

Semantic Textual Similarity on Contracts: Exploring Multiple Negative Ranking Losses for Sentence Transformers

Authors : Yogendra Sisodia

Abstract : Researchers are becoming more interested in extracting useful information from legal documents thanks to the development of large-scale language models in natural language processing (NLP), and deep learning has accelerated the creation of powerful text mining models. Legal fields like contracts benefit greatly from semantic text search since it makes it quick and easy to find related clauses. After collecting sentence embeddings, it is relatively simple to locate sentences with a comparable meaning throughout the entire legal corpus. The author of this research investigated two pre-trained language models for this task: MiniLM and Roberta, and further fine-tuned them on Legal Contracts. The author used Multiple Negative Ranking Loss for the creation of sentence transformers. The fine-tuned language models and sentence transformers showed promising results.

Keywords : legal contracts, multiple negative ranking loss, natural language inference, sentence transformers, semantic textual similarity

Conference Title : ICAIL 2022 : International Conference on Artificial Intelligence for Law

Conference Location : Cairo, Egypt

Conference Dates : December 15-16, 2022