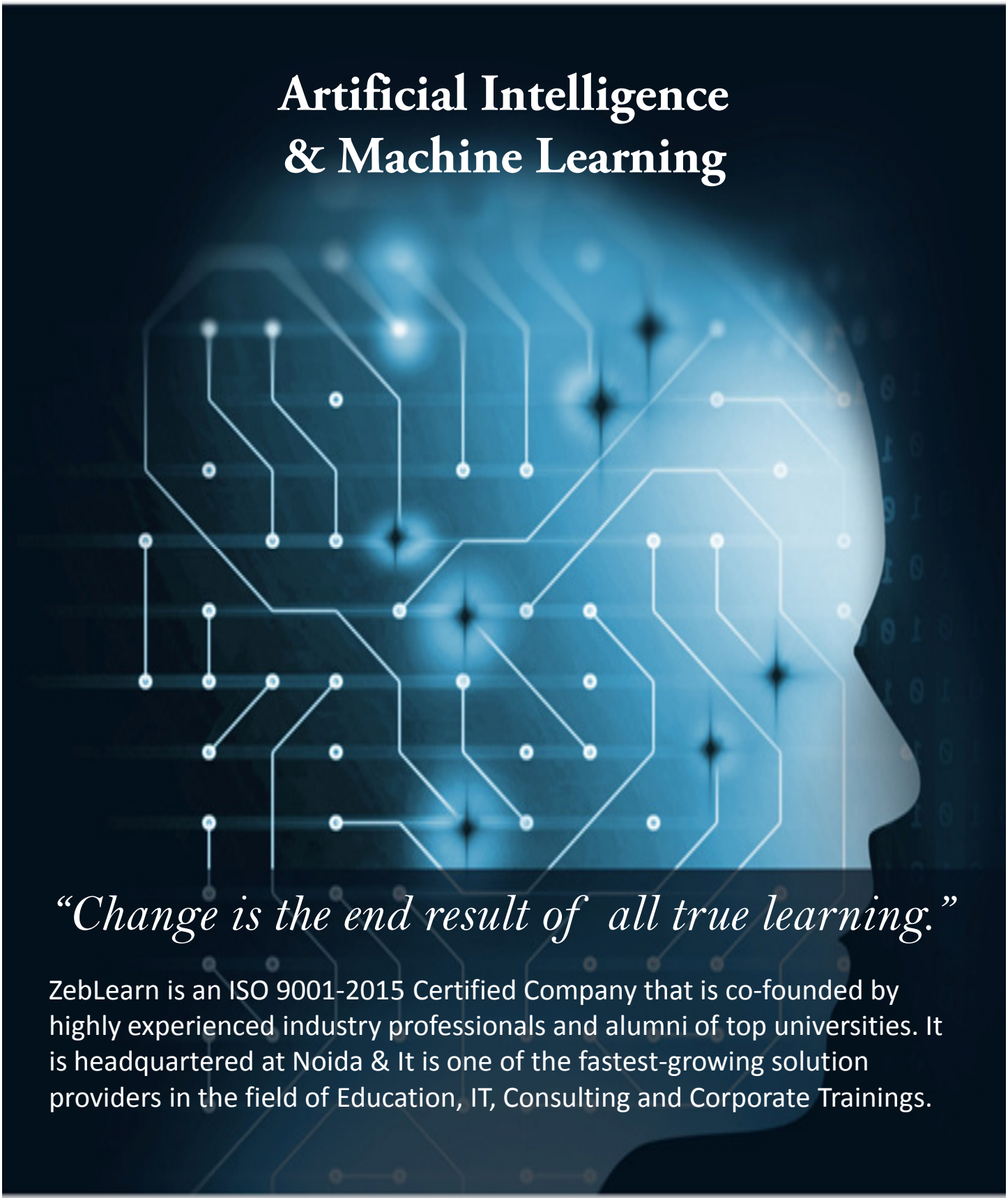
ZebLearn

Artificial Intelligence & Machine Learning



"Change is the end result of all true learning."

ZebLearn is an ISO 9001-2015 Certified Company that is co-founded by highly experienced industry professionals and alumni of top universities. It is headquartered at Noida & It is one of the fastest-growing solution providers in the field of Education, IT, Consulting and Corporate Trainings.

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Artificial Intelligence Syllabus

Artificial Intelligence Foundation

- Introduction To Artificial Intelligence (AI)
- AI Data Strategy
- AI Ethics
- Issues And Concerns
- AI Challenges
- Use Cases And Adoption

Tensorflow 2.X Platform

- Tensorflow Introduction
- Tensorflow Basic Concepts
- Installation And Basic Operations In Tf 2.X,Tf 2.0 Eager
- Mode, Tensorflow 2.X – Keras

Core Learning Algorithms

- Core Learning Algorithms Introduction
- Regression With Tensorflow
- Classification With Tensorflow

Neural Networks

- Structure Of Neural Networks,
- Neural Network - Core Concepts
- Feed Forward Algorithm
- Backpropagation
- Building Neural Network From Scratch Using Numpy

Artificial Intelligence Syllabus

Implementing Deep Neural Networks

- Introduction To Neural Networks With Tf2.X
- Simple Deep Learning Model In Keras (Tf2.X)
- Building Neural Network Model In Tf 2.0 For Mnist Dataset

Deep Computer Vision - Convolutional Neural Networks

- Convolutional Neural Networks (Cnns) Introduction
- Cnns With Keras
- Transfer Learning In Cnn
- Style Transfer, Flowers Dataset With Tf2.X
- Examining X-Ray With Cnn Model

Recurrent Neural Network

- Rnn Introduction
- Sequences With Rnns
- Long Short-Term Memory Networks (Lstm Rnns) And Gru
- Examples Of Rnn Applications

Natural Language Processing

- Natural Language Processing Introduction,
- NLP With Rnns
- Creating Model
- Transformers And Bert
- State Of Art Nlp And Projects

Artificial Intelligence Syllabus

Reinforcement Learning

- Markov Decision Process
- Fundamental Equations In R,
- Model Based Method
- Dynamic Programming Model Free Methods

Deep Reinforcement Learning

- Architectures Of Deep Q Learning
- Deep Q Learning
- Policy Gradient Methods

Generative Adversarial Network (Gan)

- Gan Introduction
- Core Concepts Of Gan
- Building Gan Model With Tensorflow 2.X
- Gan Applications

Machine Learning Syllabus

Introduction to Machine Learning

- Need of Machine Learning
- Introduction to Machine Learning
- Types of Machine Learning, such as supervised, unsupervised, and reinforcement learning, Machine Learning with Python, and the applications of Machine Learning

Supervised Learning and Linear Regression

- Introduction to supervised learning and the types of supervised learning, such as regression and classification
- Introduction to regression
- Simple linear regression
- Multiple linear regression and assumptions in linear regression
- Math behind linear regression

Classification and Logistic Regression

- Introduction to classification
- Linear regression vs logistic regression
- Math behind logistic regression, detailed formulas, the logit function and odds, confusion matrix and accuracy, true positive rate, false positive rate, and threshold evaluation with ROCR

Decision Tree and Random Forest

- Introduction to tree-based classification
- Understanding a decision tree, impurity function, entropy, and understanding the concept of information gain for the right split of node
- Understanding the concepts of information gain, impurity function, Gini index, overfitting, pruning, pre-pruning, post-pruning, and cost-complexity pruning
- Introduction to ensemble techniques, bagging, and random forests and finding out the right number of trees required in a random forest

Machine Learning Syllabus

Naïve Bayes and Support Vector Machine (self-paced)

- Introduction to probabilistic classifiers
- Understanding Naïve Bayes and math behind the Bayes theorem
- Understanding a support vector machine (SVM)
- Kernel functions in SVM and math behind SVM

Unsupervised Learning

- Types of unsupervised learning, such as clustering and dimensionality reduction, and the types of clustering
- Introduction to k-means clustering
- Math behind k-means
- Dimensionality reduction with PCA

Natural Language Processing and Text Mining (self-paced)

- Introduction to Natural Language Processing (NLP)
- Introduction to text mining
- Importance and applications of text mining
- How NPL works with text mining
- Writing and reading to word files
- Language Toolkit (NLTK) environment
- Text mining: Its cleaning, pre-processing, and text classification

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Machine Learning Syllabus

Introduction to Deep Learning

- Introduction to Deep Learning with neural networks
- Biological neural networks vs artificial neural networks
- Understanding perception learning algorithm, introduction to Deep Learning frameworks, and TensorFlow constants, variables, and place-holders

Time Series Analysis (self-paced)

- What is time series? Its techniques and applications
- Time series components
- Moving average, smoothing techniques, and exponential smoothing
- Univariate time series models
- Multivariate time series analysis
- ARIMA model and time series in Python
- Sentiment analysis in Python (Twitter sentiment analysis) and text analysis

Thanks you

Now or Never