AI Model Risk Management for Practitioners Training Course

Professional Development Training Course Outline

Category	Risk Management	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The proliferation of Artificial Intelligence (AI) and Machine Learning (ML) models across critical business functions, particularly in finance, healthcare, and technology, has created unprecedented efficiencies but also introduced complex, novel risks. Traditional Model Risk Management (MRM) frameworks are often insufficient to govern the opacity, dynamic nature, and reliance on high-dimensional data inherent in modern AI systems. This has escalated the urgency for Responsible AI practices, requiring practitioners to master a specialized skillset covering the entire AI Model Lifecycle. The convergence of rapid AI adoption and increasing regulatory scrutiny driven by frameworks like the NIST AI RMF and the proposed EU AI Act makes robust, proactive AI MRM no longer optional, but a strategic imperative for maintaining stakeholder trust, ensuring ethical compliance, and safeguarding financial and reputational stability.

AI Model Risk Management for Practitioners Training Course is designed to equip risk and technical professionals with the practical, hands-on expertise to design, implement, and govern a resilient AI Risk Management Framework. Participants will move beyond theoretical concepts to master critical skills such as bias detection and mitigation, enhancing model explainability, performing rigorous model validation, and establishing continuous model performance monitoring in production environments. By focusing on real-world case studies from preventing algorithmic bias in credit scoring to mitigating 'hallucinations' in Generative AI the course ensures immediate applicability, transforming attendees into AI governance leaders capable of navigating the complex intersection of innovation, ethics, and compliance in the AI-powered enterprise.

Programme Curriculum

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Course Duration

5 days

Course Objectives

1. Master the AI Model Lifecycle and its distinct risks, from data ingestion to model deprecation.
2. Implement a foundational AI Risk Management Framework aligned with the NIST AI RMF and global regulations.
3. Design and execute strategies for Algorithmic Bias detection and Fairness mitigation, including differential testing techniques.
4. Apply Explainable AI (XAI) techniques like SHAP and LIME to interpret 'black-box' models for compliance and transparency.
5. Conduct thorough, independent AI Model Validation covering conceptual soundness, data quality, and performance robustness.
6. Establish effective Data Governance protocols for AI, focusing on data lineage, privacy, and synthetic data generation.
7. Develop and implement Continuous Model Monitoring to detect Model Drift and performance decay in real-time production.
8. Identify and mitigate risks specific to Generative AI, such as hallucinations, data leakage, and content toxicity.
9. Integrate Ethical AI principles and frameworks into model design and deployment processes.
10. Navigate the landscape of AI Regulation and ensure proactive compliance.
11. Perform Adversarial Robustness Testing to safeguard models against intentional security attacks.
12. Structure a robust Model Inventory system for enterprise-wide visibility and risk aggregation.
13. Formulate a pragmatic AI Governance structure with clear roles, accountability, and reporting lines.

Target Audience

1. Model Risk Management (MRM) Specialists and Analysts
2. Risk & Compliance Officers/Managers (CROs, CCOs)

3. Data Scientists and Machine Learning (ML) Engineers
4. Internal Audit Professionals focused on Technology and Quantitative Models
5. AI Governance and Responsible AI Leads
6. Technology/Operational Risk Managers
7. Quants and Quantitative Developers in Financial Services
8. Project/Program Managers overseeing AI/ML initiatives

Course Modules

1. Foundational AI Risk and Governance

- Defining the AI Model Lifecycle and risk taxonomy.
- Mapping traditional MRM to the new AI Risk landscape.
- Case Study: A major retail bank faces regulatory fines due to insufficient Model Inventory and tracking of shadow AI systems.
- NIST AI RMF, ISO/IEC 42001.
- Establishing Model Ownership and accountability structure.

2. Data and Development Risk

- Assessing Data Quality for AI.
- Identifying and mitigating risks in Feature Engineering and training data.
- Case Study: A healthcare provider's diagnostic model fails due to a shift in input data distribution post-deployment.
- Techniques for Data Minimization and synthetic data generation.
- Risk from model complexity and selection bias.

3. Algorithmic Bias, Fairness, and Ethics

- Measuring and quantifying different types of Algorithmic Bias
- Implementing Fairness metrics
- Case Study: A loan approval model systematically rejects applications from a specific demographic due to historical bias in the training data.
- Practical mitigation techniques
- Operationalizing Ethical AI guidelines.

4. Explainability and Transparency (XAI)

- The business and regulatory imperative for Explainable AI
- Hands-on application of local explainability methods.
- Case Study: A financial services firm uses SHAP to justify individual credit decisions to both customers and regulators, proving non-discrimination.
- Global methods: Feature importance and partial dependence plots.
- Creating clear Model Cards and documentation.

5. AI Model Validation and Testing

- Designing an independent AI Validation function and process.
- Challenger Model development and comparative testing.
- Case Study: An e-commerce fraud detection model undergoes rigorous Adversarial Robustness Testing to ensure it cannot be fooled by subtly manipulated inputs.
- Testing for model stability, robustness, and performance under stress.

- Quantitative metrics for model performance and back-testing.

6. Continuous Monitoring and Performance

- Implementing Real-Time Monitoring pipelines for AI/ML models.
- Detecting and alerting on Model Drift and Data Drift in production.
- Case Study: An insurance company uses automated dashboards to flag a drop in predictive accuracy of a pricing model, tracing it back to an unannounced API change
- Automated re-training, re-calibration, and version control.
- Defining and tracking Key Risk Indicators

7. Generative AI (GenAI) Risk Management

- The unique risk profile of Large Language Models and GenAI.
- Mitigating risks of Hallucinations and unreliable outputs.
- Case Study: A corporate legal team establishes Guardrails for their internal GenAI legal research assistant to prevent the output of false precedents or confidential data leakage.
- Addressing intellectual property, copyright, and content toxicity risks.
- Prompt engineering governance and secure deployment patterns.

8. Regulatory Compliance and Future Trends

- Deep dive into the EU AI Act's high-risk classification and compliance requirements.
- Reviewing US regulatory guidance on AI/ML models.
- Case Study: A FinTech company redesigns its core underwriting system to comply with Fair Lending regulations and new transparency requirements.
- Integrating AI MRM with broader Enterprise Risk Management.
- The future of AI Audits and assurance standards.

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

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 Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

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