

NATURAL LANGUAGE PROCESSING

INTERMEDIATE

CSI, VIT PUNE

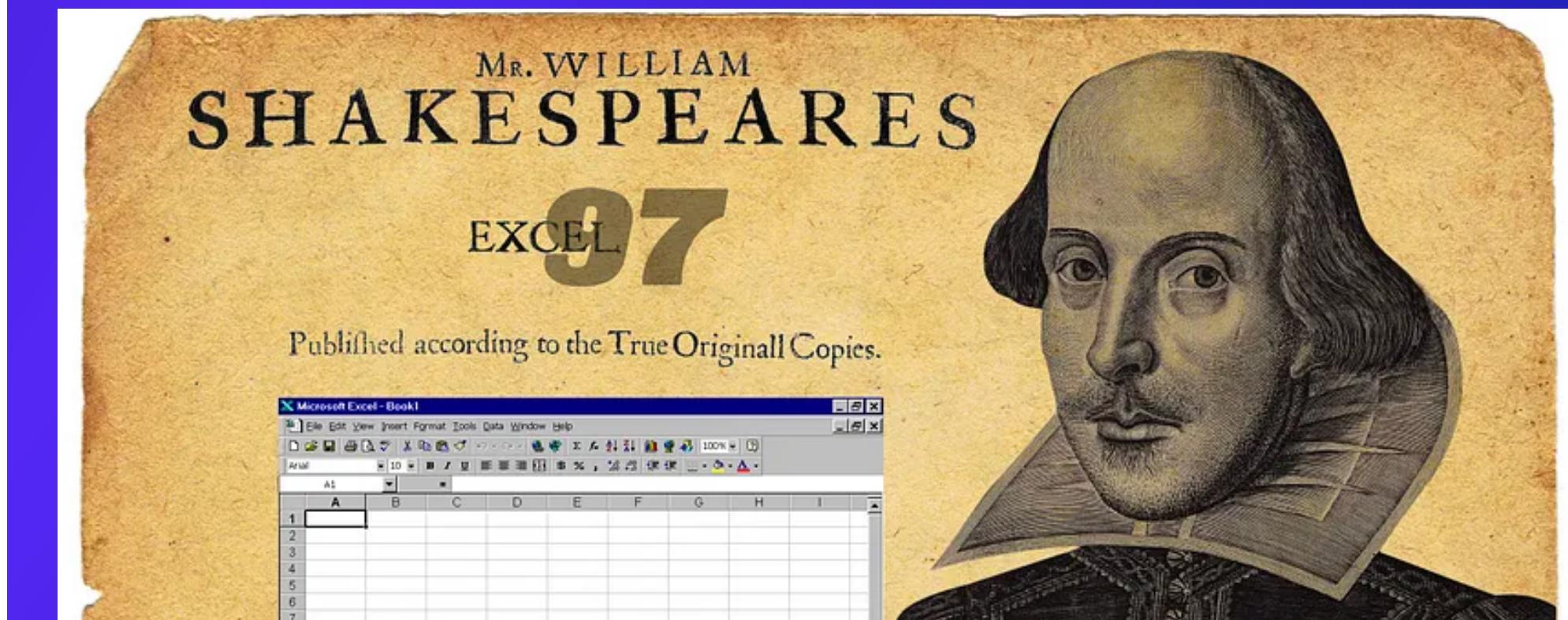


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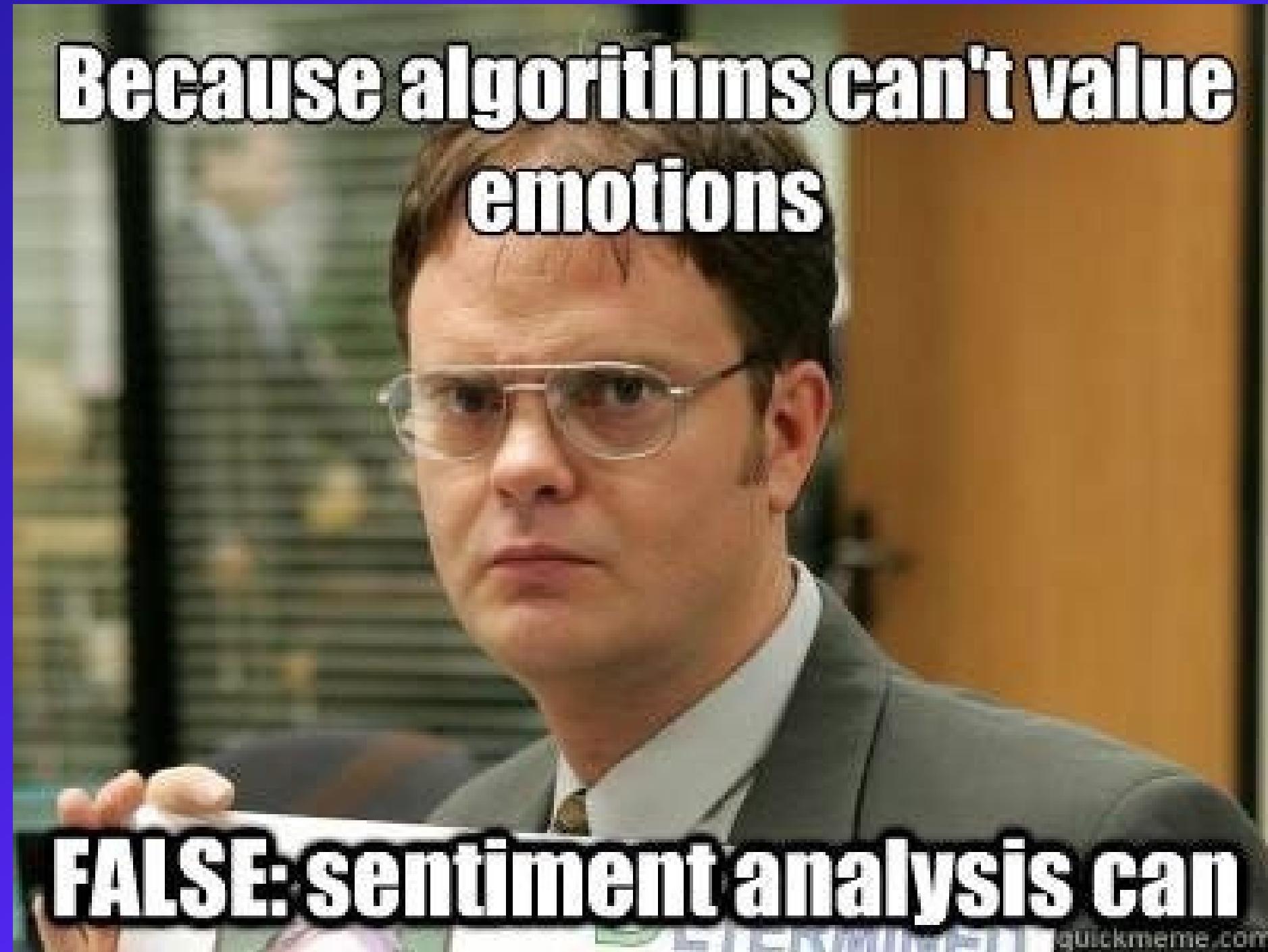
IMPORTANCE & APPLICATIONS



Top 11 NLP Techniques



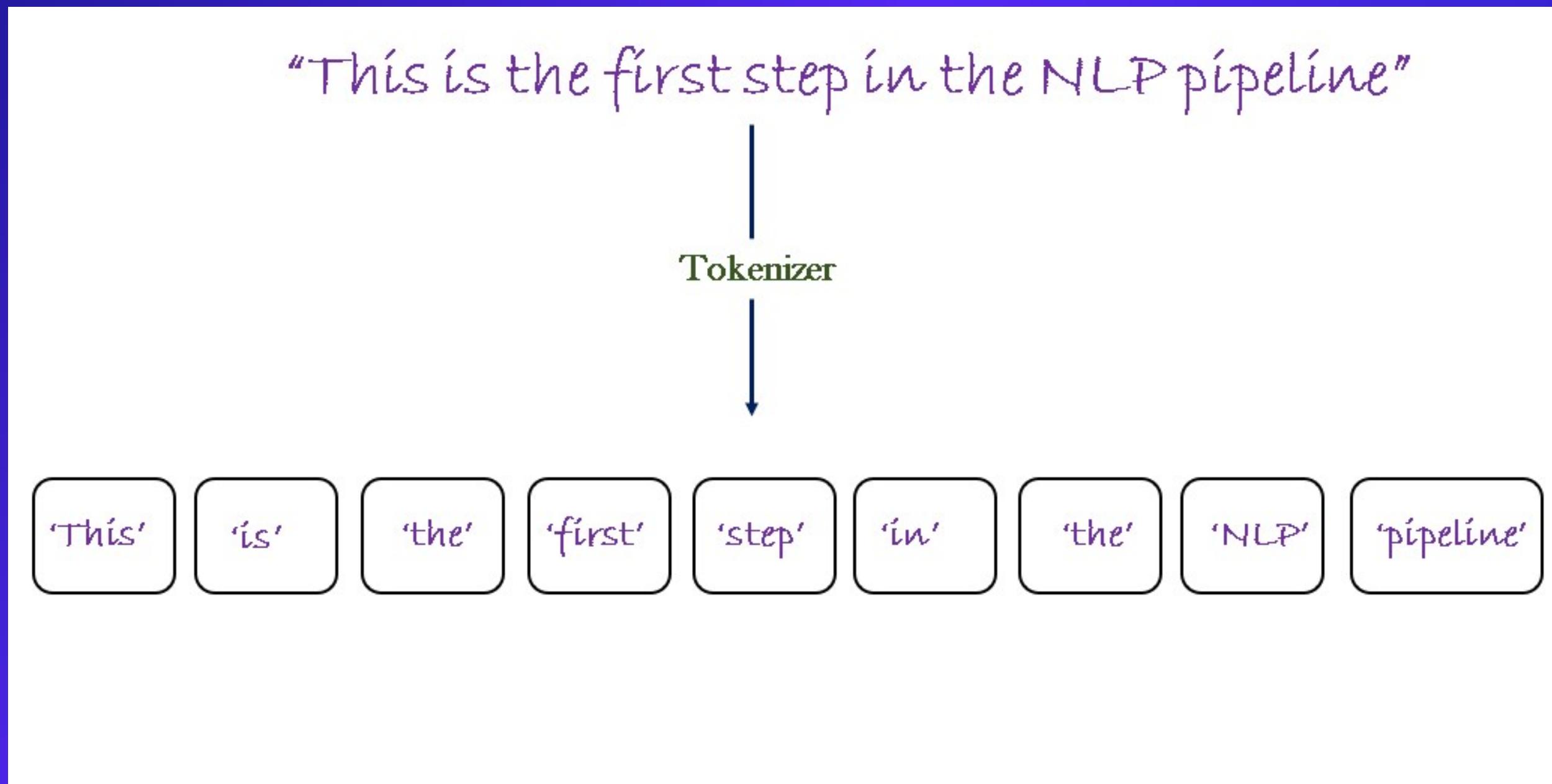
SENTIMENT ANALYSIS



LET'S
START
BUILDING



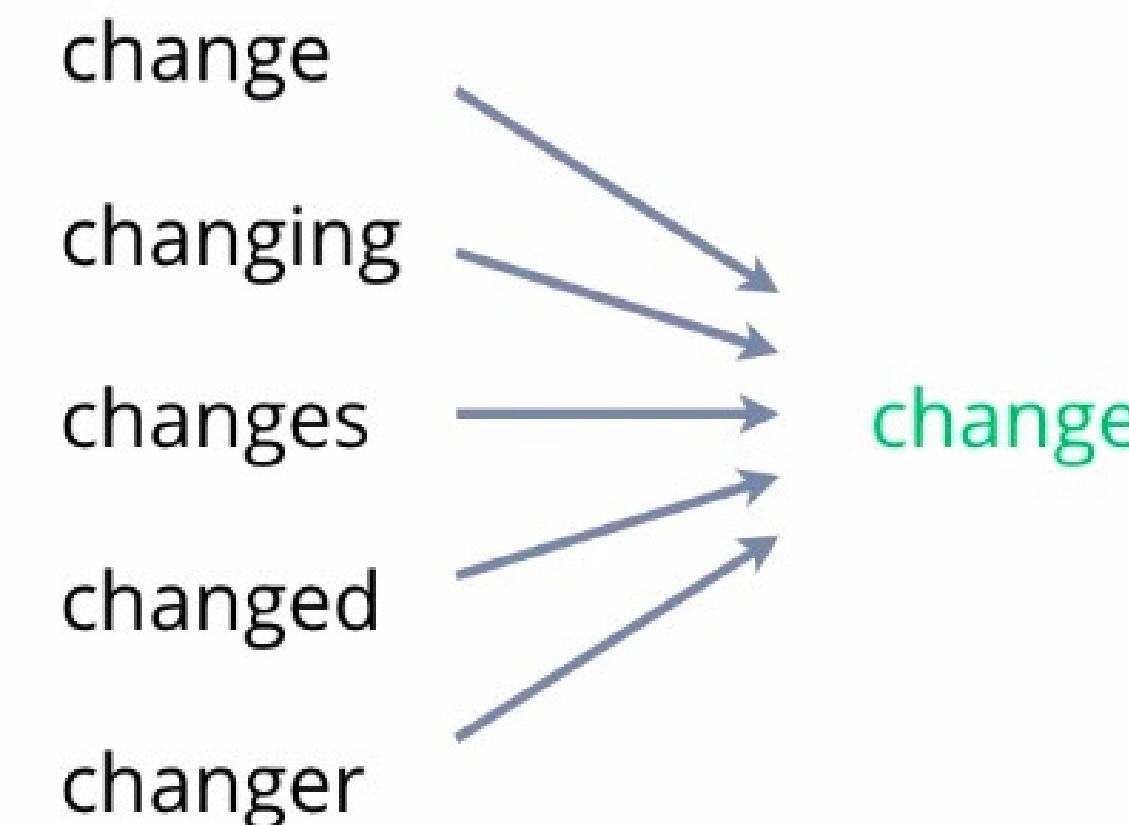
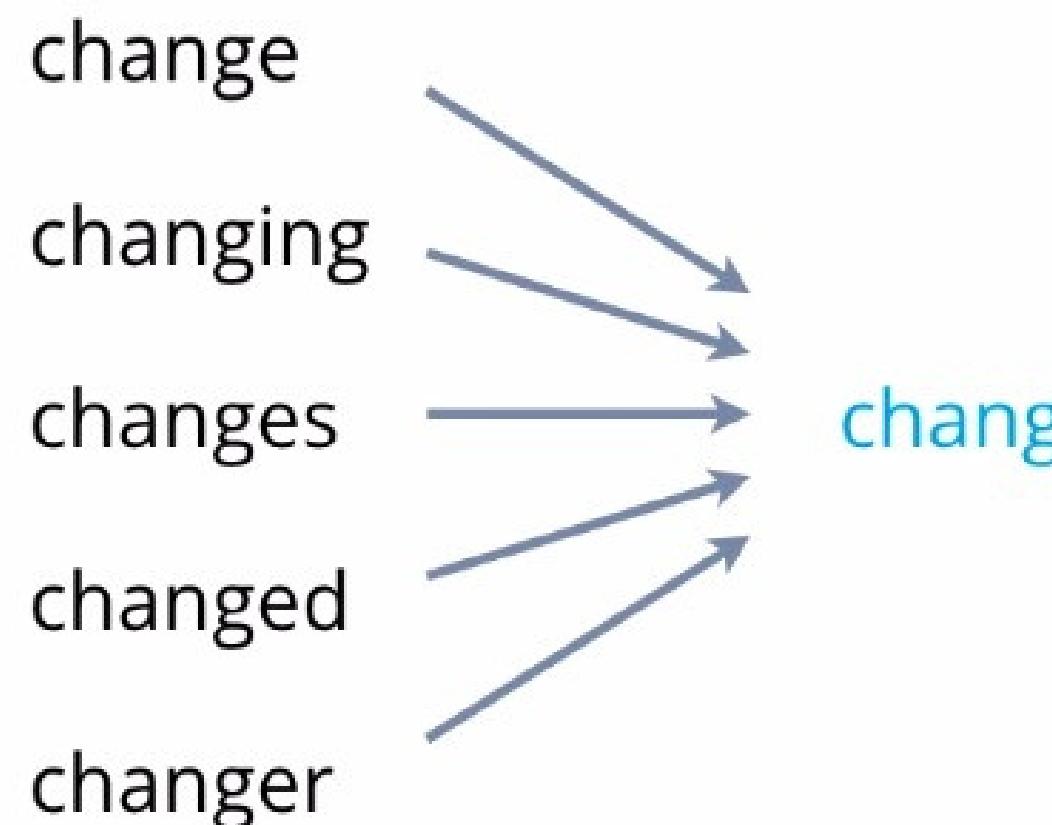
TOKENIZATION



STOP WORDS



Stemming vs Lemmatization



PARTS OF SPEECH TAGGING

Visualizing VERB Part-of-Speech NOUN Tags NOUN
with ADP NLTK NOUN and CONJ Spacy NOUN

Part of speech tags¹

CC - Coordinating conjunction

CD - Cardinal number

DT - Determiner

EX - Existential there

FW - Foreign word

IN - Preposition or subordinating conjunction

JJ - Adjective

JJR - Adjective, comparative

JJS - Adjective, superlative

NN - Noun, singular or mass

NNS - Noun, plural

NNP - Proper noun, singular

NNPS - Proper noun, plural

PDT – Predeterminer

NP - Noun Phrase.

PP - Prepositional Phrase

VP - Verb Phrase.

PRP - Personal pronoun

RB - Adverb

RBR - Adverb, comparative

RBS - Adverb, superlative

RP - Particle

SYM - Symbol

TO - to

UH - Interjection

VB - Verb, base form

VBD - Verb, past tense

VBG - Verb, gerund or present participle

VBN - Verb, past participle

VBP - Verb, non-3rd person singular present

VBZ - Verb, 3rd person singular present

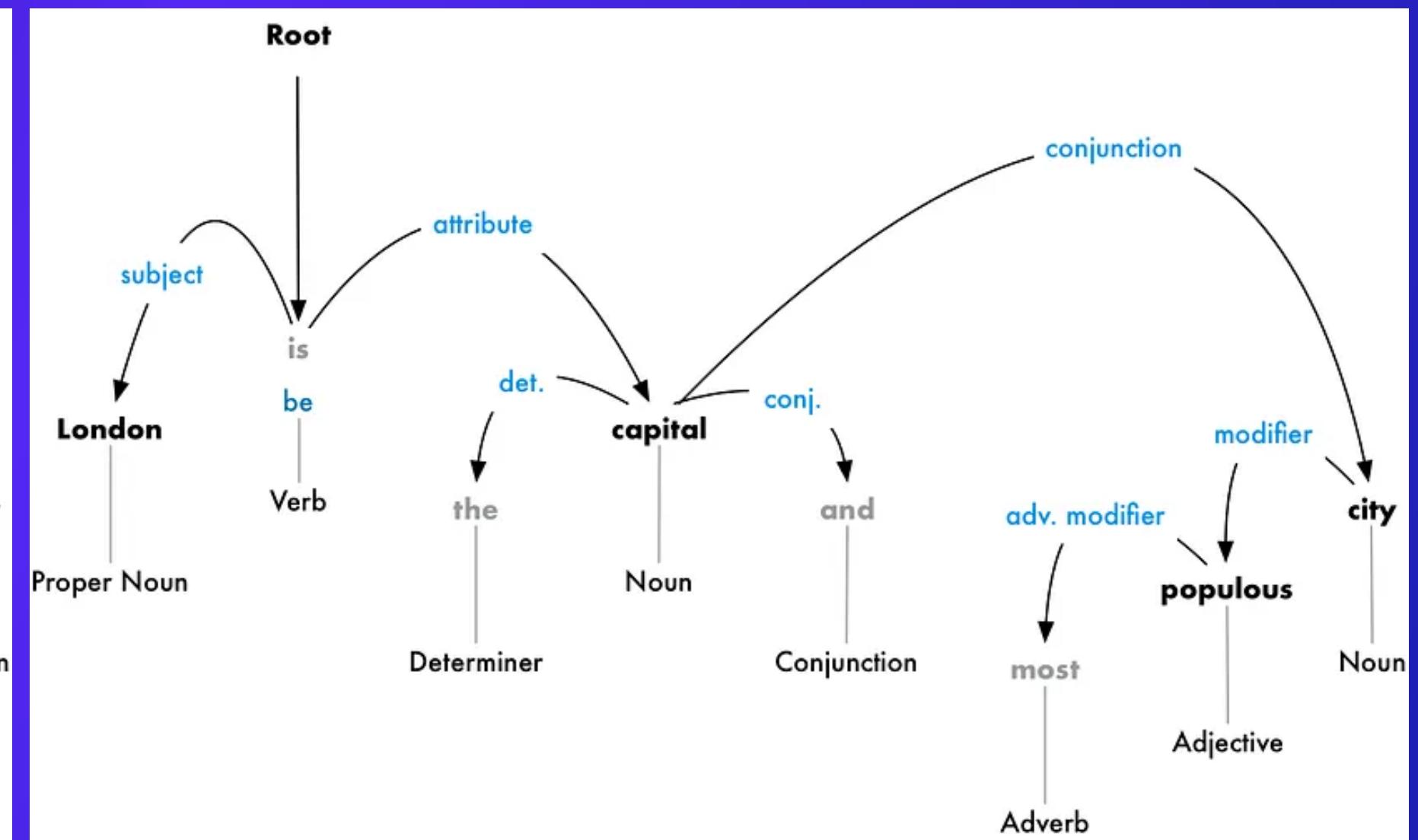
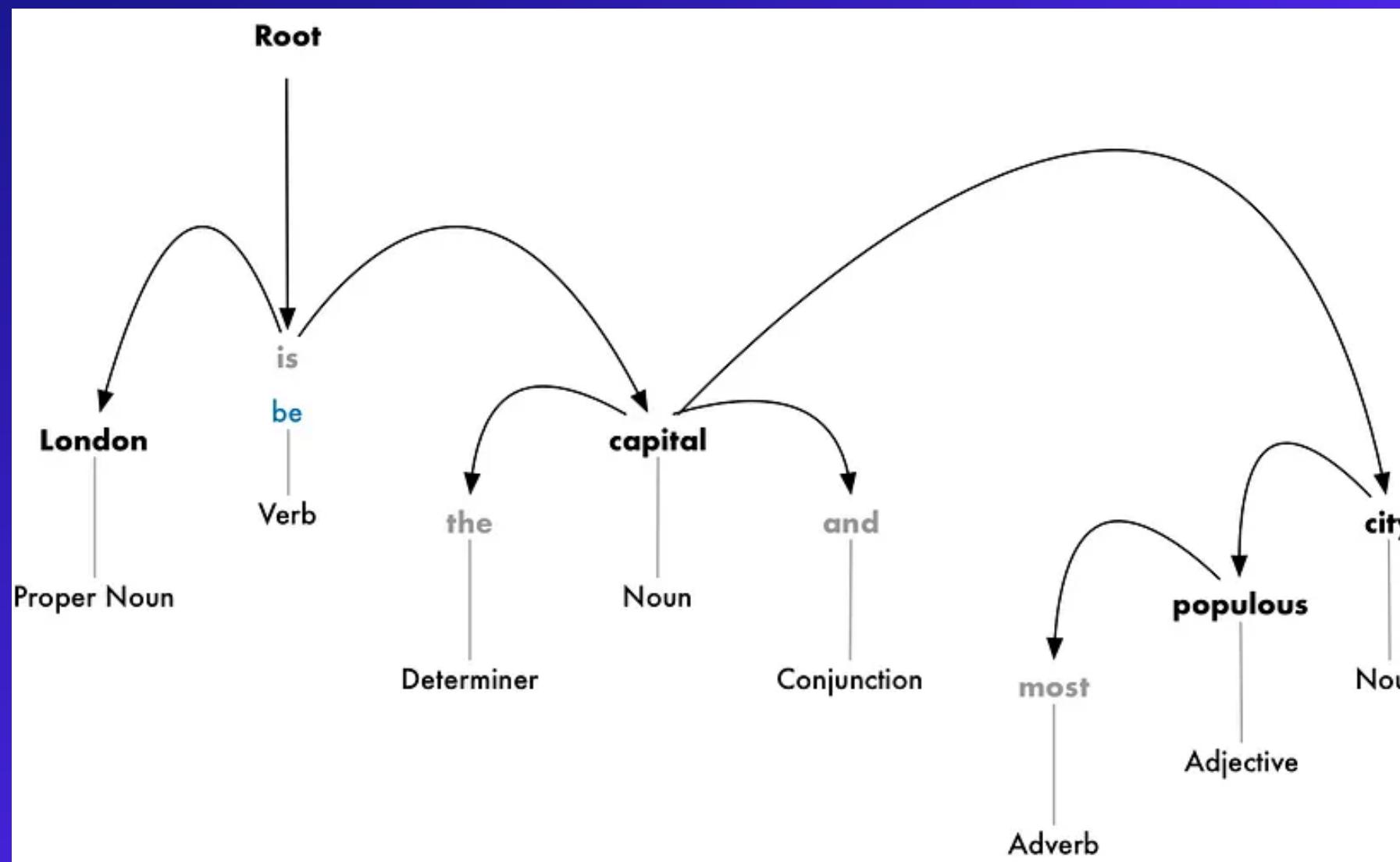
WDT - Wh-determiner

WP - Wh-pronoun

WRB - Wh-adverb

¹ <http://bulba.sdsu.edu/jeanette/thesis/PennTags.html>

DEPENDENCY PARSING & PHRASES



NAMED ENTITY RECOGNITION

Person p Loc l Org o Event e Date d Other z

Barack Hussein Obama II (born August 4, 1961) is an American attorney and politician who served as the 44th President of the United States from January 20, 2009, to January 20, 2017. A member of the Democratic Party, he was the first African American to serve as president. He was previously a United States Senator from Illinois and a member of the Illinois State Senate.



THANK YOU!

