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AMAZON SAGEMAKER STUDIO FOR DATA SCIENTISTS

Course Code: 110001

Explore Amazon SageMaker Studio helps data scientists prepare, build, train, deploy, and monitor machine learning (ML) models.

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.

- Course level: Advanced
- Duration: 3 days

Activities

This course includes presentations, hands-on labs, demonstrations, discussions, and a capstone project.

What You'll Learn

In this course, you will learn to:

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

Who Needs to Attend

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

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

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CLASSROOM LIVE	$2,665 CAD	3 Day

Classroom Live 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
- Using AWS Glue interactive sessions
- Using SageMaker Processing with custom scripts

Module 3: Model Development

- SageMaker training jobs
- Built-in algorithms
- Bring your own script
- Bring your own container
- SageMaker Experiments

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

- SageMaker Jumpstart

Module 4: Deployment and Inference

- SageMaker Model Registry
- SageMaker Pipelines
- SageMaker model inference options
    - Scaling
    - Testing strategies, performance, and optimization

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

Classroom Live Labs

- 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
- Hands-On Lab: Analyze and prepare data at scale using Amazon EMR
- Hands-On Lab: Using SageMaker Experiments to Track Iterations of Training and Tuning Models
- Hands-On Lab: Using SageMaker Clarify for Bias and Explainability
- Hands-On Lab: Using SageMaker Pipelines and SageMaker Model Registry with SageMaker Studio
- Hands-On Lab: Inferencing with SageMaker Studio

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VIRTUAL CLASSROOM LIVE	$2,665 CAD	3 Day

Virtual Classroom Live Outline

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- Hands-On Lab: Inferencing with SageMaker Studio

May 11 - 13, 2026 | 9:00 AM - 5:00 PM EDT

Aug 10 - 12, 2026 | 9:00 AM - 5:00 PM EDT

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PRIVATE GROUP TRAINING	3 Day

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.

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