Deep Learning

Online Training

SPARK DATABOX

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Spark Databox is known to be a pre-eminent platform for software certificate training and career development. Through our mission, we are a pioneer or positive change, improve productivity, increase the workforce, and creating a career opportunity for everyone. We are India's #1 software training institute. Apart from receiving excellent live training you will also receive free self-paced video courses, training materials, placement support, mock interviews and many more.

Program Key Features

- 100% Practical training
- Experienced Trainers
- 100% Placement assistance
- Small batch size
- Customized training content
- Real-time project training
- Fully equipped cloud lab
- 100% Customer support
- 100% Money back guarantee

About Course:

Spark Databox's **Deep Learning with TensorFlow training course** has been designed by industry experts and is supported by the most advanced best practices to mold you as an expert in deep learning. In this course, you will learn to comprehend deep learning concepts along with the TensorFlow framework. You will also learn to perform deep learning algorithms, develop artificial neural networks, and cover concepts of data abstraction to experience the potential of data and equip you for a bright career in deep learning.

Spark Databox Deep Learning with TensorFlow training will make you a Data Scientist by furnishing you with productive hands-on training on Deep Learning with TensorFlow. This course will act as the first step for your Data Science campaign, where you will receive the opportunity to work on many Deep Learning projects.

You will gain hands-on practical experience developing your own state-of-the-art model algorithm and other deep learning paradigms. You will also apply these TensorFlow models in real-life scenarios including, browsers, cloud, and even in mobile devices. Eventually, you will utilize superior techniques and algorithms to operate with massive datasets. Upon the completion of this course, you will be well versed with all the required skills to develop your own application.

Contents

Section 1: Introduction to Deep Learning

- Deep Learning: A revolution in Artificial Intelligence
- Limitations of Machine Learning
- What is Deep Learning?
- Advantage of Deep Learning over Machine learning
- 3 Reasons to go for Deep Learning
- Real-Life use cases of Deep Learning
- Review of Machine Learning: Regression, Classification, Clustering, Reinforcement Learning, Underfitting and Overfitting, Optimization

Section 2: Understanding Neural Networks with TensorFlow

- How Deep Learning Works?
- Activation Functions

- Illustrate Perceptron
- Training a Perceptron
- Important Parameters of Perceptron
- What is TensorFlow?
- TensorFlow code-basics
- Graph Visualization
- Constants, Placeholders, Variables
- Creating a Model
- Step by Step - Use-Case Implementation

Section 3: Deep dive into Neural Networks with TensorFlow

- Understand limitations of a Single Perceptron
- Understand Neural Networks in Detail
- Illustrate Multi-Layer Perceptron
- Backpropagation – Learning Algorithm
- Understand Backpropagation – Using Neural Network Example
- MLP Digit-Classifier using TensorFlow
- TensorBoard

Section 4: Master Deep Networks

- Why Deep Networks
- Why Deep Networks give better accuracy?
- Use-Case Implementation on SONAR dataset
- Understand How Deep Network Works?
- How Backpropagation Works?
- Illustrate Forward pass, Backward pass
- Different variants of Gradient Descent
- Types of Deep Networks

Section 5: Convolutional Neural Networks (CNN)

- Introduction to CNNs
- CNNs Application
- Architecture of a CNN
- Convolution and Pooling layers in a CNN
- Understanding and Visualizing a CNN

Section 6: Recurrent Neural Networks (RNN)

- Introduction to RNN Model

- Application use cases of RNN
- Modelling sequences
- Training RNNs with Backpropagation
- Long Short-Term Memory (LSTM)
- Recursive Neural Tensor Network Theory
- Recurrent Neural Network Model

Section 7: Restricted Boltzmann Machine (RBM) and Autoencoders

- Restricted Boltzmann Machine
- Applications of RBM
- Collaborative Filtering with RBM
- Introduction to Autoencoders
- Autoencoders applications
- Understanding Autoencoders

Section 8: Keras API

- Define Keras
- How to compose Models in Keras
- Sequential Composition
- Functional Composition
- Predefined Neural Network Layers
- What is Batch Normalization
- Saving and Loading a model with Keras
- Customizing the Training Process
- Using TensorBoard with Keras
- Use-Case Implementation with Keras

Section 9: TFLearn API

- Define TFLearn
- Composing Models in TFLearn
- Sequential Composition
- Functional Composition
- Predefined Neural Network Layers
- What is Batch Normalization
- Saving and Loading a model with TFLearn
- Customizing the Training Process
- Using TensorBoard with TFLearn
- Use-Case Implementation with TFLearn

Section 10: Real-time project

- Deep Learning with TensorFlow project environment setup in SparkDatabox Lab
- Real-time Deep Learning with TensorFlow project
- Project demonstration
- Expert evaluation and feedback

Section 11: You made it!!

- Spark Databox Deep Learning Tensor Flow certification
- Interview preparation
- Mock interviews
- Resume preparation
- Knowledge sharing with industry experts
- Counseling to guide you to a right path in Deep Learning with TensorFlow career

You made it!!

Post completion of Deep Learning Tensor Flow Online Course, a proper orientation for placements is done. With this training from experienced trainers, as professionals, you will be equipped with different proficiencies. This is a chance to open up and widen your prospects.

- Spark Databox Deep Learning Tensor Flow course certification
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- Mock interviews
- Resume preparation
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