

**Deep Learning with Python** 

## Who we are

Techeduxon has been a platform for global online technology education since 2015. We are now taking it up a notch higher by introducing ways of advanced learning to up-skill and cross-skill your profession with cutting-edge, customized programs. With our Top Tier IT & Enterprise training Courses, We enable you to the forefront & become 'Industry Ready' in this Advancing & Unforeseen Digital World with your up skill Innovations.

# **Course Overview**

- ✔ Fundamentals of Artificial Intelligence
- ✓ Machine Learning Fundamentals
- ✔ Python
- ✔ Python Modules
- ✔ Deep Learning
- ✓ Tensor Flow
- ✓ Keras
- ✓ Convolution Neural Networks (CNNs)
- ✓ Tensor Board
- ✓ Natural Language Processing (NLP)

### **Course Content**

# **Fundamentals of Artificial Intelligence**

- Introduction of AI
- What is AI?
- What provides to Artificial Intelligence?
- Programming with Artificial Intelligence
- Programming without Artificial Intelligence
- Applications of Artificial Intelligence
- Types of Artificial Intelligence

# **Machine Learning – Fundamentals**

- Introduction
- Applications & Uses of Machine Learning
- Types of Machine Learning & Algorithms
- Location of Distribution (Central Tendency)

# **Python**

- Purpose of Python for Machine Learning
- Outline & Installation of ANACONDA
- Jupiter Note Book
- Variables
- Comprehension Operations
- Objects & Functions
- Modules

# **Python Modules**

- Array manipulation using NumPy
- Data Analytics using Pandas
- Data Visualization using Matplotlib & Seaborn
- EDA (Exploratory Data Analysis)
- Regression and Classification of Sklearn & ML

## **Deep Learning**

- Introduction
- ANN (Artificial Neural Networks) & DNN (Deep neural Networks)
- CNN (Convolution Neural Networks) & DBN (Deep Belief Networks)
- RNN (Recurrent Neural Networks) & GAN (Generative Adversarial Networks)

### **Tensor Flow**

- Introduction
- Graphs
- Examples
- Data Structures
- Placeholders
- Create Neural Networks using Tensor Flow

#### **Keras**

- Introduction
- Comparisons b/w Keras & Tensor Flow
- Benefits of Keras
- Installing & Fundamentals of Keras
- Face Recognition Neural Networks with Keras

# **Convolution Neural Networks (CNNs)**

- Introduction
- Architecture
- Basic Components of CNNs

- Operations
- Construct CNN using Tensor Flow & Keras

#### **Tensor Board**

- Introduction
- Visualizing the Modules using Tensor Board
- PyTorch Module
- Adding Scalar & Scalars, Image and Images
- Adding Histogram

# **Natural Language Processing (NLP)**

- What is NLP & NLTK?
- Components of NLP
- Installation of NLP
- Tokenize words & Sentences with NLTK
- POS Tagging & Chunking with NLTK
- Stemming & Lemmatization with NLTK
- NLP applications
- Text summarization using NLP

# **Projects & Assignments**

Our Expert trainers will provide the real time Projects & Assignments.

