London TDM

Artificial Intelligence and Data Science Training Courses

Course Venue: United Arab Emirates - Dubai

Course Date: From 08 February 2026 To 12 February 2026

Course Place: Downtown Dubai

Course Fees: 5,000 USD

Introduction

In today's dynamic technological landscape, the ability to deploy machine learning models efficiently is critical for deriving actionable insights from data. This 5-day professional course on "Machine Learning Model Deployment" is designed to equip participants with the necessary skills and knowledge to effectively deploy machine learning models in production environments, ensuring scalability, reliability, and maintainability.

Objectives

- Understand the importance and process of deploying machine learning models.
- Explore various deployment strategies and tools.
- Learn best practices for monitoring and scaling deployed models.
- Gain hands-on experience with real-world deployment scenarios.
- Understand the ethical and security considerations in model deployment.

Course Outlines

Day 1: Introduction to Model Deployment

- Overview of machine learning model lifecycle
- Importance of model deployment in production
- Introduction to deployment environments and platforms
- Common challenges in model deployment
- Tools and frameworks for deployment

Day 2: Deployment Techniques and Strategies

- Batch vs. real-time deployment
- Using APIs for model deployment
- Containerization with Docker and Kubernetes
- Introduction to cloud-based deployment
- Case studies on deployment strategies

Day 3: Hands-On Deployment

- Setting up a deployment environment
- Deploying a model using Flask and Docker
- Integrating models with web applications
- Testing and validating deployed models
- Troubleshooting deployment issues

Day 4: Monitoring and Scaling Models

- Importance of monitoring in production
- Tools for monitoring deployed models
- Scaling models to handle increased load
- Automating deployment and scaling processes
- Advanced techniques in scaling with Kubernetes

Day 5: Ethics, Security, and Future Trends

- Introduction to ethical considerations in AI deployment
- Ensuring data privacy and security
- Managing model updates and versioning
- Emerging trends and future of model deployment
- Group discussion and course wrap-up