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Overview of NLP

Natural Language Processing is the act of letting computers translate human language back to the users that might involve many different techniques like machine learning, linguistics, etc.

NLP just translates words back to the users while AI can mimic cognitive comprehension. The user can say what they want to say either acting monotone or emotional and AI will carry on a conversation based on the word choices.

Natural language understanding uses syntax and semantics to determine what the words mean. Natural language execution enables computers to write the words.

Email filters, ATS (resume scanner), text summarization, grammar check

Rules based is one of the oldest NLP approaches and it is used to follow the rules of categorizing the language it's analyzing. An Eliza used regular expressions to echo talking points back to the user. The problem was the approach wasn't always accurate with what the user is trying to say. Rules-based led to other developers to create better alternatives.

Statistical and probability starts digressing in the 1990s and the approach uses mathematics to count words which led to language models being part of machine translation systems which made predicting words and making sentences much more accurate. The company SentiSum reads and re-reads entire conversations, making sure it picks up on topics and their sentiment mentioned throughout the entire exchange.

Deep learning is the modern approach to current NLP applications. It is built upon neural networks gathering petabytes of data creating new solutions to understanding the best dialogue every day. A good example of this is Google Translate. Even in different languages the application is good at translating the word that is needed to be converted to a different language so someone might want to learn new words or phrases.

NLP can help others and that's what makes me super interested. All the different applications surrounding NLP makes me want to learn more and possibly help others to reach a goal. Also, learning python is a huge advantage in the tech market for jobs in the future.