London TDM

Artificial Intelligence and Data Science Training Courses

Course Venue: United Arab Emirates - Dubai

Course Date: From 29 March 2026 To 02 April 2026

Course Place: Downtown Dubai

Course Fees: 5,000 USD

Introduction

Explore the world of deep learning through this intensive 5-day course on TensorFlow and Keras. Participants will gain hands-on experience in building, deploying, and optimizing deep learning models. Ideal for both beginners and those with some machine learning background, this course covers the fundamentals and advanced concepts necessary to leverage the power of these popular frameworks.

- Understand the basics and advanced concepts of deep learning.
- Master TensorFlow's and Keras's programming structure and capabilities.
- Build and train deep neural networks for various applications.
- Optimize and fine-tune models for better performance.
- Deploy deep learning models in real-world scenarios.

Course Outlines

Day 1: Introduction to Deep Learning and TensorFlow

- Overview of Deep Learning Concepts
- Setting Up the TensorFlow Environment
- Understanding Tensors and Operations
- Building Your First Neural Network
- Introduction to Keras: A High-Level API

Day 2: Deep Neural Networks with TensorFlow and Keras

- Building Feedforward Neural Networks
- Exploring Activation Functions and Network Architecture
- Training Neural Networks: Optimization and Loss Functions
- Evaluating Model Performance
- Hands-On Lab: Building a Classifier with Keras

Day 3: Convolutional Neural Networks (CNNs)

- Introduction to CNNs: Theory and Applications
- Building CNNs with TensorFlow and Keras
- Data Augmentation Techniques
- Transfer Learning and Fine-Tuning CNNs
- Practical Lab: Image Classification with CNNs

Day 4: Advanced Deep Learning Techniques

- Understanding Recurrent Neural Networks (RNNs)
- Introduction to LSTM and GRU Networks
- Sequence Modeling with TensorFlow and Keras
- Exploring GANs: Generative Adversarial Networks
- Hands-On Lab: Time Series Prediction with RNNs

Day 5: Model Deployment and Real-World Applications

- Strategies for Model Deployment
- Introduction to TensorFlow Serving and TensorFlow Lite
- Integrating Models into Web and Mobile Applications
- Case Studies: Real-World Applications of Deep Learning
- Final Project: Building and Deploying a Complete Deep Learning Solution