

	Title	Paper	Year	Type
1	From Organizational Guidelines to Business Process Models: Exploratory Case for an Ontology-Based Methodology	[18]	2017	C
2	A Concept for Generating Business Process Models from Natural Language Description	[19]	2018	C
3	Extracting Declarative Process Models from Natural Language	[3]	2019	C
4	Extracting Annotations from Textual Descriptions of Processes	[33]	2020	C
5	Say It in Your Own Words: Defining Declarative Process Models Using Speech Recognition	[1]	2020	C
6	From text to visual BPMN process models: design and evaluation	[21]	2020	C
7	Data-Driven Annotation of Textual Process Descriptions Based on Formal Meaning Representations	[4]	2021	C
8	Extracting Business Process Entities and Relations from Text Using Pre-trained Language Models and In-Context Learning	[10]	2022	C
9	Generating BPMN diagram from textual requirements	[36]	2022	J
10	Live process modeling with the BPMN Sketch Miner	[22]	2022	J
11	A Machine Translation Like Approach to Generate Business Process Model from Textual Description	[37]	2023	J
12	Process Modeling with Large Language Models	[27]	2024	C
13	ProMoAI: Process Modeling with Generative AI	[28]	2024	C
14	Generative AI for Business Model Generation (GAI4BM): from Textual Description to Business Process Model	[14]	2024	C
15	Process Knowledge Extraction and Knowledge Graph Construction Through Prompting: A Quantitative Analysis	[11]	2024	C
16	Automated Generation of BPMN Processes from Textual Requirements	[32]	2024	C
17	Large Language Models for Democratizing Business Process Modeling: BPMN Model Generation and Style Guide Adherence	[41]	2025	C

Table 4: Overview of the relevant publications in this literature review with title, paper, year, and publication type (C states for Conference and J for Journal).

NLP tool	Description	Publications
Chen and Manning	Neural network-based dependency parser	[37]
FreeLing ¹⁸	Library for many NLP tools	[33]
GloVe	Pre-trained word embeddings capturing word co-occurrence for semantic similarity	[4]
Penn TreeBank	Annotated corpus: POS tagging, syntactic parsing	[18]
spaCy	Library for tokenization, Part-of-Speech (POS) tagging, Named Entity Recognition (NER), dependency parsing	[19][4]
Stanford CoreNLP	Full NLP suite for tokenization, POS tagging, parsing, NER, sentiment analysis	[18][37]
Stanford Lemmatizer	Converts words to their base form (lemma)	[37]
Stanford Parser	Generates syntactic trees	[18][3]
Stanford POS tagging	tags each word in a sentence with its part of speech (e.g. Verb, Noun)	[37]
Stanford Relations	extracts semantic relations between words	[3]
Stanford Tregex	pattern-matching tool for syntactic parse trees	[33]
Stanza	Library that supports tokenization, POS tagging, parsing, NER	[36]
UDPipe	Tool for tokenization, POS tagging, dependency parsing, multiple languages	[4]
Word2Vec	Word embeddings leveraging context for semantic similarity	[4]
WordNet	Lexical database for english, including synonyms, antonyms, word relations	[19][3][33][37]

Table 5: NLP tools leveraged in the publications