AWS ML services: Hands-on

Mr. Sunil Kumar

About me

https://www.linkedin.com/in/sunilkumardigi/

- Technical trainer
- Previously worked at GlobalLogic, AKTU (State Technical University), U.P., India
- Tech enthusiast
- Tech community builder
- YouTube: https://www.youtube.com/@sunilkumarOnCloud
- Medium blog: https://medium.com/@suniel.vns
- Topmate: https://topmate.io/sunilkumar7
- Twitter: @techwithsunil
- Toastmasters International member
- Runner

Agenda

- What is ML?
- AWS ML Services
  - Amazon Comprehend
  - Amazon Textract
  - Amazon Translate
  - Amazon Transcribe
  - Amazon Polly
  - Demo

Amazon Comprehend

- Natural language processing (NLP) service that uses machine learning to find insights and relationships in text
- develops insights by recognizing the entities, key phrases, language, sentiments, and other common elements in a document

Amazon comprehend insights

- **Entities** – References to the names of people, places, items, and locations contained in a document.
- **Key phrases** – Phrases that appear in a document.

For example, a document about a basketball game might return the names of the teams, the name of the venue, and the final score.

- **Personally Identifiable Information (PII)** – Personal data that can identify an individual, such as an address, bank account number, or phone number.
- **Language –** The dominant language of a document.
- **Sentiment** – The dominant sentiment of a document, which can be positive, neutral, negative, or mixed.

Amazon Comprehend insights cont..

- **Targeted sentiment** – The sentiments associated with specific entities in a document.
- The sentiment for each entity occurrence can be positive, negative, neutral or mixed.
- **Syntax** – The parts of speech for each word in the document.

Amazon Textract-

- automatically detects and extracts text and data from scanned documents.
- It goes beyond simple optical character recognition (OCR) to also identify the contents of fields in forms and information stored in tables

Amazon Translate

- a text translation service that uses advanced machine learning technologies to provide high-quality translation on demand.

Use cases

- Enable multilingual user experiences in your applications
- Process and manage your company's incoming data
- Enable language-independent processing by integrating Amazon Translate with other AWS services

Amazon Transcribe

- an automatic speech recognition service that uses machine learning models to convert audio to text
- You can transcribe media in real time (streaming) or you can transcribe media files located in an Amazon S3 bucket (batch)

Amazon Polly

- a service that turns text into lifelike speech, enabling you to create applications that talk and build entirely new categories of speech-enabled products.
- a Text-to-Speech (TTS) service that uses advanced deep learning technologies to synthesize speech that sounds like a human voice.

References

- AWS documentation