MERCURY

Mastering AI-Driven Data Analytics

21 – 25 December 2026
Madrid (Spain)



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Ref: 15965_1000297 **Date:** 21 – 25 December 2026 **Location:** Madrid (Spain) **Fees:** 6200 Euro

Introduction to AI-Driven Data Analytics:

This AI-Driven Data Analysis course offers participants comprehensive knowledge and practical skills in AI-driven data analytics. Participants will explore how AI seamlessly integrates with data analytics to derive actionable insights and enhance the decision-making process. It blends theoretical foundations with hands-on applications to ensure a robust understanding of AI in data analytics.

AI-driven data analytics is transforming how businesses process and interpret vast amounts of data. But what is AI-driven analytics? It is the use of artificial intelligence to automate, enhance, and optimize data analysis, leading to more accurate insights. Participants in this AI-Driven Data Analysis program will explore AI-driven data, AI-driven decision-making, and AI-driven analytics.

This AI-Driven Data Analysis training course helps professionals leverage machine learning and automation for better business strategies. Participants will understand the definition of data-driven AI and how AI-driven analytics can enhance decision-making processes. By mastering AI-driven data analysis, attendees will gain the skills to apply AI-driven techniques for actionable insights.

Targeted Groups:

The AI-Driven Data Analysis course targets data scientists, business analysts, IT professionals, and decision-makers with a foundational understanding of data analytics. It is also perfect for industry professionals seeking to leverage AI for strategic business growth.

Training Objectives:

By the end of this AI-Driven Data Analysis course, participants will be able to:

- Understand the significant role and impact of AI in data analytics.
- Implement AI models effectively for predictive and prescriptive analytics.
- Apply advanced machine learning techniques to improve data analysis.
- Develop innovative AI-driven solutions for real-world business challenges.
- Seamlessly integrate AI with existing data analytics tools and frameworks.

Targeted Competencies:

Participants in this AI-Driven Data Analysis training will acquire competencies in:

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- Advanced AI techniques applied to analytics.
- Enhanced skills in machine learning and deep learning applications.
- Proficiency in predictive and prescriptive analytics.
- Improved abilities in data visualization and interpretation.
- Enhanced AI-driven decision-making processes.

AI Data-Driven Decision-Making:

AI-driven data analytics empowers professionals to make informed decisions by sophisticatedly leveraging data. Understanding the definition of data-driven AI and its practical implications can significantly transform business strategies and outcomes.

Course Content:

Unit 1: Foundations of AI in Data Analytics:

- Overview of AI and its integration with data analytics.
- Examination of the evolution of AI and its significance.
- Understanding essential AI and data analytics terminology.
- Exploring the AI lifecycle.
- Distinguishing between traditional and AI-based analytics.

Unit 2: Machine Learning Techniques for Data Analytics:

- Exploration of supervised learning techniques such as regression and classification.
- Investigation of their applications in data analytics.
- Delving into unsupervised learning methods, including clustering and dimensionality reduction.
- Learning about anomaly detection.
- Introduction to reinforcement learning and its applications.
- Relevant case studies in analytics.

Unit 3: Advanced Data Processing with AI:

- Techniques for data preprocessing.
- Handling missing data using AI tools.
- Feature selection and transformation.
- Applications of Natural Language Processing NLP in sentiment analysis, text mining, and language modeling.
- Implementation of computer vision for image recognition and object detection.
- Understanding the use of AI in data-driven decision-making.

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Unit 4: AI-Driven Predictive and Prescriptive Analytics:

- Building predictive models.
- Forecasting and risk assessment using AI.
- Utilizing optimization techniques for prescriptive analytics.
- Performing scenario analysis and supporting decision-making processes.
- Reviewing case studies demonstrating real-world applications of predictive and prescriptive analytics across industries.

Unit 5: Integration and Deployment of AI Solutions:

- Leveraging AI for enhanced business intelligence BI.
- Exploring real-time analytics and dynamic dashboard creation.
- Best practices for deploying AI solutions.
- Strategies for cloud-based AI analytics and system maintenance.
- Addressing ethical challenges in AI analytics.
- Ensuring data privacy and complying with regulatory standards.