



RED HAT TRAINING

Ai253 Machine Learning Python Red Hat Openshift Course

Learn to build and deploy ML models using Python on Red Hat OpenShift. Achieve your AI-253 certification for real-world AI solutions.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

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COURSE OVERVIEW

The Ai253 Machine Learning Python Red Hat OpenShift Course is designed for IT professionals seeking to master the deployment and management of machine learning models in a robust, scalable, and cloud-native environment. This intermediate-level course dives into the practical application of Python for developing machine learning solutions, then critically focuses on leveraging Red Hat OpenShift's powerful containerization and orchestration capabilities to operationalize these models. Participants will learn how to transition from local model development to enterprise-grade MLOps, ensuring efficient and reliable delivery of AI-driven applications.

By completing this course, you will gain hands-on experience with core technologies that bridge the gap between data science and DevOps. You will understand how to containerize Python-based ML applications, deploy them onto an OpenShift cluster, and manage their lifecycle effectively. The professional benefits are immense, equipping you with highly sought-after skills to build resilient AI pipelines, accelerate innovation, and contribute significantly to organizations adopting advanced machine learning strategies, all within a standardized Red Hat ecosystem.

Duration	2 hours
Level	Intermediate
Vendor	Red Hat
Exam Code	AI-253

COURSE CURRICULUM

01 Module 1: Introduction to Machine Learning and OpenShift for AI

- Overview of Machine Learning concepts and lifecycle
- Introduction to Python's role in ML
- Understanding Red Hat OpenShift's architecture for AI workloads
- Key benefits of containerizing ML models on OpenShift

02 Module 2: Python ML Essentials for Deployment

- Review of essential Python libraries (scikit-learn, pandas)
- Building a basic ML model in Python
- Model serialization and persistence (e.g., Pickle, Joblib)
- Creating a simple REST API for model inference using Flask/FastAPI

03 Module 3: Containerizing ML Applications with Docker and OpenShift

- Introduction to Docker and containerization principles
- Writing an efficient Dockerfile for a Python ML application
- Building and testing Docker images locally
- Pushing Docker images to an OpenShift internal registry

04 Module 4: Deploying and Managing ML Models on OpenShift

- Deploying containerized ML applications as OpenShift Deployments
- Exposing ML services with OpenShift Routes
- Scaling ML inference services horizontally
- Basic monitoring and logging of ML workloads on OpenShift

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **MLOps Engineer specializing in Cloud-Native Deployments**
- > **AI/ML Platform Engineer leveraging Red Hat OpenShift**
- > **Cloud AI Solutions Architect focused on scalable ML infrastructure**

FREQUENTLY ASKED QUESTIONS

Q: What specific skills will I gain that are directly applicable to MLOps roles after completing this Ai253 course?

Upon completion of Ai253, you will be proficient in containerizing Python-based machine learning models using Docker, deploying these containerized applications onto a Red Hat OpenShift cluster, and exposing them as scalable web services. You'll gain practical experience in managing the lifecycle of ML models in a cloud-native environment, which is crucial for MLOps roles focused on operationalizing AI solutions efficiently and reliably.

Q: What are the recommended prerequisites for someone looking to take the Ai253 Machine Learning Python Red Hat OpenShift Course?

This intermediate-level course assumes a foundational understanding of Python programming, including basic data structures and functions. Familiarity with fundamental machine learning concepts (e.g., supervised learning, model training) is highly recommended. While no prior OpenShift experience is strictly required, a basic understanding of Linux command-line interface and general cloud computing concepts will be beneficial for a smoother learning experience.

Q: How does this course specifically leverage Red Hat OpenShift to enhance the deployment and scalability of Python ML models compared to other platforms?

This course uniquely focuses on Red Hat OpenShift as the deployment platform, teaching you how its enterprise-grade Kubernetes capabilities streamline the MLOps pipeline. You'll learn to use OpenShift's built-in image registry, advanced networking for exposing services securely, and powerful scaling features to handle varying inference loads. This integration provides a robust, secure, and highly available environment tailored for production-ready AI applications, leveraging Red Hat's consistent platform across hybrid cloud environments.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

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READY TO ENROL?

Take the next step in your technology career.

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