

## Machine Learning

*Sharm El-Sheikh (Egypt)*

*14 - 18 June 2026*

UK Training

# PARTNER



## Machine Learning

Code: IT28 From: 14 - 18 June 2026 City: Sharm El-Sheikh (Egypt) Fees: 4400 Pound

### Introduction

Machine Learning ML is a powerful subset of artificial intelligence AI that focuses on developing algorithms and statistical models which allow computers to learn from data, adapt to new input, and make predictions or decisions without being explicitly programmed. The core idea is to enable computers to improve performance on specific tasks by learning from their experiences. This Machine Learning certification course offers an intro to machine learning along with practical applications of various machine learning methods and techniques in real-world scenarios. Whether you are new to the field or seeking to master machine learning, this course will empower you with essential skills, from machine learning basics to advanced machine learning techniques.

### Course Objectives

Upon completing this course, participants will:

- Understand the basic concepts of machine learning and its different paradigms, including supervised learning, unsupervised learning, and reinforcement learning.
- Learn how to preprocess data and explore it to make it suitable for building accurate machine learning models.
- Gain familiarity with popular machine learning algorithms and their applications in diverse real-world scenarios.
- Develop the skills needed to evaluate, optimize, and fine-tune machine learning models to achieve optimal performance.
- Apply the principles and techniques of machine learning to solve complex problems and work on real-world projects.
- Learn the importance of machine learning monitoring and how to ensure your models stay effective in the long term.

### Course Outlines

#### Day 1: Introduction to Machine Learning

- What is Machine Learning? Understanding the significance of ML in different industries.
- Overview of the types of machine learning: Supervised, Unsupervised, and Reinforcement learning.
- Data preparation: The importance of data collection, cleaning, and feature engineering for effective machine learning.
- Python Libraries for Machine Learning: Introduction to NumPy, Pandas, and Scikit-learn.
- Hands-on: Setting up the development environment and exploring datasets.

#### Day 2: Supervised Learning Algorithms



- Linear Regression: How to model relationships between variables for predictions.
- Logistic Regression: Understanding binary classification and probability estimation.
- Decision Trees and Random Forests: Building decision-making models and ensembling methods.
- Evaluation Metrics: How to evaluate model accuracy using metrics such as precision, recall, F1-score, and ROC curves.
- Hands-on: Implementing supervised learning algorithms on sample datasets.

### Day 3: Unsupervised Learning Algorithms

- K-Means Clustering: Grouping similar data points together for better insights.
- Hierarchical Clustering: Creating cluster hierarchies in data.
- Dimensionality Reduction: Using Principal Component Analysis PCA for feature reduction.
- Anomaly Detection: Identifying rare instances within data.
- Hands-on: Applying unsupervised learning techniques to real-world datasets.

### Day 4: Advanced Machine Learning Techniques

- Support Vector Machines SVM: Maximizing decision boundaries for classification.
- Neural Networks and Deep Learning: Introduction to building artificial neural networks.
- Model Selection and Hyperparameter Tuning: Using cross-validation and grid search for optimization.
- Handling Imbalanced Data: Techniques to address class imbalance in datasets.
- Hands-on: Building neural networks and fine-tuning models for improved performance.

### Day 5: Special Topics in Machine Learning

- Natural Language Processing NLP: Techniques for text analysis and sentiment classification.
- Recommender Systems: Building personalized recommendation engines for diverse applications.
- Time Series Analysis: Predicting future trends from time-ordered data.
- Deploying Machine Learning Models: Best practices for integrating models into production applications.
- Hands-on: Completing a Machine Learning project from start to finish, applying all learned techniques.

### Why Attend This Course: Wins & Losses!

- Comprehensive understanding of Machine Learning techniques, including supervised, unsupervised, and reinforcement learning, crucial for tackling real-world problems.
- Gain hands-on experience with popular machine learning algorithms, Python libraries like NumPy and Pandas, and learn how to effectively work with data.
- Master the skills required for model evaluation, optimization, and fine-tuning to ensure high-performance machine learning models.
- Get insights into advanced machine learning topics, including neural networks, SVM, NLP, and time series analysis, allowing you to apply ML in diverse industries.
- Gain a certification in machine learning, a valuable asset for advancing your career in the rapidly growing AI and tech fields.

### Conclusion

This Machine Learning certification course provides an essential foundation for mastering machine learning techniques and applying them effectively across different industries. From machine learning basics to advanced machine learning techniques, this course will help you develop the skills necessary to work on complex data-driven

**PARTNER**



problems. By the end of this course, you will be well-equipped with the knowledge to optimize models, utilize Python libraries, and deploy machine learning applications that can transform your organization or career.

Master machine learning and open new opportunities in the ever-evolving world of AI.



# Blackbird Training Cities

## Europe



Malaga (Spain)



Sarajevo (Bosnia and Herzegovina)



Oporto (Portugal)



Glasgow (Scotland)



Edinburgh (UK)



Oslo (Norway)



Annecy (France)



Bordeaux (France)



Copenhagen (Denmark)



Birmingham (UK)



Lyon (France)



Moscow (Russia)



Stockholm (Sweden)



Podgorica (Montenegro)



Batumi (Georgia)



Salzburg (Austria)



London (UK)



Istanbul (Turkey)



Amsterdam



Düsseldorf (Germany)



Paris (France)



Athens (Greece)



Barcelona (Spain)



Munich (Germany)



Geneva (Switzerland)



Prague (Czech)



Vienna (Austria)



Rome (Italy)



Brussels (Belgium)



Madrid (Spain)



Berlin (Germany)



Lisbon (Portugal)



Zurich (Switzerland)



Manchester (UK)



Milan (Italy)



# Blackbird Training Cities

## USA & Canada



Los Angeles (USA)



Orlando, Florida (USA)



Online



Phoenix, Arizona (USA)



Houston, Texas (USA)



Boston, MA (USA)



Washington (USA)



Miami, Florida (USA)



New York City (USA)



Seattle, Washington (USA)



Washington DC (USA)



In House



Jersey, New Jersey (USA)



Toronto (Canada)

## ASIA



Baku (Azerbaijan)  
(Thailand)



Maldives (Maldives)



Doha (Qatar)



Manila (Philippines)



Bali (Indonesia)



Bangkok



Beijing (China)



Singapore (Singapore)



Sydney



Tokyo (Japan)



Jeddah (KSA)



Riyadh (KSA)



Melbourne (Australia)  
(Kuwait)



Phuket (Thailand)



Shanghai (China)



Dubai (UAE)



Kuala Lumpur (Malaysia)



Kuwait City



Seoul (South Korea)



Pulau Ujong (Singapore)



Irbid (Jordan)



Jakarta (Indonesia)



Amman (Jordan)



Beirut





## Blackbird Training Cities

### AFRICA



Kigali (Rwanda)



Cape Town ( South Africa)



Accra (Ghana)



Lagos (Nigeria)



Marrakesh (Morocco)



Nairobi (Kenya)



Zanzibar (Tanzania)



Tangier (Morocco)



Cairo (Egypt)



Sharm El-Sheikh (Egypt)



Casablanca (Morocco)



Tunis (Tunisia)



## Blackbird Training Clients



MANNAI Trading  
Company WLL,  
Qatar



Alumina Corporation  
Guinea



Booking.com  
Netherlands



Oxfam GB International  
Organization,  
Yemen



Capital Markets  
Authority,  
Kuwait



Waltersmith Petroman Oil Limited  
Nigeria



Qatar National Bank  
(QNB),  
Qatar



Qatar Foundation,  
Qatar



AFRICAN UNION ADVISORY  
BOARD ON CORRUPTION,  
Tanzania



KFAS  
Kuwait



Reserve Bank of  
Malawi,  
Malawi



Central Bank of Nigeria  
Nigeria



Ministry of Interior  
Kingdom of Saudi Arabia  
KSA



Mabruk Oil Company  
Libya



Saudi Electricity  
Company,  
KSA



BADAN PENGELOLA  
KEUANGAN Haji,  
Indonesia



NATO  
Italy



ENI CORPORATE  
UNIVERSITY,  
Italy



Gulf Bank  
Kuwait



المؤسسة العامة للتأمينات الاجتماعية  
General Organization for  
Social Insurance  
KSA



Defence Space Administration  
Nigeria



National Industries  
Group (Holding),  
Kuwait



Hamad Medical  
Corporation,  
Qatar



USAID  
Pakistan



STC Solutions,  
KSA



North Oil company,



EKO Electricity



Oman Broadband



UNITED NATIONS  
UN.



هيئة تنظيم الكهرباء - عمان  
Authority for

UK Training  
**PARTNER**





## Blackbird Training Categories

### Management & Admin

Entertainment & Leisure  
Professional Skills  
Finance, Accounting, Budgeting  
Media & Public Relations  
Project Management  
Human Resources  
Audit & Quality Assurance  
Marketing, Sales, Customer Service  
Secretary & Admin  
Supply Chain & Logistics  
Management & Leadership  
Agile and Elevation

### Technical Courses

Artificial Intelligence (AI)  
Hospital Management  
Public Sector  
Special Workshops  
Oil & Gas Engineering  
Telecom Engineering  
IT & IT Engineering  
Health & Safety  
Law and Contract Management  
Customs & Safety  
Aviation  
C-Suite Training



 International House 185 Tower Bridge  
Road London SE1 2UF United Kingdom

 +44 7401 1773 35  
+44 7480 775526

 [Sales@blackbird-training.com](mailto:Sales@blackbird-training.com)

 [www.blackbird-training.com](http://www.blackbird-training.com)

