

Lemmatizer

```
import nltk
```

```
from nltk.stem import WordNetLemmatizer
```

```
# wordnetlemmatizer library is the responsible for doing the lemmatization function
```

```
from nltk.corpus import stopwords
```

```
paragraph = '''AI, machine learning and deep learning are common terms in enterprise
```

```
    IT and sometimes used interchangeably, especially by companies in their  
marketing materials.
```

```
    But there are distinctions. The term AI, coined in the 1950s, refers to the  
simulation of human
```

```
    intelligence by machines. It covers an ever-changing set of capabilities as new  
technologies
```

```
    are developed. Technologies that come under the umbrella of AI include machine  
learning and
```

```
    deep learning. Machine learning enables software applications to become more  
accurate at
```

```
    predicting outcomes without being explicitly programmed to do so. Machine  
learning algorithms
```

```
    use historical data as input to predict new output values. This approach became  
vastly more
```

```
    effective with the rise of large data sets to train on. Deep learning, a subset of  
machine
```

```
    learning, is based on our understanding of how the brain is structured. Deep  
learning's
```

```
    use of artificial neural networks structure is the underpinning of recent advances  
in AI,
```

```
    including self-driving cars and ChatGPT.'''
```

```
sentences = nltk.sent_tokenize(paragraph)
```

```
lemmatizer = WordNetLemmatizer()
```

```
# Lemmatization
```

```
for i in range(len(sentences)):
```

```
    words = nltk.word_tokenize(sentences[i])
```

```
    words = [lemmatizer.lemmatize(word) for word in words if word not in  
set(stopwords.words('english'))]
```

```
    sentences[i] = ' '.join(words)
```