Training Course on Machine Learning for Non-Technical Leaders

Professional Development Training Course Outline

Category	CEOs and Directors	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In today's rapidly evolving digital landscape, **Machine Learning (ML)** is no longer a niche technical domain but a core driver of **business innovation** and **strategic advantage**. Non-technical leaders who grasp the fundamental concepts and practical applications of ML are uniquely positioned to **transform their organizations**, identify **new opportunities**, and navigate the complexities of data-driven decision-making. This course demystifies ML, equipping executives, managers, and strategists with the **literacy and foresight** needed to effectively lead ML initiatives without requiring deep coding knowledge.

Training Course on Machine Learning for Non-Technical Leaders focuses on bridging the gap between cutting-edge ML technology and its **real-world business impact**. Participants will gain a clear understanding of what ML can (and cannot) do, learn to articulate **data-driven strategies**, and effectively communicate with **technical teams**. By developing a strategic perspective on **AI adoption** and **digital transformation**, non-technical leaders will unlock their organization's full potential, fostering a culture of innovation and informed decision-making in the age of intelligent automation.

Programme Curriculum

Training Course on Machine Learning for Non-Technical Leaders

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10 days

Course Objectives

1. Gain a clear, jargon-free understanding of fundamental **Artificial Intelligence (AI)** and **Machine Learning (ML)** principles.
2. Learn to identify and articulate **strategic opportunities** for **ML adoption** across various business functions.
3. Enhance capabilities in leveraging **data insights** and **predictive analytics** for informed business decisions.
4. Explore the power of **accessible ML tools** and **automation workflows** for rapid prototyping and deployment.
5. Understand the critical importance of **AI ethics**, **bias mitigation**, and responsible **data governance** in ML projects.
6. Bridge the gap between **business objectives** and **technical execution** by effectively collaborating with data science teams.
7. Develop frameworks to assess and demonstrate the **Return on Investment (ROI)** of **Machine Learning initiatives**.
8. Grasp the core concepts of **predictive modeling**, **classification**, and **regression** without technical depth.
9. Learn to develop a practical **AI transformation strategy** for organizational growth and efficiency.
10. Identify common **AI pitfalls** and develop strategies for **risk management** in ML deployments.
11. Explore the emerging landscape of **Generative AI** and its potential for content creation and business innovation.
12. Equip yourself with the mindset and knowledge to lead effectively in an increasingly **AI-driven future**.
13. Foster an organizational culture that embraces **continuous learning** and **AI literacy**.

Organizational Benefits

- Organizations can swiftly adapt to market changes by leveraging ML-driven insights.
- Automation of routine tasks and optimized processes lead to significant cost savings.
- Personalized services and targeted offerings driven by ML lead to increased customer satisfaction and loyalty.
- Early and effective adoption of ML differentiates businesses in the marketplace.
- Fosters a culture where data fuels new product development and service enhancements.
- Better forecasting and predictive analytics enable more efficient use of resources.

- ML models can identify anomalies and potential fraud more effectively than traditional methods.
- Data-backed insights support smarter capital allocation and strategic investments.

Target Audience

1. Senior Executives and C-Suite Leaders.
2. Department Heads and Managers
3. Business Analysts & Consultants.
4. Project Managers.
5. Entrepreneurs & Startup Founders
6. Decision-Makers in Any Industry.
7. Non-Technical Innovators.
8. Team Leaders & Supervisors.

Course Outline

Module 1: Introduction to Machine Learning for Business Leaders

- What is Machine Learning (ML) and why is it crucial for business?
- Demystifying AI vs. ML vs. Deep Learning: Core concepts explained simply.
- The business value proposition of ML: Beyond the hype.
- Understanding common ML applications in various industries.
- **Case Study:** How Netflix uses ML for personalized recommendations, driving customer engagement and retention.

Module 2: The ML Project Lifecycle from a Non-Technical Perspective

- Key stages: Problem definition, data acquisition, model development, deployment, monitoring.
- Understanding the roles of data scientists, engineers, and business stakeholders.
- Framing business problems as ML opportunities.
- Agile methodologies in ML project management.
- **Case Study:** A retail company optimizing inventory management using ML forecasting, reducing waste and improving stock availability.

Module 3: Data Fundamentals for Leaders

- The importance of data quality, quantity, and ethical sourcing.
- Understanding different types of data: Structured, unstructured, big data.
- Data literacy: Asking the right questions about data.
- Data governance and privacy considerations (e.g., GDPR, CCPA).
- **Case Study:** A healthcare provider leveraging anonymized patient data for predictive disease diagnosis, enhancing early intervention.

Module 4: Supervised Learning: Predicting the Future

- Introduction to supervised learning: Learning from labeled data.
- Common algorithms: Regression (predicting continuous values) and Classification (predicting categories).
- Key metrics for evaluating supervised models (e.g., accuracy, precision, recall).
- Understanding overfitting and underfitting without the math.

- **Case Study:** A financial institution using ML for fraud detection, minimizing financial losses and enhancing security.

Module 5: Unsupervised Learning: Discovering Hidden Patterns

- Introduction to unsupervised learning: Finding patterns in unlabeled data.
- Clustering: Grouping similar data points for segmentation.
- Dimensionality Reduction: Simplifying complex datasets for better insights.
- Applications in customer segmentation and anomaly detection.
- **Case Study:** An e-commerce platform segmenting its customer base for targeted marketing campaigns, increasing conversion rates.

Module 6: Ethical AI & Responsible Innovation

- Addressing bias in ML models and data.
- Fairness, accountability, and transparency (FAT) in AI.
- The societal impact of AI: Job displacement, privacy concerns.
- Developing an ethical AI framework for your organization.
- **Case Study:** Analyzing a real-world example of algorithmic bias in a hiring tool and discussing strategies for mitigation.

Module 7: Introduction to No-Code/Low-Code ML Platforms

- Empowering non-technical users with accessible ML tools.
- Drag-and-drop interfaces for model building and deployment.
- Rapid prototyping and iterative development.
- Evaluating and selecting appropriate no-code/low-code solutions.
- **Case Study:** A small business using Google AutoML to build a custom image recognition model for product categorization.

Module 8: Machine Learning in Practice: Business Use Cases

- Marketing & Sales: Customer churn prediction, lead scoring, personalization.
- Operations: Supply chain optimization, predictive maintenance.
- Finance: Credit risk assessment, algorithmic trading.
- HR: Talent acquisition, employee retention analysis.
- **Case Study:** An automotive manufacturer using ML for predictive maintenance of machinery, reducing downtime and costs.

Module 9: AI Strategy & Roadmapping for Leaders

- Developing an organizational AI vision and strategy.
- Identifying high-impact ML initiatives aligned with business goals.
- Building an AI-ready organizational structure.
- Measuring the ROI of ML projects: Key performance indicators.
- **Case Study:** A large enterprise developing a multi-year AI roadmap, outlining key investments and expected business outcomes.

Module 10: Communicating with Data Scientists and AI Teams

- Translating business problems into technical requirements.
- Effective communication strategies for cross-functional teams.
- Understanding the limitations and capabilities of ML models.
- Setting realistic expectations for AI project outcomes.

- **Case Study:** A business leader effectively collaborating with a data science team to refine a customer sentiment analysis model.

Module 11: The Future of AI: Emerging Trends & Technologies

- Generative AI: Revolutionizing content creation and design.
- Reinforcement Learning: Learning through trial and error.
- Edge AI: Processing data closer to the source.
- Quantum Machine Learning: The distant horizon.
- **Case Study:** Exploring how a media company is experimenting with Generative AI for automating content summaries and drafting marketing copy.

Module 12: Building an AI-Driven Culture

- Fostering AI literacy across the organization.
- Encouraging experimentation and learning from failures.
- Upskilling and reskilling the workforce for an AI-powered future.
- Promoting a data-first mindset.
- **Case Study:** A professional services firm implementing internal training programs and hackathons to promote AI awareness and innovation.

Module 13: Risk Management & AI Governance

- Identifying and mitigating risks associated with AI deployment (e.g., security, reliability).
- Establishing clear governance frameworks for AI initiatives.
- Compliance with industry regulations and standards.
- Developing incident response plans for AI system failures.
- **Case Study:** A financial services company implementing an AI governance committee to oversee ethical and compliant ML model deployment.

Module 14: AI in Your Industry: Tailored Applications

- Deep dive into industry-specific ML use cases (e.g., finance, healthcare, retail, manufacturing, logistics).
- Identifying direct competitors and industry leaders leveraging AI.
- Brainstorming immediate AI opportunities within participants' organizations.
- Group exercises on developing tailored AI solutions.
- **Case Study:** Participants work in groups to identify and outline a potential ML project relevant to their specific industry, including estimated ROI.

Module 15: Action Planning & Next Steps

- Developing a personal AI action plan.
- Resources for continuous learning and development.
- Networking with peers and AI experts.
- Q&A and open discussion on challenges and opportunities.
- **Case Study:** Individual participants present their initial AI action plans, receiving feedback and insights from instructors and peers.

Training Methodology

This course employs a **blended learning approach** designed specifically for non-technical leaders, emphasizing practical understanding and strategic application over technical details.

- **Interactive Lectures:** Engaging presentations that demystify complex ML concepts through analogies and real-world examples, avoiding technical jargon.
- **Case Study Analysis:** In-depth examination of successful and challenging ML implementations across diverse industries to illustrate concepts and best practices.
- **Group Discussions & Brainstorming:** Facilitated sessions encouraging peer learning, knowledge sharing, and collaborative problem-solving for business challenges.
- **Hands-on Demonstrations (No-Code/Low-Code Tools):** Visual walkthroughs and guided exercises using user-friendly ML platforms to provide practical exposure without coding.
- **Strategic Frameworks & Templates:** Provision of actionable tools and templates for developing AI strategies, evaluating projects, and managing risks.
- **Q&A and Expert Panel Sessions:** Opportunities to interact directly with experienced AI practitioners and industry leaders.
- **Action Planning Workshops:** Structured sessions to help participants translate learning into personalized strategic initiatives for their organizations.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to DAT

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

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