NEXT SENTENCE PREDICTION

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Overview

Introduction

- Next Sentence Prediction model uses pre-trained language models such as LSTM (Long Short-Term Memory) and BERT (Bidirectional Encoder Representations from Transformers) to generate the next possible sentence.

- This helps user to frame sentences by following letter to letter prediction means.

Literature Survey

S. No	Title of the paper	Authors and Journal Details	Description
1	NSP-BERT: A Prompt-based Few-Shot Learner Through an Original Pre-training Task	Yi Sun, Yu Zheng, Chao Hao, Hangping Qiu - 2022	The papers describes that NSP can also be an used for zero-shot or few-shot learner same as MLM.
2	What comes next? Extractive summarization by next-sentence prediction	Jingyun Liu, Jackie C.K.Cheung, Annie Louis - 2019	The papers talks about NEXTSUM model to predicts the next summary sentence that is higly informative and with limited length.

S. No	Title of the paper	Authors and Journal Details	Description
3.	Next Sentence Prediction helps Implicit Discourse Relation Classification within and across Domains	Wei Shi and Vera Demberg - 2019	The paper talks about using BERT model on PDTB(Penn Discourse Tree Bank) corpus to show its ability in encoding semantic relationship between sentences.
4	A Comparison of LSTM and BERT for Small Corpus	Aysu Ezen-Can - 2020	This paper discusses the comparison of the performance of simple bidirectional LSTM model with a pre-trained BERT model for a small dataset.

Problem Statement

- Design and implement a model that can effectively predict the next relevant sentence for a given input sentence by level wise word prediction.

Proposed Method

- The main aim of our project is to predict the sentences as quick as possible using BERT and LSTM models by comparing their accuracy using SWAG (Situations With Adversarial Generations) dataset.

References

- "SENTENCE PREDICTION USING NLP TECHNIQUES "by Sakthi Subramaniyam.K, Srivatsan.S, Vignesh Muthu.K, Vishnu.M(ISSN: 2 2455-2143 Vol. 7 Issue 04, August-2022).

- "NSP-BERT: A Prompt-based Few-Shot Learner Through an Original Pre-training Task —— Next Sentence Prediction" by Yi Sun, Yu Zheng, Chao Hao, Hangping Qiuy (arXiv:2109.03564v2,18 October 2022)

- "What comes next? Extractive summarization by next-sentence prediction" by Jingyun Liu, Jackie C.K.Cheung, Annie Louis (arXiv:1901.03859v1,12 January 2019)

- "Next Sentence Prediction helps Implicit Discourse Relation Classification within and across Domains" by Wei Shi and Vera Demberg;(arXiv:1901.03859v1,12 January 2019)

- "A Comparison of LSTM and BERT for Small Corpus" by Aysu Ezen-Can (arXiv:2009.05 September 2020)

Thank you