



London TDM

Artificial Intelligence and Data Science Training Courses

Course Venue: United Arab Emirates - Dubai

Course Date: From 19 October 2025 To 23 October 2025

Course Place: Downtown Dubai

Course Fees: 5,000 USD

Introduction

This 5-day professional course, "Capstone Project in AI and Data Science," is designed to guide participants through the process of conceptualizing, designing, and executing a comprehensive capstone project. Participants will synthesize their knowledge in AI and data science, working collaboratively to solve real-world problems by leveraging advanced analytical techniques and tools. This course will transform theoretical insights into actionable outcomes, equipping students with the skills to lead innovative projects in their respective fields.

Objectives

- To understand the integration of AI and data science concepts in project development.
- To develop skills for data collection, processing, and analysis using modern tools.
- To enhance problem-solving capabilities through the application of machine learning algorithms.
- To cultivate teamwork and project management skills in a collaborative setting.
- To present solutions and interpretations to both technical and non-technical audiences.

Course Outlines

Day 1: Introduction to Capstone Projects

- Overview of a capstone project's role in AI and data science.
- Discussion on recent advancements and trends in AI applications.
- Choosing a relevant project topic and defining objectives.
- Forming teams and identifying roles and responsibilities.
- Setting project timelines and deliverables.

Day 2: Data Gathering and Preparation

- Introduction to data sources and collection techniques.
- Data cleaning and preprocessing strategies.
- Tools and technologies for handling large datasets.
- Exploratory data analysis and its importance.
- Identifying and addressing data quality issues.

Day 3: Model Development and Evaluation

- Introduction to machine learning models suitable for capstone projects.
- Implementing model-building techniques in Python.
- Techniques for training and validating machine learning models.
- Understanding and applying various evaluation metrics.
- Iterative improvement of models based on evaluation results.

Day 4: Implementation and Deployment

- Strategies for integrating AI solutions into existing systems.
- Introduction to cloud platforms and deployment frameworks.
- Ensuring model scalability and reliability in deployment.
- Developing dashboards and visualization tools for insights.

- Establishing monitoring and maintenance protocols post-deployment.

Day 5: Project Presentation and Feedback

- Guidelines for preparing and delivering effective presentations.
- Presenting project outcomes to a panel of experts.
- Receiving constructive feedback and identifying areas of improvement.
- Documenting the project process and outcomes comprehensively.
- Course reflection and future directions in AI and data science.