

EXPERIMENT 8 :: EXPLAIN ABOUT POS TAGGING

INTRODUCTION ::

Part-of-speech (POS) tagging is a process in natural language processing (NLP) where each word in a text is labeled with its corresponding part of speech. This can include nouns, verbs, adjectives, and other grammatical categories.

POS tagging is useful for a variety of NLP tasks, such as information extraction, named entity recognition, and machine translation. It can also be used to identify the grammatical structure of a sentence and to disambiguate words that have multiple meanings.

Parts of Speech Tagging

```
import nltk

from nltk.tokenize import word_tokenize

# Download NLTK tokenizer and POS tagging models
nltk.download('punkt')
nltk.download('averaged_perceptron_tagger')

def pos_tagging(text):
    # Tokenize the text into words
    words = word_tokenize(text)

    # Perform POS tagging
    tagged_words = nltk.pos_tag(words)

    return tagged_words

# Example text
```

```
text = "NLTK is a leading platform for building Python programs to work with human language data."
```

```
# Perform POS tagging
```

```
tagged_text = pos_tagging(text)
```

```
# Print POS tagged text
```

```
print(tagged_text)
```