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BART Model for Text Summarization : An Analytical Survey and Review

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Abstract: In our current day, where vast amounts of information are available on the internet, it is critical to design a better approach for gathering information fast and effectively. Manually collecting the summary of enormous volumes is quite challenging for humans. On the internet, there is a wealth of written knowledge. As a result, identifying relevant papers among the enormous number of documents accessible and extracting important information from them is difficult. Automatic text summarization is crucial for addressing the issues raised above. The practise of determining the most significant and meaningful parts of a text is called summary, condensing the information in a document or collection of linked documents a condensed version that retains the overall message. We used BART model for text Summarization. We offer BART, a denoising auto encoder for pretraining step-to-step models. BART is learned by first corrupting text with any noise function and then building a model to recover the original content. It employs a typical transformer-based neural machine translation architecture that, despite its simplicity, generalises BERT, GPT, and a range of other more modern pretraining approaches. We put a number of noise reduction strategies to the test, and found that rearranging the steps of the initial phrases and using a new in-filling strategy in which text A single mask token replaces the spans yielded the greatest results. BART is particularly excellent for text creation, but it also excels at comprehension. With just target language pretraining, BART yields a 1.1 For machine translation, BLEU improves over a back-translation system, matching RoBERTa's performance on GLUE and SQuAD. We also offer ablation experiments that simulate various pretraining tactics inside the BART framework to further understand which aspects have the biggest impact on end-task performance.

Keywords: BART [Bidirectional and Auto-Regressive Transformers], BART [Bidirectional Encoder Representations from Transformers], GPT [Generative Pre-trained Transformer].

REFERENCES:

- [1]. Paul Gigioli, Nikhita Sagar, Anand Rao and Joseph Voyles, "Domain-Aware Abstractive Text Summarization for Medical Documents", published during [2018] IEEE BIBM.
- [2]. L. Ermakova, J.V. Cossu and J. Mothe, "A survey on evaluation of summarization methods", Information Processing & Management[2019].
- [3]. Z.Wu, L. Lei, G. Li, H. Huang, C. Zheng, E. Chen, et al., "A topic modeling based approach to novel document automatic summarization", Expert Systems with Applications [2017].
- [4]. Mehdi Allahyari and KrysKochut. [2015]. Automatic topic labeling using ontology-based topic models. In Machine Learning and Applications(ICMLA)[2015] IEEE 14th International Conference.
- [5]. Mehdi Allahyari and KrysKochut. [2016]. Discovering Coherent Topics with Entity Topic Models. In Web Intelligence (WI), [2016] IEEE/WIC/ACM International Conference.
- [6]. Shivangi Modi and Rachana Oza, "Review on Abstractive Text Summarization Techniques (ATST) for single and multi documents, International Conference on Computing Power and Communication Technologies, [2018].