

Top 15 AWS Machine Learning Tools in the Cloud



Amazon Web Service (AWS) is the biggest cloud infrastructures with 175 featured services, managing everything from machine learning and the Internet of Things (IoT) to data analytics. Amazon commands its position as one of the front runners in the machine learning concepts alongside its counterparts.

Over the last two years, the US tech giant has invested significantly in this technology and made it hassle-free for developers to develop and deploy. Most organizations leave no stone unturned to stay ahead on top of things in the current tech environment.

Machine learning is one of the fast-growing solutions in technology. Many tech giants have already adopted machine learning technology and ached their growth to stay for long in this competitive world.

In its recent report on Cloud, tech firm Flexera revealed that 81% of heavy cloud users use AWS more frequently over a long time by organizations. In addition, according to a

separate analysis by the World Economic Forum, 97 million new roles may emerge in [machine learning and Artificial Intelligence](#) by 2025 for developers.

ML is one of the pivotal technologies for many enterprises. Despite the scope of investment and improvement, training, maintaining, and developing ML models has been cumbersome and ad-hoc.

Useful Link: [Amazon Aurora Vs Amazon RDS Comparison: Which is the Best Database Service?](#)

Amazon machine learning tools are different products that offer multiple patterns like improving customer experience, making accurate predictions, getting deeper insights from data, and reducing operational overhead for developers.

AWS offers various [cloud services](#), technologies, and a wider and deep variety of ML services for different business. Before adopting ML tools, go through the detailed info and pick the best service that suits your organization. The American organization is currently offering 20 machine learning tools on its platform

Let's dive deep into the top 15 of the machine learning tools offered by Amazon Web Services.

1) SageMaker



AWS SageMaker is a cloud-based machine learning service that empowers developers and data scientists to create, train, and deploy ML models into a production-ready hosted environment within a single platform. This ML tool has an auto-pilot option, which



will automatically process and run the data into multiple algorithms. It also helps developers pick the best algorithm for their solution instead of manually training and testing multiple models.

The tool is apt for a data scientist who wants to build an end-to-end machine learning solution for their projects, and it is also a fast, efficient, and cost-effective platform. SageMaker makes it easier to handle ML model concepts from research to production in a tiny time, and it is more progressive, more predictable, and even more advanced.

*In 2021, Amazon unveiled six new **AWS SageMaker features**, which are:*

a) SageMaker Canvas

Using a visual point and click interface for business analysts, **SageMaker Canvas** generates more accurate machine learning predictions, and no code is required. It aims to help business analysts build their own machine learning models without depending on data engineers. An analysis by Gartner survey predicted that 70% of new applications developed by enterprises will operate no code (or) low code technologies by 2025.

b) SageMaker Ground Truth Plus

It provides fully managed data labelling operations that easily built high accurate training datasets and a highly skilled workforce for machine learning. Ground Truth Plus is a service of **AWS SageMaker** that offers data labelling services to customers quickly and reduces price up to 40 percent by using an expert workforce.

c) SageMaker Studio

It is a free service (no charge, no-setup notebook) built for learning and experimenting with **machine learning tools**. However, data scientists, developers, and students mostly prefer the SageMaker Studio service to learn and experiment with ML.

d) SageMaker Training Compiler

It guides training deep learning models up to 50 percent faster through more efficient use of GPU instances. In addition, compilers are entirely responsible for translating programming languages like Python or Java into machine code.

e) SageMaker Inference Recommender

SageMaker Inference Recommender is a new service tool that allows data engineers to safely decrease the needed time to get machine learning models into the production environment. In addition, it automates load testing and model tuning across machine learning instances with the best price performance.

f) SageMaker Serverless Inference

This new tool allows users to deploy machine learning models for ML inference without having any underlying infrastructure. This tool is a cost-effective option for clients that have unpredictable prediction traffic patterns with long idle times.

Useful Link: [MongoDB Vs RDBMS: Comparing the Big 2 Database Services](#)

2) CodeGuru



Amazon **CodeGuru** is a new tool for developers that recommends writing high-quality, cost-efficient java code. It consists of mainly two components – Profiler and Reviewer.

a) CodeGuru Profiler

CodeGuru profiler searches data runtime performance of your live application and improves ways to fine-tune your application performance like excessive usage of inefficient libraries, expensive deserialization, excessive logging, and expensive objects.

b) CodeGuru Reviewer

AWS **CodeGuru Reviewer** is a tool that uses machine learning and programs analysis to find critical issues such as bugs and security, which are hard for developers to detect during application development. It also provides suggestions for improving your Python and Java code.

3) Comprehend



Comprehend

Using machine learning, and natural language processing (NPL) tool, **AWS Comprehend** offers you to detect relationships and valuable insights in the text. Amazon Comprehend provides six different APIs (Application Program Interface) to gather insights from text.

- a) Language Identification API
- b) Entity Recognition API
- c) Key phrase Extraction API
- d) Personally Identifiable API
- e) Syntax API
- f) Sentiment Analysis API

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4) Forecast



Forecast

AWS Forecast is a fully managed machine learning service designed to automate the data, detect the key attributes, and pick the right algorithms to produce an accurate time-series forecast. This technology offers future business outcomes for FBA sellers, including product demands, financial performance, and resource needs by using ML software.

5) Fraud Detector



Fraud Detector

Unlike many services on the market, the **Amazon fraud detector** is a highly specialized AI tool that is built to identify potentially fraudulent activities such as stolen debit cards, credit cards, and fake registrations more quickly. The Amazon Fraud detector provides a special model to catch fraud faster across various use cases with future transformation, enrichments, and tailored algorithms.

6) Kendra



Kendra

Powered by machine learning, **Amazon Kendra** is an intelligent search service that uses natural language to find results accurately for your application and websites based on customer queries. Using Amazon Kendra, users can more simply find the information they require within the bulk amount of data spread across various sources.

7) Lex



Lex

AWS Lex is a fully managed web platform that permits developers to publish text chat bots or voice across multiple platforms like chat services, web apps, and mobile devices. With this new tool, no deep learning expert is essential to create a text chat boot, and you specify the conversion workflow in **Amazon Lex**.

Under the hood, AWS Lex provides automatic speech recognition (ASR) that helps to convert speech to text. Additionally, it uses natural language understanding (NLU) that helps to recognize the intent of the text.

8) Personalize



Personalize

It is a low code matured machine learning service designed for customers to create private and customized personalization recommendations through an application program interface (API). No machine learning expertise is needed.

It makes even production much more simple for developers to build an application of delivering a various array of personalization experiences such as customized direct marketing, product recommendations, and personalized product re-ranking.

Useful Link: [Which Cloud has Better Private Connectivity: AWS or Azure or GCP?](#)

9) Polly



Amazon Polly

AWS Polly is an advanced Text-to-Speech service that converts text into the human-like-text to speech voices. Moreover, it offers lifelike voice outputs across multiple languages like Japanese, Korean, and Chinese. This allows users to develop automated responses in the languages of their choice and convenience.

10) Rekognition



Amazon **Rekognition** is a cloud-based service that makes it simple to join your application's image analysis and video analysis by using deep learning, highly scalable, and proven technology without having the ML tool.

11) Textract



In a simple way, **AWS Textract** is a deep learning-based service that automatically extracts text, handwriting and detects data from scanned copies. Before the discovery of

Amazon Textract, the enterprises followed the traditional way of hiring the person to extract the data from the documents such as tax documents or contracts.

12) Transcribe



Transcribe

Amazon Transcribe is an automatic speech-to-text solution platform that uses ML models to convert audio to text and produce a review or read transcripts. AWS introduced a new feature called Amazon Transcribe Call Analytics that lets you extract valuable insights from a client conversation with an API call.

Useful Link: [Serverless Vs Containers: Comparison Between Top Two Cloud Services](#)

13) Translate



Translate

Amazon Translate is AI/ML family member, and it is a neural machine translation service that offers you to translate the bulk amount of text from one language to another language. It supports 75 languages such as Hindi, Tamil, Telugu, Gujarati, Malayalam,

Chinese (Traditional), Spanish, French, Russian, and many more to the list. Additionally, Amazon Translate supports 5000 language combinations also.

14) DeepLens



AWS DeepLens

Amazon **DeepLens** is a machine learning enabled video camera with inbuilt deep learning capabilities that helps you to recognize objects or characters that appeared in a video stream in real time by using AI technology.

15) DeepRacer



If you are a lover of self-driving cars, then **DeepRacer** will definitely excites you. DeepRacer is a small autonomous race vehicle project that you can digitally control a real-life car based on reinforcement learning.

Useful Link: [A Guide to DevOps Implementation on Google Cloud](#)

Conclusion

On a conclusion note, Amazon Web Services has a lot of machine learning tools in their armoury for developers. Moreover, Amazon continues to add new **machine learning tools and services** for every few months based on new use cases. While that is fascinating, the new additions and plethora of choices would consume a lot of time as one would have to assess which is right for them. This is where we come in.

Veritis is one of the [best IT consulting services](#) that help clients to overcome critical business challenges. If your organization is looking forward to adopt the machine learning tools that Amazon offers, then get in contact with our **Veritis** team expertise in AWS machine learning solution and will guide you the best solution for your case.

Services