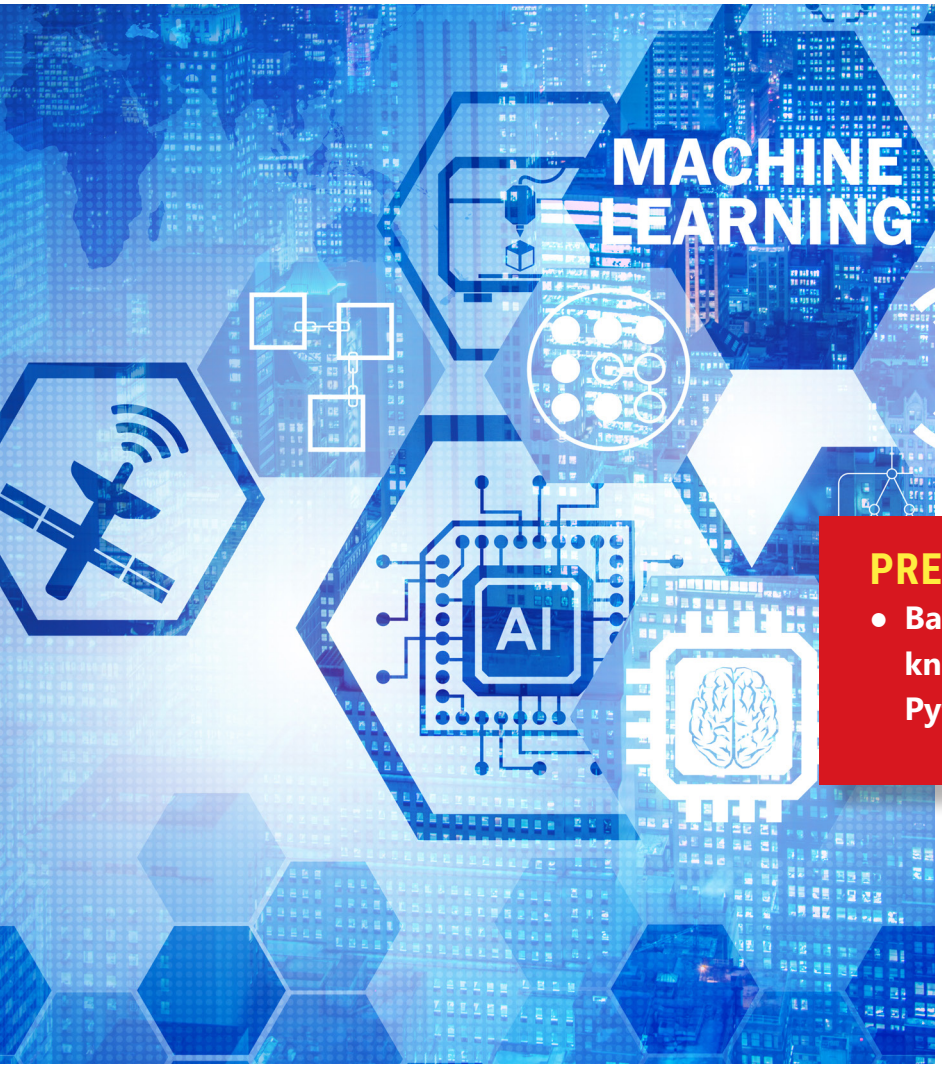
He holds Ph.D. degree in Systems Modeling from IIT Delhi. He has 35 years of teaching, research and consultancy experience. Guided 7 Ph.D. and more than 30 MTech. scholars.

DR. DEEPTI YADAV

She is an enthusiastic Data Scientist with 16 years of experience in teaching, research & consultancy and holds Ph.D. in machine learning based data analysis from IIT (Roorkee). Currently, she resides in Silicon Valley, USA and provides consultancy services.

KUNAL GERA

Kunal Gera, a profound data scientist with rich experience of 8+ years. with national and international exposure worked on multiple projects such as consumer analytics, credit card analytics, NLP implementation, spend analysis.



WHO SHOULD ATTEND

- Developers aspiring to be a 'Data Scientist' or "Machine Learning Engineer/Specialist"
- Business Analysts who want to understand Machine Learning (ML) Techniques
- Analytics Managers who are leading a team of Data & Business analysts
- Python professionals who would like to design predictive, prescriptive and cognitive models
- Information Architects who want to gain expertise and practical experience in Predictive Analytics

PRE-REQUISITES

- **Basic programming knowledge in Python**

PROGRAM DETAILS:

Duration: 3 months

SAMPLE CERTIFICATE

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