Tel +44 20 4571 2395
info@siliconbeachtraining.co.uk

The course provides an overview of the essentials of the TensorFlow and deep neural networks. The course equips delegates with the comprehensive knowledge of various types of the Deep Architectures such as Recurrent Networks and Convolutional Networks. The course is specifically targeted at Business Analysts who want to gain an understanding of Deep Learning (ML) Techniques and Information Architects who want to master the concepts of Predictive Analytics. The course enables the delegates to solve real world problems by applying deep learning to different data types.

The course is mainly focused on TensorFlow as it is one of the best libraries to implement deep learning. It is widely used in the Speech Recognition System of Google. The course introduces delegates to the main functions, concepts and operations of TensorFlow. The course enables the delegates to apply mathematical analysis on the data, work with libraries like Keras and TFLearn and execute diverse Regression models. The training program will be conducted by industry leading experts who will help the delegates in mastering the concepts such as Autoencoder Neural Networks and Restricted Boltzmann Machine. The course provides rich, hands-on training on Deep Learning in TensorFlow and helps the delegates in becoming a successful Data Scientist.

During the Deep Learning course, the delegates will learn about Autoencoders, varitional Autoencoders, TFLearn implementation, Long short-term memory, Backpropagation, Keras, Restricted Boltzmann Machine and Unsupervised Learning. By the completion of the course, the delegates will be able to use TensorFlow in curve fitting, classification and apply TensorFlow for Backpropagation.

Prerequisites

The prerequisites of AI & Deep Learning with TensorFlow course includes:

- Basic knowledge of Machine Learning concepts
- Basic programming knowledge in Python

Course Objectives

- Thorough understanding of Deep Neural Networks
- Implementation of Collaborative Filtering with RBM
- Learn industry standards and best practices regarding AI & Deep Learning
- Explore various Neural Network architectures such as Autoencoders, Convolutional Neural Network and Recurrent Neural Network

- # Introduction to TensorFlow
  - Tensors

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- Two Computation Phrases
- A Computational Graph with TensorBoard
- Variables
- Linear Regression
- Operations

- **Installation of TensorFlow**
- **Artificial Neural Network**
- **Activate Functions**
- **Deep Learning Techniques**
  - Convolutional Neural Networks
  - Recurrent Neural Networks
- **Deep Learning Applications**
- **Computing Gradients**
- **Single-layer and Multi-Layer Perceptron**
- **Back Propagation with TensorFlow**

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