

## STOP WORD REMOVAL

import nltk

nltk.download("stopwords")

from nltk.corpus import stopwords

Sentence = nltk.sent\_tokenize(Paragraph)

for i in range(len(Sentence)):

words = nltk.word\_tokenize(Sentence[i])

newwords = [word for word in words if word not in stopwords.words('english')]

Sentence[i] = ' '.join(newwords)

\* This will be used mainly in the text classification problems

## POS (Parts of Speech Tagging)

→ nouns, Adjective, Verbs, Adverbs  
↳ Proper nouns

import nltk;

words = nltk.word\_tokenize(Paragraph)

tagged\_words = nltk.pos\_tag(words)

→ Returns a list

↳ Each word will a tuple

[('Thank', 'nnp')]

word\_tags = [ ]

for tw in tagged\_words:

word\_tags.append(tw[0] + "\_" + tw[1])

tagged\_paragraph = ' '.join(word\_tags)

CC	Coordinating, Conjunction (and, or, but)	
CD	Cardinal numbers (five, three, 13.1.)	
DT	Determiner (The, a, these)	
Ex	Existential there (There were six boys)	
FW	Foreign word (mains)	
IN	Preposition or subordinating, Conjunction (of, on, before unless)	
JJ	Adjective (nice, easy)	
JJR	Adjective, Comparative. (nicer, easier)	
JJS	Adjective, superlative (nicest, easiest)	
LS	List item marker	
MD	Modal (may, should)	
NN	noun, singular or mass (tiger, chair, laughter)	
NNS	Noun, plural (tigers, chairs, insects)	
NNP	Proper noun, singular (Germany, God, Alice)	
NNPS	Proper noun, plural (we met two <u>christmases</u> ago)	
PDT	Predeterminer (both his children)	
POS	Possessive ending ('s)	
PRP	Personal, pronoun (me, you, it)	
PRP\$	Possessive pronoun (me, your, own)	
RB	Adverb (extremely, loudly, hard)	VBn- Verb, past participle
RBR	Adverb, Comparative (better)	VBp- Verb, non-3rd person singular present
RBS	Adverb, superlative (best)	
RP	adverb, article (about, off, up)	VBZ- Verb, 3rd person, singular present
SYM	Symbol (-1.)	
TO	infinitive to (what to do?)	WD- wh-determiner
UH	Interjection (oh, oops, gosh)	WP wh-pronoun
VB	Verb, base form (think)	WP\$ Possessive wh-pronoun
VBD	Verb, past tense	WRB wh-adverb
VBG	Verb, present participle	