Amazon SageMaker Studio for Data Scientists

Category: AI, Data & Analytics | **Vendor:** Amazon Web Services

Duration: 24.00 hours (3 days) **19.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Amazon SageMaker Studio helps data scientists prepare, build, train, deploy, and monitor machine learning (ML) models quickly. It does this by bringing together a broad set of capabilities purpose-built for ML. This course prepares experienced data scientists to use the tools that are a part of SageMaker Studio, including Amazon CodeWhisperer and Amazon CodeGuru Security scan extensions, to improve productivity at every step of the ML lifecycle.

About This Course

Amazon SageMaker Studio helps data scientists prepare, build, train, deploy, and monitor machine learning (ML) models quickly. It does this by bringing together a broad set of capabilities purpose-built for ML. This course prepares experienced data scientists to use the tools that are a part of SageMaker Studio, including Amazon CodeWhisperer and Amazon CodeGuru Security scan extensions, to improve productivity at every step of the ML lifecycle.

Who Should Attend

Experienced data scientists who are proficient in ML and deep learning fundamentals.

Prerequisites & Entry Requirements

General Prerequisites:

We recommend that all attendees of this course have:

- Experience using ML frameworks
- Python programming experience
- At least 1 year of experience as a data scientist responsible for training, tuning, and deploying models
- AWS Technical Essentials digital or classroom training

Learning Outcomes

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

In this course, you will learn to:

- Accelerate the process to prepare, build, train, deploy, and monitor ML solutions using Amazon SageMaker Studio

Detailed Course Outline

Day 1

Module 1: Amazon SageMaker Studio Setup

- JupyterLab Extensions in SageMaker Studio
- Demonstration: SageMaker user interface demo

Module 2: Data Processing

- Using SageMaker Data Wrangler for data processing
- Hands-On Lab: Analyze and prepare data using Amazon SageMaker Data Wrangler
- Using Amazon EMR
- Hands-On Lab: Analyze and prepare data at scale using Amazon EMR
- Using AWS Glue interactive sessions
- Using SageMaker Processing with custom scripts
- Hands-On Lab: Data processing using Amazon SageMaker Processing and SageMaker Python SDK
- SageMaker Feature Store
- Hands-On Lab: Feature engineering using SageMaker Feature Store

Module 3: Model Development

- SageMaker training jobs
- Built-in algorithms
- Bring your own script
- Bring your own container
- SageMaker Experiments
- Hands-On Lab: Using SageMaker Experiments to Track Iterations of Training and Tuning Models

Day 2

Module 3: Model Development (continued)

- SageMaker Debugger
- Hands-On Lab: Analyzing, Detecting, and Setting Alerts Using SageMaker Debugger
- Automatic model tuning
- SageMaker Autopilot: Automated ML
- Demonstration: SageMaker Autopilot
- Bias detection
- Hands-On Lab: Using SageMaker Clarify for Bias and Explainability
- SageMaker Jumpstart

Module 4: Deployment and Inference

- SageMaker Model Registry
- SageMaker Pipelines
- Hands-On Lab: Using SageMaker Pipelines and SageMaker Model Registry with SageMaker Studio
- SageMaker model inference options
- Scaling
- Testing strategies, performance, and optimization

- Hands-On Lab: Inferencing with SageMaker Studio

Module 5: Monitoring

- Amazon SageMaker Model Monitor
- Discussion: Case study
- Demonstration: Model Monitoring

Day 3

Module 6: Managing SageMaker Studio Resources and Updates

- Accrued cost and shutting down
- Updates

Capstone

- Environment setup
- Challenge 1: Analyze and prepare the dataset with SageMaker Data Wrangler
- Challenge 2: Create feature groups in SageMaker Feature Store
- Challenge 3: Perform and manage model training and tuning using SageMaker Experiments
- (Optional) Challenge 4: Use SageMaker Debugger for training performance and model optimization
- Challenge 5: Evaluate the model for bias using SageMaker Clarify
- Challenge 6: Perform batch predictions using model endpoint
- (Optional) Challenge 7: Automate full model development process using SageMaker Pipeline, Module 5: Monitoring, Module 7: Capstone, Module 6: Managing SageMaker Studio Resources and Updates, Module 1: Setup and SageMaker Navigation, Module 2: Data Processing, Module 3: Model Development, Module 4: Deployment and Inference

Skills You Will Learn:

In this course, you will learn to:

- Accelerate the process to prepare, build, train, deploy, and monitor ML solutions using Amazon SageMaker Studio

Frequently Asked Questions

Q: What delivery options are available for Amazon SageMaker Studio for Data Scientists?

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: How many CPD hours does this course provide?

The 3-day Amazon SageMaker Studio for Data Scientists course provides up to 19.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Amazon SageMaker Studio for Data Scientists training?

The training takes place over 3 day(s), with each day lasting approximately 24.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Amazon SageMaker Studio for Data Scientists?

Yes, we provide corporate training, dedicated training, and closed classes for Amazon SageMaker Studio for Data Scientists. 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: What related terms do people search for?

Popular related searches include: Amazon SageMaker Studio for Data Scientists, Machine Learning, ASSDS, Amazon Web Services, vILT

Q: Why choose Nexus Human for Amazon SageMaker Studio for Data Scientists?

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 Amazon SageMaker Studio for Data Scientists 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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