

cases	doc_1		doc_2			decision	id
			authors	<ul style="list-style-type: none">Chandramouli Shama SastrySageev Oore		DUPLICATES	20
	authors	<ul style="list-style-type: none">Chandramouli Shama SastrySageev Oore	title	Detecting Out-of-Distribution Examples with In-distribution Examples and Gram Matrices			
	publication_date	2019-12-28 00:00:00	publication_date	2019-12-28 00:00:00			
	source	SupportedSources.OPENALEX	source	SupportedSources.PAPERS_WITH_CODE			
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	urls	<ul style="list-style-type: none">https://openalex.org/W2997013419	urls	<ul style="list-style-type: none">https://arxiv.org/pdf/1912.12510v2.pdfhttps://github.com/nazim1021/OOD-detection-using-OECC			
	id	id1106321145493333233	id	id2543882509405654360			
	abstract		abstract	When presented with Out-of-Distribution (OOD) examples, deep neural networks yield confident, incorrect predictions. Detecting OOD examples is challenging, and the potential risks are high. In this paper, we propose to detect OOD examples by identifying inconsistencies between activity patterns and class predicted. We find that characterizing activity patterns by Gram matrices and identifying anomalies in gram matrix values can yield high OOD detection rates. We identify anomalies in the gram matrices by simply comparing each value with its respective range observed over the training data. Unlike many approaches, this can be used with any pre-trained softmax classifier and does not require access to OOD data for fine-tuning hyperparameters, nor does it require OOD access for inferring parameters. The method is applicable across a variety of architectures and vision datasets and, for the important and surprisingly hard task of detecting far-from-distribution out-of-distribution examples, it generally performs better than or equal to state-of-the-art OOD detection methods (including those that do assume access to OOD examples).			
	versions		versions				