Intellectual Point
EXCELLENCE THROUGH EDUCATION

AWS Certified Machine Learning – Specialty Training Course

AWS Certified Machine Learning - Specialty validates expertise in building, deploying, and maintaining machine learning solutions on the AWS platform, ensuring proficiency in data exploration, feature engineering, and model optimization.

AIML-201

Course Outcomes

Professional, practical, & hands-on live instructor-led training

Advance your skills and graduate as a certified professional, with the skills, experience, and job-search know how to get your career moving.
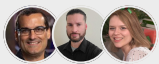
Start Today

Potential Career Tracks

AI/ML Developer   Machine Learning Engineer

Data Engineer   AWS Solutions Architect

Cloud Software Engineer   Data Scientist

Taught by Industry Veterans &
World Class Instructors

Introduction to AWS Certified Machine Learning - Specialty

▶ Course Overview

Intellectual Point's AWS Certified Machine Learning - Specialty training course is meticulously designed to equip learners with the critical knowledge and skills required to deploy advanced machine learning models on the AWS platform. This course prepares candidates for the AWS Certified Machine Learning - Specialty exam while ensuring they gain practical expertise in utilizing AWS machine learning services effectively. Whether you are a machine learning engineer or a data scientist, this course provides comprehensive insights into AWS environments' machine learning workflows, from learning about data exploration to modeling and operationalizing machine learning applications.

Throughout the training, you will explore key concepts such as defining machine learning problems, selecting appropriate AWS solutions, implementing data pipelines, and optimizing model performance. The course includes hands-on projects and labs, enabling you to apply techniques like data preprocessing, feature engineering, and automation within AWS. By the end of the program, you'll be ready to not only pass the certification exam but also apply machine learning solutions confidently in cloud-based environments.

⚡ Obtainable Skills

Machine Learning Workflow in AWS   Feature Engineering Techniques   ML Model Optimization

AWS Data Pipeline Implementation   AWS ML Services Utilization   Data Preprocessing in Cloud

Operationalizing ML Models   Cloud-based Model Deployment   Certification Exam Preparation

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Course Insights

👥 Audience Profile

This AWS Certified Machine Learning - Specialty course is ideal for data scientists, machine learning engineers, and developers with a baseline understanding of core Software Engineering principles and AWS services. Targeted at professionals and enthusiasts with experience in machine learning and those looking to advance their knowledge specifically within the AWS ecosystem, it suits individuals interested in leveraging cloud solutions to build scalable and efficient ML models. The course is also perfect for those aiming to validate their AWS and machine learning skills with a prestigious certification that can enhance career opportunities within tech-driven sectors.

📖 Course Outcomes
By the end of this course, participants will:

1 Develop the ability to define and solve machine learning problems using AWS solutions.

2 Implement and manage AWS data pipelines to support machine learning tasks.

3 Optimize machine learning models on AWS for enhanced performance and efficiency.

4 Gain hands-on experience in deploying and operationalizing ML models in cloud environments.

5 Thoroughly prepare for the AWS Certified Machine Learning - Specialty exam to excel in your career.

Module by Module Learning *Outline*

Module 1: Introduction to AWS Machine Learning

Learning Objectives:

- Understand the AWS platform and its support for machine learning workflows.
- Learn foundational concepts necessary for deploying machine learning models on AWS.

Topics Covered

Overview of AWS Machine Learning Services:

- Introduction to AWS services such as SageMaker, Comprehend, and Rekognition.
- Benefits of using AWS for machine learning tasks.

AWS Environment Setup:

- Configuring your AWS account for machine learning.
- Navigating the AWS Management Console and CLI.

Module 2: Defining Machine Learning Problems on AWS

Learning Objectives:

- Develop skills to identify and define machine learning problems suitable for AWS solutions.
- Understand how to select the appropriate AWS service for different machine learning tasks.

Topics Covered

Problem Identification and Solution Mapping:

- Techniques for defining business problems as machine learning tasks.
- Mapping problems to the most suitable AWS ML services.

Use Cases and Service Selection:

- Analysis of various machine learning use cases within AWS.
- Criteria and considerations for choosing AWS services.

Module 3: Building Data Pipelines on AWS

Learning Objectives:

- Explore data pipeline implementation within AWS to support machine learning processes.
- Gain skills in automating data preprocessing and management tasks.

Topics Covered

Data Ingestion and Preprocessing:

- Using AWS Data Pipeline and Glue for data ingestion.
- Techniques for cleansing and transforming data in the cloud.

Automation and Workflow Management:

- Automating data workflows with AWS Step Functions.
- Building efficient and scalable data pipelines.

Module 4: Feature Engineering and Model Training

Learning Objectives:

- Master feature engineering techniques to enhance model performance.
- Learn the process of training machine learning models on AWS.

Topics Covered

Feature Extraction and Selection:

- Techniques for selecting and engineering features.
- Utilization of AWS tools for automated feature extraction.

Model Training and Evaluation:

- Training models with AWS SageMaker.
- Techniques for evaluating model accuracy and performance.

Module 5: Model Optimization and Tuning

Learning Objectives:

- Optimize machine learning models for performance and efficiency on AWS.
- Learn techniques for hyperparameter tuning and resource allocation.

Topics Covered

Hyperparameter Tuning:

- Strategies for tuning models using AWS SageMaker Hyperparameter Optimization.
- Balancing performance and resource usage.

Performance Monitoring and Scaling:

- Tools and metrics for monitoring model performance.
- Techniques for scaling models with AWS infrastructure.

Module 6: Certification Preparation and Review

Learning Objectives:

- Prepare thoroughly for the AWS Certified Machine Learning Specialty exam.
- Reinforce understanding of key concepts covered throughout the course.

Topics Covered

Exam Strategy and Practice Questions:

- Overview of exam structure and pattern.
- Practice questions and exam taking strategies.

Review of Core Concepts:

- Recap of machine learning workflows on AWS.
- Emphasis on critical skills and knowledge areas for the exam.