example

nd example

Table 1: Comparison of ML Model Performance Metrics

	Definition
kognition	Amazon Rekognition is a machine learning-based image and video analysis service that uses convolutional neural networks (CNNs) to detect objects, faces, text, and scenes. It supports facial recognition, facial analysis, activity recognition, content moderation, and real-time video processing through APIs, enabling scalable integration into applications for security, marketing, and automation.
ge classification, object etection of text in image, nition, sentiment, and public	
xtract	Amazon Textract is a fully managed machine learning service that uses deep learning models to extract text, forms, and tables from scanned documents. It applies Optical Character Recognition (OCR) in conjunction with Natural Language Processing (NLP) to analyze document layouts, identify key-value pairs, and detect structured data. Textract can process both printed and handwritten text, enabling automated document processing workflows with high accuracy and scalability.
anscribe	Amazon Transcribe is a fully managed automatic speech recognition (ASR) service that converts spoken language into text. It uses deep learning models to transcribe audio from various sources (e.g., calls, meetings) in real-time or batch mode, supporting multiple languages, speaker identification, and custom vocabulary for enhanced accuracy. The service also offers features like punctuation, timestamps, and sentiment analysis for more context-rich transcriptions.
anslate	Amazon Translate is a neural machine translation (NMT) service that leverages advanced deep learning models, including transformer-based architectures, to provide high-quality automatic translation of text. It supports real-time and batch translation, enabling dynamic language pairings and context-aware translation. The service allows customization through user-defined terminology and domain-specific vocabularies, optimizing translation accuracy. Amazon Translate scales horizontally, integrating easily into applications and workflows with APIs for both structured and unstructured text processing.
lly	Amazon Polly is a neural text-to-speech (TTS) service that uses deep learning models to convert text into natural-sounding speech. It offers a wide selection of languages and voices, with features like real-time streaming, SSML support, and customizable speech parameters for integration into applications, devices, and services.
x	Amazon Lex is a fully managed service for building conversational interfaces using natural language understanding (NLU) and automatic speech recognition (ASR). It enables the creation of chatbots and voice applications by processing text and speech inputs to understand user intent. Lex