London TDM

Artificial Intelligence and Data Science Training Courses

Course Venue: United Kingdom - London

Course Date: From 09 November 2025 To 13 November 2025

Course Place: London Paddington

Course Fees: 7,500 USD

Introduction

Welcome to the "Computer Vision and Image Recognition" professional course. This intensive 5-day program is designed to equip you with the foundational and advanced concepts of computer vision, diving into the intricacies of image recognition techniques and practical implementations. Through interactive lectures, hands-on exercises, and collaborative projects, you will gain the necessary skills to excel in the field of computer vision.

Objectives

- Understand the fundamental concepts of computer vision and image processing.
- Explore various image recognition techniques and algorithms.
- Implement computer vision applications using popular tools and libraries.
- Analyze real-world case studies and projects to understand practical challenges and solutions.
- Develop skills to create and deploy models for diverse computer vision tasks.

Course Outlines

Day 1: Introduction to Computer Vision

- Overview of Computer Vision: Definition and Applications
- History and Evolution of Image Recognition
- Basic Image Processing Techniques
- Understanding Pixels, Colors, and Image Representation
- Introduction to OpenCV: Setup and Basic Functions

Day 2: Image Recognition Techniques

- Feature Detection: Edges, Corners, and Keypoints
- Descriptors and Matching Algorithms
- Deep Learning for Image Recognition: Introduction
- Convolutional Neural Networks: Architecture and Layers
- Transfer Learning and Pre-trained Models

Day 3: Image Classification and Object Detection

- Image Classification: Techniques and Tools
- Object Detection: Overview of Algorithms
- YOLO and SSD: Real-time Object Detection Methods
- Introduction to Region-based CNN (R-CNN)
- Building Custom Classifiers and Detectors

Day 4: Advanced Topics in Computer Vision

- Semantic Segmentation and Instance Segmentation
- Generative Adversarial Networks (GANs) for Image Synthesis
- 3D Vision: Depth Maps and 3D Reconstruction
- Facial Recognition and Analysis Techniques
- Challenges and Future Trends in Computer Vision

Day 5: Practical Implementations and Project

- Hands-on Project: Building a Complete Image Recognition System
- Evaluation and Optimization of Vision Models
- Deployment Strategies: From Development to Production
- Exploring Industry Case Studies
- Final Project Presentations and Feedback