Machine Learning

London (UK)

10 - 14 August 2026

UK Traininig

PARTNER

Machine Learning

Code: IT28   From: 10 - 14 August 2026   City: London (UK)   Fees: 5100   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

Head Office: +44 7480 775 526
Email: Sales@blackbird-training.com
Website: www.blackbird-training.com

- 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

Head Office: +44 7480 775 526
Email: Sales@blackbird-training.com
Website: www.blackbird-training.com

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.

Head Office: +44 7480 775 526
Email: Sales@blackbird-training.com
Website: www.blackbird-training.com

Blackbird Training Cities

Europe

Malaga (Spain)	Sarajevo (Bosnia and Herzegovina)	Cascais (Portugal)	Glasgow (Scotland)	Edinburgh (UK)	Oslo (Norway)
Annecy (France)	Bordeax (France)	Copenhagen (Denmark)	Birmingham (UK)	Lyon (France)	Moscow (Russia)
Stockholm (Sweden)	Podgorica (Montenegro)	Batumi (Georgia)	Salzburg (Austria)	Florence (Italy)	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)

UK Traininig
PARTNER

Head Office: +44 7480 775 526
Email: Sales@blackbird-training.com
Website: www.blackbird-training.com

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

Head Office: +44 7480 775 526
Email: Sales@blackbird-training.com
Website: www.blackbird-training.com

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)

Head Office: +44 7480 775 526
Email: Sales@blackbird-training.com
Website: www.blackbird-training.com

UK Traininig
PARTNER

Blackbird Training Clients

MANNAI CORPORATION
MANNAI Trading Company WLL, **Qatar**

GAC UNE FILIALE D' EGA
Alumina Corporation **Guinea**

Booking.com
Booking.com **Netherlands**

OXFAM
Oxfam GB International Organization, **Yemen**

Capital Markets Authority
Capital Markets Authority, **Kuwait**

WS
Waltersmith Petroman Oil Limited **Nigeria**

QNB
Qatar National Bank (QNB), **Qatar**

مؤسسة قطر Qatar Foundation
Qatar Foundation, **Qatar**

AFRICAN UNION ADVISORY BOARD ON CORRUPTION, **Tanzania**

KFAS
Kuwait Foundation for the Advancement of Sciences
KFAS **Kuwait**

Reserve Bank of Malawi, **Malawi**

Central Bank of Nigeria **Nigeria**

Ministry of Interior Kingdom of Saudi Arabia
Ministry of Interior, **KSA**

Mabruk Oil Operations
Mabruk Oil Company **Libya**

Saudi Electricity Company
Saudi Electricity Company, **KSA**

BPKH Badan Pengelola Keuangan Haji
BADAN PENGELOLA KEUANGAN Haji, **Indonesia**

NATO **Italy**

eni
ENI CORPORATE UNIVERSITY, **Italy**

GULF BANK
Gulf Bank **Kuwait**

General Organization for Social Insurance
General Organization for Social Insurance **KSA**

Defence Space Administraion **Nigeria**

National Industries Group (Holding), **Kuwait**

Hamad Medical Corporation
Hamad Medical Corporation, **Qatar**

USAID
USAID **Pakistan**

STC Solutions, **KSA**

North Oil Company
North Oil company,

EKEDC EKO ELECTRICITY DISTRIBUTION COMPANY
EKO Electricity

oman BROADBAND
Oman Broadband

UNITED NATIONS
UN.

AUTHORITY FOR ELECTRICITY REGULATOR, OMAN
Authority for

UK Trainig **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

www.blackbird-training.com

UK Trainig
PARTNER

Head Office: +44 7480 775 526
Email: Sales@blackbird-training.com
Website: www.blackbird-training.com