

# AWS Ramp-Up Guide: Machine Learning

For Data Scientists and Developers

Updated February 2021

AWS Training and Certification has created this and other **AWS Ramp-Up Guides** to help build your knowledge of the AWS Cloud. Each expertly curated guide features free digital training, classroom courses, videos, whitepapers, certifications, and other information you're looking for. To enroll in training and certification exams, and track your progress, visit [aws.training](https://aws.training) and set up a free account. To provide suggestions on Ramp-Up Guides, please contact [rampupguides@amazon.com](mailto:rampupguides@amazon.com)

## Learn the fundamentals of the AWS Cloud

LEARNING RESOURCE	DURATION	TYPE
What is Cloud Computing?	10 minutes	<a href="#">Webpage »</a>
Overview of AWS	2 hours	<a href="#">Whitepaper »</a>
<i>AWS Cloud Practitioner Essentials</i>	6+ hours	<a href="#">Digital Training »</a> <a href="#">Classroom Training »</a>
Cloud Computing with AWS	10 minutes	<a href="#">Webpage »</a>
AWS Glossary	30 minutes	<a href="#">Whitepaper »</a>
<i>Job Roles in the Cloud</i>	30 minutes	<a href="#">Digital Training »</a>

## Step 1: Learn AWS Machine Learning fundamentals

LEARNING RESOURCE	DURATION	TYPE
<i>Demystifying AI/ML/DL</i>	45 minutes	<a href="#">Digital Training »</a>
<i>Machine Learning for Leaders</i>	10 minutes	<a href="#">Digital Training »</a>
<i>Machine Learning for Business Challenges</i>	1 hour	<a href="#">Digital Training »</a>
<i>ML Building Blocks: Services and Terminology</i>	40 minutes	<a href="#">Digital Training »</a>

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## Step 1: Learn AWS Machine Learning fundamentals

LEARNING RESOURCE	DURATION	TYPE
<i>Process Model: CRISP-DM on the AWS Stack</i>	50 minutes	<a href="#">Digital Training »</a>
Machine Learning Foundations: Evolution of ML and AI	1 hour	<a href="#">Whitepaper »</a>
AWS Machine Learning	30 minutes	<a href="#">Webpage »</a>
<i>Exploring the Machine Learning Toolset</i>	80 minutes	<a href="#">Digital Training »</a>
<i>Math for Machine Learning</i>	8 hours	<a href="#">Digital Training »</a>
<i>The Elements of Data Science</i>	8 hours	<a href="#">Digital Training »</a>

## Step 2: Learn AWS Machine Learning cloud concepts and best practices

LEARNING RESOURCE	DURATION	TYPE
Managing Machine Learning Projects	1 hour	<a href="#">Whitepaper »</a>
Power Machine Learning at Scale	1 hour	<a href="#">Whitepaper »</a>
<i>Machine Learning Terminology and Process</i>	1 hour	<a href="#">Digital Training »</a>
<i>Machine Learning Security</i>	30 minutes	<a href="#">Digital Training »</a>
<i>Developing Machine Learning Applications</i>	2.5 hours	<a href="#">Digital Training »</a>
<i>Amazon SageMaker: Build an Object Detection Model Using Images Labeled with Ground Truth</i>	70 minutes	<a href="#">Digital Training »</a>
<i>Practical Data Science with Amazon SageMaker</i> <b>OR</b> <i>The Machine Learning Pipeline on AWS</i>	1 day	<a href="#">Classroom Training »</a>
	4 days	<a href="#">Classroom Training »</a>
<i>Amazon SageMaker: Simplifying ML Application Development (on edX)</i>	4 weeks	<a href="#">edX Digital Training »</a>

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## Step 2: Learn AWS Machine Learning cloud concepts and best practices

LEARNING RESOURCE	DURATION	TYPE
Amazon SageMaker Technical Deep Dive Series	2.5 hours	<a href="#">Video »</a>
Machine Learning University (MLU) <i>Accelerated Tabular Data</i>	3 hours	<a href="#">Video »</a>
Machine Learning University (MLU) <i>Accelerated Natural Language Processing</i>	3 hours	<a href="#">Video »</a>
Machine Learning University (MLU) <i>Accelerated Computer Vision</i>	3 hours	<a href="#">Video »</a>
Deep Learning on AWS Technical Guide	1 hour	<a href="#">Guide »</a>
<i>Deep Learning on AWS</i>	1 day	<a href="#">Classroom Training »</a>
<i>Big Data on AWS</i>	3 days	<a href="#">Classroom Training »</a>
<i>Data Science Capstone: Real World Machine Learning Decisions</i>	50 minutes	<a href="#">Digital Training »</a>
AWS Machine Learning blog	5 minutes	<a href="#">Blog »</a>

## Step 3: Prepare for and take the AWS Certified Machine Learning - Specialty certification exam

LEARNING RESOURCE	DURATION	TYPE
<i>Exam Readiness: AWS Certified Machine Learning – Specialty</i>	3.5 hours	<a href="#">Digital Training »</a>
	1 day	<a href="#">Classroom Training »</a>
AWS Certified Machine Learning – Specialty exam guide and sample questions	1 hour	<a href="#">Exam Guide »</a>
	4 hours	<a href="#">Sample Questions »</a>
AWS Certified Machine Learning – Specialty practice exam	4 hours	<a href="#">Practice Exam »</a>
AWS Certified Machine Learning – Specialty Certification exam	3 hours	<a href="#">Exam »</a>

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## Explore additional resources

LEARNING RESOURCE	DESCRIPTION	
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.	<a href="#">Explore »</a>
AWS Whitepapers & Guides	Explore technical whitepapers, technical guides, reference material, and reference architecture diagrams, all authored by AWS and the AWS community.	<a href="#">Explore »</a>
AWS User Group	Join and connect with AWS users all over the world to share ideas and learn.	<a href="#">Explore »</a>
AWS Events & Webinars	Connect with, collaborate with, and learn from AWS experts.	<a href="#">Explore »</a>
AWS Podcast	Listen and learn about AWS.	<a href="#">Explore »</a>
AWS Blog	Read about the latest launches from AWS Technical Evangelist Jeff Barr and others.	<a href="#">Explore »</a>
AWS Documentation	Search for AWS service guides, API references, tutorials, projects, SDKs, and toolkits.	<a href="#">Explore »</a>
AWS Knowledge Center	Review AWS Support’s responses to AWS customers’ most frequently asked questions.	<a href="#">Explore »</a>
AWS FAQs	Find answers to product- and technical-related frequently asked questions.	<a href="#">Explore »</a>
AWS Hands-On Tutorials	Get started with 10-minute, step-by-step tutorials to launch your first application.	<a href="#">Explore »</a>
AWS Solutions Library	Use vetted, technical reference implementations designed to help you solve common problems and build faster.	<a href="#">Explore »</a>
AWS YouTube Channel	Explore a wide variety of AWS topics by watching videos created by AWS experts across the world.	<a href="#">Explore »</a>

**For a training plan customized for your requirements,**  
contact your AWS Account Manager or contact us [here](#)

**We would love to hear from you.**  
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