Part-of-Speech (POS) Tagging, in the context of Natural Language Processing (NLP), is the process of marking up a word in a text (corpus) as corresponding to a particular part of speech, based on both its definition and its context—i.e., its relationship with adjacent and related words in a phrase, sentence, or paragraph. A part of speech is a category of words with similar grammatical properties. Common parts of speech include nouns, verbs, adjectives, adverbs, pronouns, prepositions, conjunctions, and interjections.

POS tagging is a fundamental step in the preprocessing phase of many NLP applications because understanding the role of each word in a sentence is critical for understanding its meaning. Applications that benefit from POS tagging include:

- **Syntax parsing**: Determining the structure of a sentence can be facilitated by knowing the parts of speech of the words.

- **Named entity recognition (NER)**: Identifying names, places, and organizations often requires understanding the role of each word in a sentence.

- **Sentiment analysis**: Adjectives, for example, can be crucial indicators of sentiment.

- **Question answering and machine translation**: These applications require a deep understanding of sentence structure, which is enhanced by POS tagging.

There are different approaches to POS tagging, ranging from rule-based methods, which use hand-written rules to decide the part of speech based on the word itself and its context, to statistical methods, like Hidden Markov Models (HMMs), and more recently, machine learning-based approaches, including deep learning models, which can learn from large corpora of text automatically annotated with parts of speech.

The output of a POS tagger is a sequence of tags, one for each word in the input text, indicating each word's part of speech according to a predefined set of tags (tagset). For example, in the English Penn Treebank tagset, "NN" signifies a singular noun, "VB" signifies a base form verb, and "JJ" signifies an adjective.

POS tagging is thus a critical component of NLP, enabling machines to understand language more completely by analyzing the grammatical structure of texts.