Creating Machine Learning Models with Python and Red Hat OpenShift AI (AI253)

Category: Software Development & Programming | **Vendor:** Red Hat

Duration: 40.00 hours (5 days) **32.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Related Exam: AI253

Course Overview

An introduction to Python programming, to machine learning concepts, and how to use Red Hat OpenShift AI to train ML models. Python is a popular programming language used by system administrators, data scientists, and developers to create applications, perform statistical analysis, and train AI/ML models. This course introduces the Python language and teaches students basic machine learning concepts, and the different types of machine learning. This course helps students build core skills such as using Red Hat OpenShift AI to train ML models and how to apply best practices when training models through hands-on experience. This course is based on Python 3, RHEL 9.0, Red Hat OpenShift ® 4.14, and Red Hat OpenShift AI 2.8.

About This Course

An introduction to Python programming, to machine learning concepts, and how to use Red Hat OpenShift AI to train ML models. Python is a popular programming language used by system administrators, data scientists, and developers to create applications, perform statistical analysis, and train AI/ML models. This course introduces the Python language and teaches students basic machine learning concepts, and the different types of machine learning. This course helps students build core skills such as using Red Hat OpenShift AI to train ML models and how to apply best practices when training models through hands-on experience. This course is based on Python 3, RHEL 9.0, Red Hat OpenShift ® 4.14, and Red Hat OpenShift AI 2.8.

Who Should Attend

- Data scientists and AI practitioners who want to use Red Hat OpenShift AI to build and train ML models
- Developers who want to build and integrate AI/ML enabled applications
- MLOps engineers responsible for installing, configuring, deploying, and monitoring AI/ML applications on Red Hat OpenShift AI

Prerequisites & Entry Requirements

General Prerequisites:

- Experience with Git is required
- Experience in Red Hat OpenShift is required, or completion of the Red Hat OpenShift Developer II: Building Kubernetes Applications (DO288) course
- Basic experience in the AI, data science, and machine learning fields is recommended

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Basics of Python syntax, functions and data types How to debug Python scripts using the Python debugger (pdb) Use Python data structures like dictionaries, sets, tuples and lists to handle compound data Learn Object-oriented programming in Python and Exception Handling How to read and write files in Python and parse JSON data Use powerful regular expressions in Python to manipulate text How to effectively structure large Python programs using modules and namespaces Introduction to Machine Learning Training Models Enhancing Model Training with RHOAI

Detailed Course Outline

1 - Basic Python Syntax

- Explore the basic syntax and semantics of Python

2 - Language Components

- Understand the basic control flow features and operators

3 - Collections

- Write programs that manipulate compound data using lists, sets, tuples and dictionaries

4 - Functions

- Decompose your programs into composable functions

5 - Modules

- Organize your code using Modules for flexibility and reuse

6 - Classes in Python

- Explore Object Oriented Programming (OOP) with classes and objects

7 - Exceptions

- Handle runtime errors using Exceptions

8 - Input and Output

- Implement programs that read and write files

9 - Data Structures

- Use advanced data structures like generators and comprehensions to reduce boilerplate code

10 - Parsing JSON

- Read and write JSON data

11 - Debugging

- Debug Python programs using the Python debugger (pdb)

12 - Introduction to Machine Learning

- Describe basic machine learning concepts, different types of machine learning, and machine learning workflows

13 - Training Models

- Train models by using default and custom workbenches

14 - Enhancing Model Training with RHOAI

- Use RHOAI to apply best practices in machine learning and data science

Frequently Asked Questions

Q: What delivery options are available for Creating Machine Learning Models with Python and Red Hat OpenShift AI (AI253)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: Which exam does this course prepare me for?

This course prepares you for the AI253 official exam. You can take this exam at any exam center across United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online wherever you are located.

Q: How many CPD hours does this course provide?

The 5-day Creating Machine Learning Models with Python and Red Hat OpenShift AI (AI253) course provides up to 32.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Creating Machine Learning Models with Python and Red Hat OpenShift AI (AI253) training?

The training takes place over 5 day(s), with each day lasting approximately 40.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Creating Machine Learning Models with Python and Red Hat OpenShift AI (AI253)?

Yes, we provide corporate training, dedicated training, and closed classes for Creating Machine Learning Models with Python and Red Hat OpenShift AI (AI253). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: Why choose Nexus Human for Creating Machine Learning Models with Python and Red Hat OpenShift AI (AI253)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Creating Machine Learning Models with Python and Red Hat OpenShift AI (AI253) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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