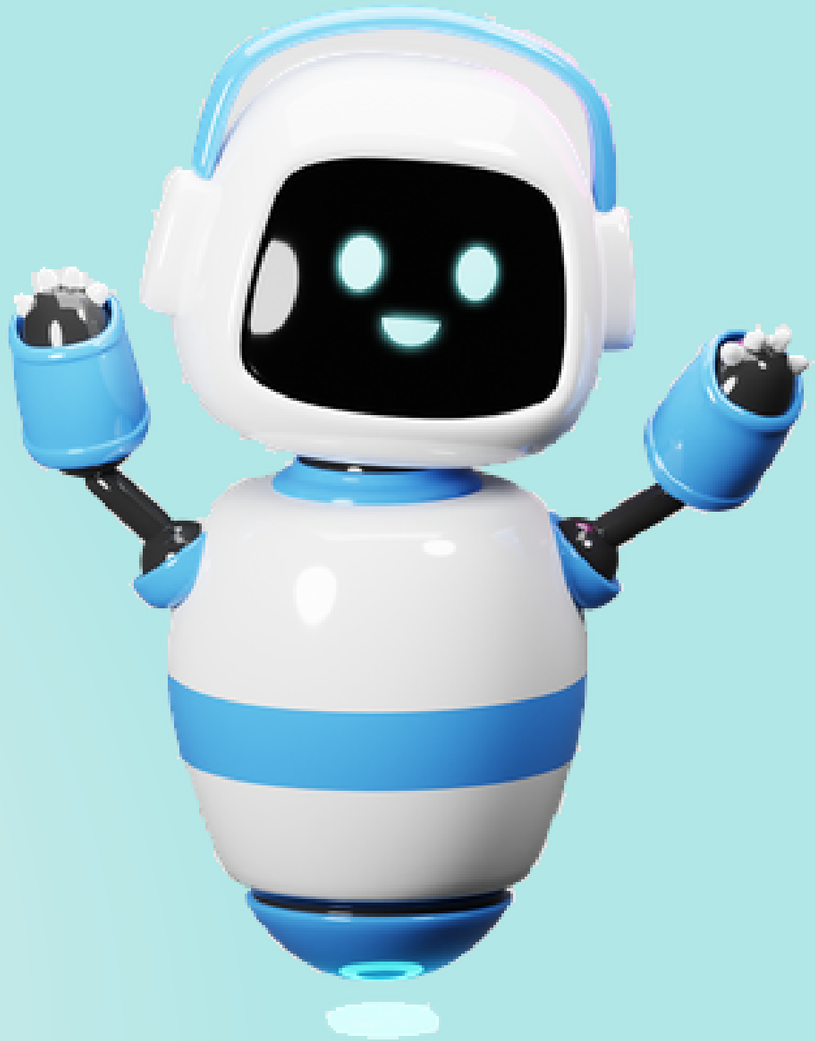
Natural Language Processing Applications



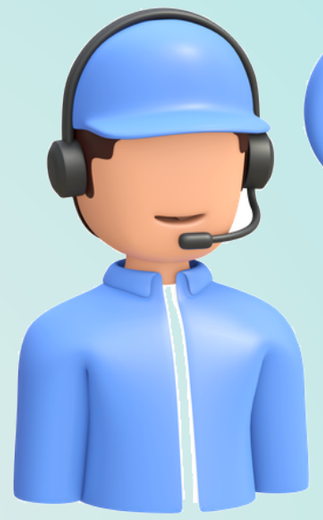
Email filtering

Our daily lives revolve around email, whether it's about work, studies, or anything else. In addition to work-related emails, we get promotional emails and spam from a variety of sources. Here Natural Language Processing comes to work. It identifies and filters incoming emails into “important” or “spam” and places them into their respective designations.

Language translation

There are as many languages in this world as there are cultures, but not everyone understands all these languages. As our world is now a global village owing to the dawn of technology, we need to communicate with other people who speak a language that might be foreign to us. Natural Language processing helps us by translating the language with all its sentiments.

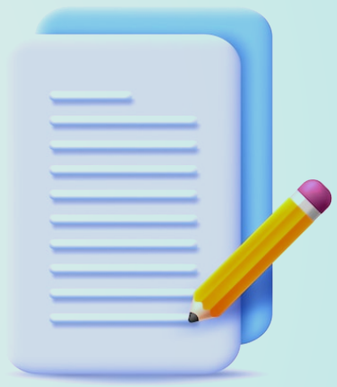
Smart assistants



Today, smart devices are introduced every day, making our lives smarter and smarter by the day. And these advancements aren't just limited to machines. Using Siri, Alexa, and Cortana, we can talk to them just like we talk to normal people, and they even respond back in the same way.

Using Natural Language Processing, the computer is able to understand our language by dividing it into parts of speech and root stems. As a result, they can not only understand the language, but also process its meaning and sentiments, and respond back accordingly.

Document analysis



In addition to its application in document analysis, NLP can also be applied to data sorting. Companies, colleges, and schools have large amounts of data they need to sort out, maintain, and search for regularly. All this could be done using NLP. By categorizing the keywords according to the instructions, it saves us the hassle of searching through hundreds of files for just one person's information. In addition, it helps the user to make informed claims and risk management decisions.

nline searches

It is again Natural Language Processing. It helps search engines understand what is asked of them by comprehending the literal meaning of words and the intent behind writing that word, hence giving us the results, we want.

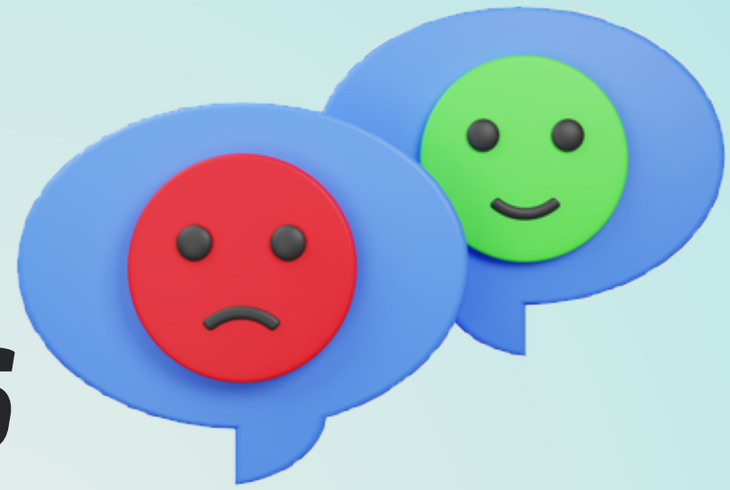
Predictive texT

A similar application to online searches is predictive text. It is something we use whenever we type anything on our smartphones. Whenever we type a few letters on the screen, the keyboard gives us suggestions about what that word might be and when we have written a few words, it starts suggesting what the next word could be. These predictive texts might be a little off in the beginning. All this is done using NLP by making our smartphones intelligent enough to suggest words and learn from our texting habits.

Automatic summarization

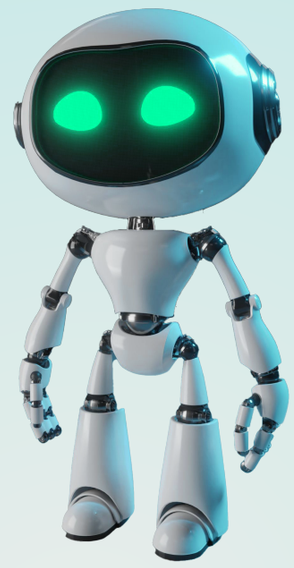
This increase in data has also expanded the scope of data processing, due to the increasing inventions and innovations. Manual data processing takes time and is prone to error, too. NLP can not only summarize the meaning of information, but it can also understand the emotional meaning behind it. This makes the summarization process quick and accurate.

Sentiment analysis



There is emotion in every conversation, every post, and every book, restaurant, and product review. Our ability to interpret emotional sentiments in writings and conversations is as important as our ability to interpret the word-to-word meaning. As a result of natural language processing, computers can also understand the sentiments of a text, along with its literal meaning, as well.

Chatbots



With the increase in technology, everything has been digitalized, from studying to shopping, booking tickets, and customer service. Instead of waiting a long time to get some short and instant answers, the chatbot replies instantly and accurately. NLP gives these chatbots conversational capabilities, which help them respond appropriately to the customer's needs instead of just bare-bones replies.

Social media monitoring

Nowadays, every other person has a social media account where they share their thoughts, likes, dislikes, experiences, etc., which tells a lot about the individuals. We do not only find information about individuals but also about the products and services. In this case, NLP can be used by the relevant companies to gather information about their products and services in order to improve or amend them. This enables the computer system to understand unstructured social media data, analyze it, and produce valuable results.