

**Email Generation** 

## CYCLIP: Cyclic Contrastive Language-Image Pretraining

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#### Abstract

Recent advances in contrastive representation learning over paired image-text data have led to models such as CLIP [44] that achieve state-of-the-art performance for zero-shot classification and distributional robustness. Such models typically require joint reasoning in the image and text representation spaces for downstream inference tasks. Contrary to prior beliefs, we demonstrate that the image and text representations learned via a standard contrastive objective are not interchangeable and can lead to inconsistent downstream predictions. To mitigate this issue, we formalize consistency and propose CYCLIP, a framework for contrastive representation learning that explicitly optimizes for the learned representations to be geometrically consistent in the image and text space. In particular, we show that consistent representations can be learned by explicitly symmetrizing (a) the similar ity between the two mismatched image-text pairs (cross-modal consistency); and (b) the similarity between the image-image pair and the text-text pair (in-modal consistency). Empirically, we show that the improved consistency in CYCLIP translates to significant gains over CLIP, with gains ranging from 10% - 24% for zero-shot classification accuracy on standard benchmarks (CIFAR-10, CIFAR-100,

## **Abstract Generation**

### **Customer Reviews**

★★★★ These work!!

By Covenant on August 29, 2017

Color: white

When we lost the original adapter, we tried several ports: one headset and the other for another lightning port (for a fee). Novels - they do not work, even just headphones jacks. We return to these are their own work often have a good sound quality. They reach the original apple wrap (or at least a very good copy) and work like the original. I booked 2, both are great. Stick to these!

★★★★★ This bad boy will give you all the space for your activities ...

By Arly on November 8, 2017

Color: white7

Will never get rid of. This makes my life easier. I do not have to twist my body anymore, put my back on my bed or couch, trying to use my cellphone and charging with one of the smaller phones, this bad boy will give you all the space for your activities and freely Sit anywhere you want! I might be crazy to bring my lasso to the party, but of course children can, when my phone is charging, everyone will be jealous, but also to participate in debauchery. I like this charger more than most things in life, it keeps valuable charges and prepares anything. You need this charger.

**★★★★★** Good product

By KATHY LYNN TAYLOR on November 16, 2017

or: white1

My rabbit like my four boyfriends charging the cable as chew, he expects me to buy his new .... ew! They are too expensive and I will easily spend a cable charging cable. I stumbled upon the cheap clues of the Amazon, hey, because i could not seem to stop shopping, why was not it surprising? I do not expect these things because they are so cheap !!!!!!!

**Review Generation** 



RAG 2.0: Future of LLMs

#### Discussion

There have been plenty of articles written about Retrieval Augmented Generation (RAG) pipelines, which as a technology is quite cool. But what's next for the technology of RAG.

What if we can create models with trainable retrievers, or in short, the entire RAG pipeline is customizable like fine-tuning an LLM?

The problem with current RAGs is that they are not fully in tune with it's submodules, it's like a Frankenstein monster, it somehow works, but the parts are not in harmony and perform quite suboptimally together. So, to tackle all the issues with Frankenstein RAG, let's take a deep dive into RAG 2.0.

But why does this solve the issue?

Read more ~

# **Topic Writing**