

cases	doc_1		doc_2		decision	id
	authors	<ul style="list-style-type: none">Nils ReimersIryna Gurevych	authors	<ul style="list-style-type: none">Iryna GurevychNils Reimers	DUPLICATES	348
	title	Sentence-BERT: Sentence Embeddings using Siamese BERT-Networks	title	Sentence-BERT: Sentence Embeddings using Siamese BERT-Networks		
	publication_date	2019-08-27 08:50:17+00:00	publication_date	2019-08-27 00:00:00		
	source	SupportedSources.ARXIV	source	SupportedSources.PAPERS_WITH_CODE		
	journal	None	journal			
	volume		volume			
	doi		doi			
	urls	<ul style="list-style-type: none">http://arxiv.org/pdf/1908.10084v1http://arxiv.org/abs/1908.10084v1http://arxiv.org/pdf/1908.10084v1	urls	<ul style="list-style-type: none">https://arxiv.org/pdf/1908.10084v1.pdfhttps://github.com/UKPLab/sentence-transformershttps://aclanthology.org/D19-1410.pdf		
	id	id8807491851704072101	id	id8510547945187807396		
	abstract	BERT (Devlin et al., 2018) and RoBERTa (Liu et al., 2019) has set a new state-of-the-art performance on sentence-pair regression tasks like semantic textual similarity (STS). However, it requires that both sentences are fed into the network, which causes a massive computational overhead: Finding the most similar pair in a collection of 10,000 sentences requires about 50 million inference computations (~65 hours) with BERT. The construction of BERT makes it unsuitable for semantic similarity search as well as for unsupervised tasks like clustering. In this publication, we present Sentence-BERT (SBERT), a modification of the pretrained BERT network that use siamese and triplet network structures to derive semantically meaningful sentence embeddings that can be compared using cosine-similarity. This reduces the effort for finding the most similar pair from 65 hours with BERT / RoBERTa to about 5 seconds with SBERT, while maintaining the accuracy from BERT. We evaluate SBERT and SROBERTa on common STS tasks and transfer learning tasks, where it outperforms other state-of-the-art sentence embeddings methods.	abstract	BERT (Devlin et al., 2018) and RoBERTa (Liu et al., 2019) has set a new state-of-the-art performance on sentence-pair regression tasks like semantic textual similarity (STS). However, it requires that both sentences are fed into the network, which causes a massive computational overhead: Finding the most similar pair in a collection of 10,000 sentences requires about 50 million inference computations (~65 hours) with BERT. The construction of BERT makes it unsuitable for semantic similarity search as well as for unsupervised tasks like clustering. In this publication, we present Sentence-BERT (SBERT), a modification of the pretrained BERT network that use siamese and triplet network structures to derive semantically meaningful sentence embeddings that can be compared using cosine-similarity. This reduces the effort for finding the most similar pair from 65 hours with BERT / RoBERTa to about 5 seconds with SBERT, while maintaining the accuracy from BERT. We evaluate SBERT and SROBERTa on common STS tasks and transfer learning tasks, where it outperforms other state-of-the-art sentence embeddings methods.		
	versions		versions			