
Beginning Application Development with TensorFlow and Keras

Duration: 2 Days Course Code: LO035411

Overview:

This is a 2-day course packaged with the right balance of theory and hands-on activities that will help you easily learn TensorFlow and Keras from scratch. This course will provide you with a blueprint of how to build an application that generates predictions using a deep learning model. From there you can continue to improve the example model—either by adding more data, computing more features, or changing its architecture—continuously increasing its prediction accuracy, or create a completely new model, changing the core components of the application as you see fit.

Target Audience:

This course is designed for developers, analysts, and data scientists interested in developing applications using TensorFlow and Keras.

Objectives:

- A blueprint of the complete process for deploying a deep learning application: from environment setup to model deployment.
 - An example web-application that uses an HTTP API interface to retrieve model predictions.
 - A hands-on introduction to TensorFlow and Keras, popular technologies for building production-grade deep learning models.
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Prerequisites:

Hardware:

For successful completion of this course, students will require computer systems with the following:

- Processor: 2.6 GHz or higher, preferably multi-core
- Memory: 4 GB RAM
- Hard disk: 10 GB
- Projector
- Internet connection

Software:

- Operating System: Windows (8 or higher).
 - Visual Studio Code: <https://code.visualstudio.com/> .
 - Python 3: Follow instructions in website: <https://www.python.org/downloads/>
 - TensorFlow 1.4 or higher on Windows: Follow instructions in website: https://www.tensorflow.org/install/install_windows .
 - Keras 2: Follow instructions in website (Keras only): <https://keras.io/#installation> .
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Content:

Lesson 1: Introduction to Neural Networks and Deep Learning

- What are Neural Networks?
- Configuring a Deep Learning Environment

Lesson 2: Model Architecture

- Choosing the Right Model Architecture
- Using Keras as a TensorFlow Interface

Lesson 3: Model Evaluation and Evaluation

- Model Evaluation
- Hyperparameter Optimization

Lesson 4: Productization

- Handling New Data
- Deploying a Model as a Web Application

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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