

cases	doc_1		doc_2		decision	id
					DUPLICATES	174
	authors	<ul style="list-style-type: none">Tianyu GaoXing-Cheng YaoDanqi Chen	authors	<ul style="list-style-type: none">Tianyu GaoXingcheng YaoDanqi Chen		
	title	SimCSE: Simple Contrastive Learning of Sentence Embeddings	title	SimCSE: Simple Contrastive Learning of Sentence Embeddings		
	publication_date	2021-01-01 00:00:00	publication_date	2021-04-18 11:27:08+00:00		
	source	SupportedSources.OPENALEX	source	SupportedSources.ARXIV		
	journal	arXiv (Cornell University)	journal	None		
	volume		volume			
	doi	10.18653/v1/2021.emnlp-main.552	doi			
	urls	<ul style="list-style-type: none">https://openalex.org/W3156636935https://doi.org/10.18653/v1/2021.emnlp-main.552https://aclanthology.org/2021.emnlp-main.552.pdf	urls	<ul style="list-style-type: none">http://arxiv.org/pdf/2104.08821v4http://arxiv.org/abs/2104.08821v4http://arxiv.org/pdf/2104.08821v4		
	id	id1717676513406846282	id	id-4284377701096123057		
	abstract		abstract	This paper presents SimCSE, a simple contrastive learning framework that greatly advances state-of-the-art sentence embeddings. We first describe an unsupervised approach, which takes an input sentence and predicts itself in a contrastive objective, with only standard dropout used as noise. This simple method works surprisingly well, performing on par with previous supervised counterparts. We find that dropout acts as minimal data augmentation, and removing it leads to a representation collapse. Then, we propose a supervised approach, which incorporates annotated pairs from natural language inference datasets into our contrastive learning framework by using "entailment" pairs as positives and "contradiction" pairs as hard negatives. We evaluate SimCSE on standard semantic textual similarity (STS) tasks, and our unsupervised and supervised models using BERT base achieve an average of 76.3% and 81.6% Spearman's correlation respectively, a 4.2% and 2.2% improvement compared to the previous best results. We also show -- both theoretically and empirically -- that the contrastive learning objective regularizes pre-trained embeddings' anisotropic space to be more uniform, and it better aligns positive pairs when supervised signals are available.		
	versions		versions			