

## 16.5.4

## NLP Use Cases

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**You've** learned a lot of the building blocks required to understand NLP use cases, so keep going. Learning these use cases will really help you and Jennifer become successful.

Within NLP, there are a few use cases that are important to creating programs of value. Each of these builds on what we have previously covered. You can build on each of these to create more advanced programs, but we won't worry about that right now.

## NLP Analyses

There are three types of NLP analyses:

- **Syntactic analysis** is essentially checking the dictionary definition of each element of a sentence or document. In this type of analysis, we don't care about the words that come before or after the word in question—we just care about the given word.
- **Sentiment analysis** pertains to what the text means. Is it positive, negative, or neutral? You can come up with a score of how positive or negative the text is using NLP.
- **Semantic analysis** entails extracting the meaning of the text. You want to analyze the meaning of each word, and then relate that to the meaning of the text as a whole.

## Named-Entity Recognition

In NLP, **named-entity recognition** (NER) is the concept of taking a document and finding all of the important terms therein. By "important," we mean names of places and people, government organizations, and so forth. Many names are already recognized, but you can always add more names to the list of recognized entities, as necessary.

You train a model on data labeled with important entities so that the model can better distinguish which entities should be labeled in a different dataset.

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