

Overview Of NLP

Natural Language Processing is the of field on computer science where we try get computers to process human language. The relationship between artificial intelligence and natural language processing is that natural language processing is a subset of artificial intelligence. Natural language understanding is different to natural language generation in that for understand the computer just needs to understand what the user said and do what the user said like ok google. Generation is kind of siri because it first understands what the user says and generates a response. Some modern applications of NLP are Google Translate, Google Search and Siri.

One of the three approaches to NLP is a rules based approach. An application of this would be like using spell check it looks for sentence structure to figure out what the right words are. The reason this doesn't scale is because human languages are very complex so it is hard to understand the meaning of it using a rule based approach.

Another approach to NLP is a probabilistic and statistical approach. This approach uses word frequencies to understand what is being said and to generate a response. The problem with this approach is that you need a lot of data and processing power. This approach uses a lot of machine learning models like bayesian learning.

The last approach to NLP is using deep learning. Deep learning is the newest approach and it has given us a lot of improved results in language translation, generation and understanding. This approach uses neural networks the biggest problem is this one is the most costly. It takes a lot of data even more than a probabilistic approach.

My interest in natural language processing would be learn on how we can utilize the frameworks within python to do natural language processing. In machine learning I learned some of these algorithms and did some of them scratch. So I want to get more experience using the algorithms to try to do some natural language understand and maybe even generation.