

20 Game-Changing AWS Services for Machine Learning Engineers (pg. 1)



1. **Amazon SageMaker** - makes it easy to build, train, and deploy machine learning models at scale. It provides a complete environment for developing, training, and deploying models, including built-in algorithms, pre-built notebooks, and automatic scaling.



2. **Amazon S3** - scalable and secure object storage that can be used to store and retrieve large amounts of data. It is commonly used as a data lake to store training and test data for machine learning models.



3. **Amazon EC2** - resizable compute capacity in the cloud. It can be used to run training jobs and inference for machine learning models. EC2 offers a wide range of instance types and sizes, including GPU and CPU optimized instances, and supports various operating systems and software platforms.



4. **Amazon RDS** - a managed database service that allows you to easily set up, operate, and scale relational Online Transaction Processing (OLTP) databases in the cloud. It can be used to store and manage data for machine learning models, supporting popular database engines such as MySQL, PostgreSQL, Oracle, and Microsoft SQL Server.



5. **AWS Glue** - automates Extract-Transform-Load (ETL) data preparation tasks for machine learning. Supports various data sources and formats, offers automatic schema discovery and job generation, and integrates with other AWS services.



6. **Amazon Comprehend** - natural language processing that can be used to extract insights and relationships from text data.



7. **Amazon Rekognition** - a computer vision service that can be used to analyze images and videos. It can be used to preprocess image data for machine learning models.



8. **Amazon SageMaker Ground Truth** - a data labeling service that can be used to create high-quality labeled datasets for training and testing machine learning models. The "Plus" option even provides access to an expert workforce that is trained on ML tasks.



9. **Amazon SageMaker Neo** - automatically optimizes the performance of your machine learning models for inference to run faster with no loss in accuracy.



10. **Amazon Elastic Inference** - allows you to attach GPU-powered inference acceleration to Amazon EC2 and Amazon SageMaker instances to speed up inference for machine learning models.

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11. Amazon Redshift - a fast, fully managed, petabyte-scale Online Analytics Processing (OLAP) data warehouse that makes it simple and cost-effective to store and analyze large amounts of data using machine learning models, allowing for faster and more accurate training and inference.



12. Amazon DynamoDB - an ultra-fast, flexible, NoSQL, key-value database that can be used to store and manage data for machine learning models. It offers automatic scaling, backup and restore, and encryption features, and supports built-in integrations with other AWS services such as Lambda, SageMaker, and Kinesis.



13. Amazon DocumentDB - a fully managed NoSQL document database that supports MongoDB workloads. It can be used to store, manage, and query semi-structured data such as JSON, making it an ideal choice for machine learning applications that require flexible data models.



14. Amazon Kinesis - a streaming data platform that can be used to ingest, process, and analyze real-time data. It can be used to stream data into machine learning models.



15. AWS Lambda - a serverless compute service that can be used to run code in response to events. It can be used to build serverless inference endpoints for machine learning models, providing a scalable and cost-effective solution for serving predictions.



16. Amazon ElastiCache - an in-memory data store and cache service that provides a high-performance and cost-effective solution for storing frequently accessed data. It can be used to speed up data access for machine learning models, reducing the time required for training and inference.



17. Amazon EMR - a fully managed big data platform that uses open-source frameworks such as Hadoop and Spark for processing large amounts of data.



18. Amazon Transcribe - a speech recognition service that transcribes audio and video recordings into text. Can be used to preprocess media files for machine learning models.



19. Amazon Translate - a neural machine translation service that translates text between different languages.



20. Amazon Personalize - a fully managed service that makes it easy to build, train, and deploy personalized machine learning models for real-time user recommendations.