Datastat Research
Building Capacity in Training and Research

DATASTAT TRAINING IN

OFFICIAL COURSE PROSPECTUS

Center for Advanced Research & Professional Development

Nairobi Training Center • Global Virtual Academy • Corporate On-Site

ARTIFICIAL INTELLIGENCE AND BLOCK CHAIN

AI Agent Monitoring and Observability Training Course

Comprehensive Course Syllabus, Practical Modules & Upcoming Schedules

PROGRAM SPECIFICATIONS & HIGHLIGHTS

DURATION
5 Days Practical Hands-on

DELIVERY MODES
In-Person Class & Live Virtual

CERTIFICATION
Accredited Certificate of Completion

INTAKES / DATES
Multiple Cohort Schedules Included

PREPARED FOR:

Valued Participant

Email: training@datastatresearch.org | Issued: November 21, 2026

Academic & Professional Training Year: 2026

DATASTAT TRAINING INSTITUTE

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AI Agent Monitoring and Observability Training Course

Artificial Intelligence And Block Chain • 5 Days Intensive • Accredited Certification

Course Overview

AI Agent Monitoring and Observability Training Course is designed to equip professionals with advanced skills in AI agent lifecycle management, intelligent monitoring, AI reliability engineering, agent performance optimization, and enterprise AI governance.

Key Skills & Software Tools Covered

Agent monitoring • AI observability • Performance tracking • Anomaly detection

Upcoming Training Schedules

Confirmed cohort intakes and venues. Both physical in-person classroom and live virtual online seats are available.

TRAINING DATES	LOCATION / VENUE	FORMAT / DURATION	INVESTMENT (FEE)
21 Sep 2026 – 25 Sep 2026	Nairobi	Classroom / 5d	**$1,500 USD / KES 110,000**
21 Sep 2026 – 25 Sep 2026	Kigali	Classroom / 5d	**$3,000 USD / KES 110,000**
21 Sep 2026 – 25 Sep 2026	Dubai	Classroom / 5d	**$5,000 USD / KES 110,000**
21 Sep 2026 – 25 Sep 2026	Cape Town	Classroom / 5d	**$4,500 USD / KES 110,000**
21 Sep 2026 – 25 Sep 2026	Addis Ababa	Classroom / 5d	**$3,000 USD / KES 110,000**
21 Sep 2026 – 25 Sep 2026	Singapore	Classroom / 5d	**$5,000 USD / KES 110,000**
21 Sep 2026 – 25 Sep 2026	Istanbul	Classroom / 5d	**$5,000 USD / KES 110,000**
21 Sep 2026 – 25 Sep 2026	Bangkok	Classroom / 5d	**$5,000 USD / KES 110,000**
21 Sep 2026 – 25 Sep 2026	Accra	Classroom / 5d	**$4,000 USD / KES 110,000**
28 Sep 2026 – 2 Oct 2026	Nairobi	Classroom / 5d	**$1,500 USD / KES 110,000**
28 Sep 2026 – 2 Oct 2026	Kigali	Classroom / 5d	**$3,000 USD / KES 110,000**
28 Sep 2026 – 2 Oct 2026	Dubai	Classroom / 5d	**$5,000 USD / KES 110,000**

* Corporate discounts and customized cohort scheduling are available for teams of 3 or more participants.

Course Curriculum & Modules

AI Agent Monitoring and Observability Training Course

Introduction

AI Agent Monitoring and Observability Training Course is designed to equip professionals with advanced skills in AI agent lifecycle management, intelligent monitoring, AI reliability engineering, agent performance optimization, and enterprise AI governance. As organizations rapidly adopt autonomous AI agents, generative AI systems, large language models (LLMs), and AI-driven workflows, the ability to monitor, analyze, secure, and optimize these intelligent systems has become a critical business capability. This course explores modern AI observability frameworks, telemetry collection, distributed tracing, model behavior analysis, prompt monitoring, agent workflow analytics, and real-time performance management to ensure AI agents operate accurately, securely, and efficiently.

Participants will gain practical expertise in implementing AI monitoring platforms, operational intelligence, anomaly detection, explainable AI (XAI), AI risk management, and continuous improvement strategies. Through hands-on labs, enterprise case studies, and real-world scenarios, learners will understand how to build robust observability practices for AI agents across industries including finance, healthcare, cybersecurity, customer experience, software engineering, and business operations. The course enables organizations to achieve trustworthy AI, responsible AI adoption, scalable AI operations, and measurable AI business value.

Course Duration

5 Days

Course Objectives

By the end of this course, participants will be able to:

- Understand the foundations of AI Agent Monitoring, Observability, and AIOps practices.
- Implement AI telemetry, logging, tracing, and performance measurement frameworks.
- Monitor LLM-powered agents, autonomous workflows, and intelligent automation systems.
- Apply real-time AI performance analytics and operational intelligence techniques.
- Design AI agent dashboards, KPIs, metrics, and monitoring architectures.
- Identify and resolve AI agent failures, anomalies, hallucinations, and reliability issues.
- Implement AI governance, compliance, and responsible AI monitoring strategies.
- Apply machine learning-based anomaly detection for AI operations.
- Evaluate AI agent accuracy using quality metrics and evaluation frameworks.
- Manage AI security monitoring, threat detection, and risk visibility.
- Optimize AI agent performance through continuous monitoring and feedback loops.
- Apply observability tools and platforms for enterprise AI environments.
- Build scalable AI Operations (AI Ops) and Model Operations (MLOps) capabilities.

Target Audience

- AI Engineers and Machine Learning Engineers
- MLOps and AIOps Professionals
- Data Scientists and Data Engineers
- Cloud Architects and Solution Architects
- DevOps and Site Reliability Engineers (SREs)
- Cybersecurity Professionals and AI Security Analysts
- Business Technology Leaders and AI Transformation Managers
- Software Developers Building AI-Powered Applications

Course Modules

Module 1: Fundamentals of AI Agent Monitoring and Observability

- Introduction to AI agent ecosystems and intelligent automation monitoring
- Understanding observability principles for autonomous AI systems
- AI agent lifecycle monitoring and operational challenges
- Key differences between traditional application monitoring and AI observability
- Establishing AI reliability engineering practices
- Case Study: A financial services company implements AI customer service agents and uses observability practices to monitor response accuracy, latency, and customer satisfaction.

Module 2: AI Telemetry, Logging, and Distributed Tracing

- Collecting AI agent execution data and operational telemetry
- Designing effective AI logging architectures
- Monitoring agent workflows through distributed tracing
- Tracking prompts, responses, decisions, and tool interactions
- Building centralized AI observability pipelines
- Case Study: An e-commerce company uses distributed tracing to identify delays in AI recommendation agents and improves customer experience performance.

Module 3: AI Agent Performance Metrics and KPIs

- Defining AI agent success metrics and performance indicators
- Measuring accuracy, latency, reliability, and efficiency
- Monitoring token usage and AI infrastructure costs
- Evaluating agent decision quality and task completion rates
- Creating AI performance dashboards

- Case Study: A healthcare organization monitors AI diagnostic assistants using accuracy metrics, response times, and compliance indicators.

Module 4: Monitoring Large Language Models (LLMs) and Generative AI Systems

- Understanding LLM monitoring requirements
- Tracking hallucinations, bias, and response quality
- Implementing prompt monitoring and optimization
- Managing model drift and behavioral changes
- Evaluating generative AI reliability
- Case Study: A legal technology company monitors an AI research assistant to reduce inaccurate responses and improve document analysis quality.

Module 5: AI Agent Reliability, Anomaly Detection, and Troubleshooting

- Detecting abnormal AI agent behavior patterns
- Applying machine learning for anomaly detection
- Root cause analysis for AI failures
- Managing AI workflow interruptions and errors
- Building proactive AI incident management processes
- Case Study: A logistics company detects unusual AI scheduling decisions and automatically investigates workflow anomalies.

Module 6: AI Security Monitoring and Governance Observability

- Monitoring AI security risks and vulnerabilities
- Detecting prompt injection and adversarial attacks
- Implementing AI governance monitoring frameworks
- Tracking compliance and responsible AI requirements
- Creating audit trails for AI decisions
- Case Study: A banking institution deploys AI governance monitoring to ensure automated financial assistants comply with regulatory standards.

Module 7: AI Observability Platforms, Tools, and Implementation

- Overview of modern AI observability platforms
- Integrating monitoring into AI development pipelines
- Using dashboards and visualization systems
- Connecting AI monitoring with DevOps workflows
- Designing enterprise AI observability architectures
- Case Study: A software company integrates AI observability tools into its development pipeline to monitor coding assistants and improve reliability.

Module 8: Advanced AI Operations and Continuous Improvement

- Building enterprise AI Operations (AIOps) capabilities
- Creating continuous AI feedback and improvement loops
- Scaling AI agent monitoring across organizations
- Automating AI performance optimization
- Developing future-ready AI observability strategies
- Case Study: A global enterprise creates an AI operations center to monitor thousands of AI agents across business departments.

Training Methodology

- 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@datastatresearch.org or call +254724527104

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 DATASTAT CONSULTANCY LTD account, as indicated in the invoice so as to enable us prepare better for you.

Certification & Learning Methodology

- Hands-on practical delivery with real-world datasets, case studies, and lab exercises.
- Post-training mentorship, access to class resources, and customized follow-up support.
- Participants who successfully complete the course receive an accredited Datastat Certificate of Completion.

How to Enroll & Reserve Your Seat

1. Online Registration: Visit https://datastatresearch.org/courses/ai-agent-monitoring-and-observability-training-course to register online.
2. Email Booking: Send participant details to training@datastatresearch.org for official invoice & reservation.
3. Support & Assistance: Inquire via phone +254 724 527 104 | +254 734 969 612.