AWS Ramp-Up Guide: Machine Learning

Data scientists and developers can learn how to integrate machine learning (ML) and artificial intelligence (AI) into applications. You'll also learn the tools and techniques for data platform and data science to build ML applications. This guide can also help prepare you for the AWS Certified Machine Learning – Specialty certification exam. If you're specifically interested in digital courses and labs to help you develop these skills, explore the Machine Learning Learning Plan at **explore.skillbuilder.aws**. To provide suggestions on Ramp-Up Guides, please contact **rampupguides@amazon.com.**

Learn the fundamentals of AWS Cloud		
Learning Resource	**Duration**	**Type**
AWS Ramp-Up Guide: Cloud Practitioner		Ramp-Up Guide

Step 1: Learn AWS Machine Learning (ML) fundamentals		
Learning Resource	**Duration**	
Demystifying AI/ML/DL	45 minutes	Digital Training »
Machine Learning Essentials for Business and Technical Decision Makers	90 minutes	Digital Training »
Machine Learning for Business Challenges	1 hour	Digital Training »
ML Building Blocks: Services and Terminology	40 minutes	Digital Training »
Process Model: CRISP-DM on the AWS Stack	50 minutes	Digital Training »
Machine Learning Terminology and Process	1 hour	Digital Training
AWS Machine Learning	30 minutes	Webpage »
Exploring the Machine Learning Toolset	80 minutes	Digital Training »
The Elements of Data Science	8 hours	Digital Training »

Step 2.1: Learn Data Platform Engineering on AWS		
Learning Resource	**Duration**	
Machine Learning Security	2 hours	Digital Training
Building Data Lakes on AWS	1 day	Classroom Training
Big Data on AWS	3 days	Classroom Training
Step 2.2: Learn Data Science on AWS		
Learning Resource	**Duration**	
Math for Machine Learning	8 hours	Digital Training »
Developing Machine Learning Applications	2 hours	Digital Training »

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The Machine Learning Pipeline on AWS	4 days	[Classroom Training](#)
Deep Learning on AWS	1 day	[Classroom Training »](#)
Amazon SageMaker: Build an Object Detection Model Using Images Labeled with Ground Truth	70 minutes	[Digital Training »](#)
Machine Learning University (MLU) Accelerated Tabular Data	3 hours	[Video »](#)
Machine Learning University (MLU) Accelerated Natural Language Processing	3 hours	[Video »](#)
Machine Learning University (MLU) Accelerated Computer Vision	3 hours	[Video »](#)
Amazon SageMaker Technical Deep Dive Series	2.5 hours	[Video »](#)
Data Science on AWS Workshop	4+ hours	[Workshop](#)
Data Science Capstone: Real World Machine Learning Decisions	50 minutes	[Digital Training »](#)
Practical Data Science Specialization	3 months	[Coursera Digital Training](#)
Step 2.3: Learn ML Engineering on AWS		
Learning Resource	**Duration**	
Practical Data Science with Amazon SageMaker	1 day	[Classroom Training »](#)
DevOps Engineering on AWS	3 days	[Classroom Training](#)
MLOps Engineering on AWS	3 days	[Classroom Training](#)
Operationalizing the Machine Learning Pipeline	3+ hours	[Workshop](#)
Step 2.4: Learn tp build ML Applications on AWS		
Learning Resource	**Duration**	
Amazon SageMaker: Simplifying ML Application Development	4 weeks	[edX Digital Training](#)
Improve your Java Code using Amazon CodeGuru	2 weeks	[edX Digital Training](#)
Improve your Python Code using Amazon CodeGuru	2 weeks	[edX Digital Training](#)
Improve your Java Code using Amazon CodeGuru	2 weeks	[Udemy Digital Learning](#)
Improve your Python Code using Amazon CodeGuru	2 weeks	[Udemy Digital Learning](#)
Improve your Java Code using Amazon CodeGuru	2 weeks	[Coursera Digital Training](#)
Improve your Python Code using Amazon CodeGuru	2 weeks	[Coursera Digital Training](#)
Fraud Detection Using Machine Learning	1 hour	[Webpage](#)

Step 3: Prepare for and take the AWS Certified Machine Learning - Specialty certification exam		
Learning Resource	**Duration**	
Exam Readiness: AWS Certified Machine Learning – Specialty	3.5 hours	[Digital Training »](#)
AWS Certified Machine Learning – Specialty exam guide	1 hour	[Exam Guide »](#)
AWS Certified Machine Learning – Specialty sample questions	4 hours	[Sample Questions »](#)
AWS Certified Machine Learning – Specialty exam	3 hours	[Exam »](#)

Explore additional resources		
Learning Resource	**Description**	
Architecture Best Practices for Machine Learning	Learn how to quickly and easily build, train, and deploy machine learning models at any scale.	[Explore »](#)
Learning Library	Continue to learn by exploring our extensive portfolio of free digital training and classroom training. Filter according to your preferences, or find a specific course using the "Search" box.	[Explore »](#)
AWS Whitepapers & Guides	Explore technical whitepapers, technical guides, reference material, and reference architecture diagrams, all authored by AWS and the AWS community.	[Explore »](#)
AWS User Group	Join and connect with AWS users all over the world to share ideas and learn.	[Explore »](#)
AWS Events & Webinars	Connect with, collaborate with, and learn from AWS experts. Key events include AWS.	[Explore »](#)
AWS Podcast	Listen and learn about AWS.	[Explore »](#)
AWS Blog	Read about the latest launches from AWS Technical Evangelist Jeff Barr and others.	[Explore »](#)
AWS Documentation	Search for AWS service guides, API references, tutorials, projects, SDKs, and toolkits.	[Explore »](#)
AWS Knowledge Center	Review AWS Support's responses to AWS customers' most frequently asked questions.	[Explore »](#)
AWS FAQs	Find answers to product- and technical-related frequently asked questions.	[Explore »](#)

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AWS Hands-On Tutorials	Get started with 10-minute, step-by-step tutorials to launch your first application.	Explore »
AWS Solutions Library	Use vetted, technical reference implementations designed to help you solve common problems and build faster.	Explore »
AWS YouTube Channel	Explore a wide variety of AWS topics by watching videos created by AWS experts across the world.	Explore »

For a training plan customized for your requirements,
contact your AWS Account Manager or contact us **here**

We would love to hear from you.
Provide your feedback on this AWS Ramp-Up Guide **here**

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