AACL IJCNLP 2022

COFAR: Commonsense and Factual Reasoning in Image Search

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॥ त्वं ज्ञानमयो विज्ञानमयोऽसि ॥

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Can **linking images to encyclopedic knowledge** enable commonsense and factual reasoning in image search?

Problem

A queue of people

॥ त्वं ज्ञानमयो विज्ञानमयोऽसि ॥

Problem

A queue of people

...

...

[Johnson et al., CVPR'15], [Faghri et al., BMVC'18], [Zhang et al., CVPR'19]

Problem

A queue of customers patiently waiting to buy ice cream

Who are customers?
Who is selling ice cream?

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WIKIPEDIA

Who are customers?
Who is selling ice cream?

Problem

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"Häagen-Dazs is an American ice cream brand …"

"Starbucks Corporation is a chain of coffeehouses…"

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"The Taj Mahal is a marble mausoleum in Agra, India."

"Saint Peter's Basilica is a church located in Vatican City."

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WIKIPEDIA

We introduce COFAR

A dataset for Image Search requiring COmmonsense and FActual Reasoning

“The captain of the Argentina national football team celebrating after scoring a goal”

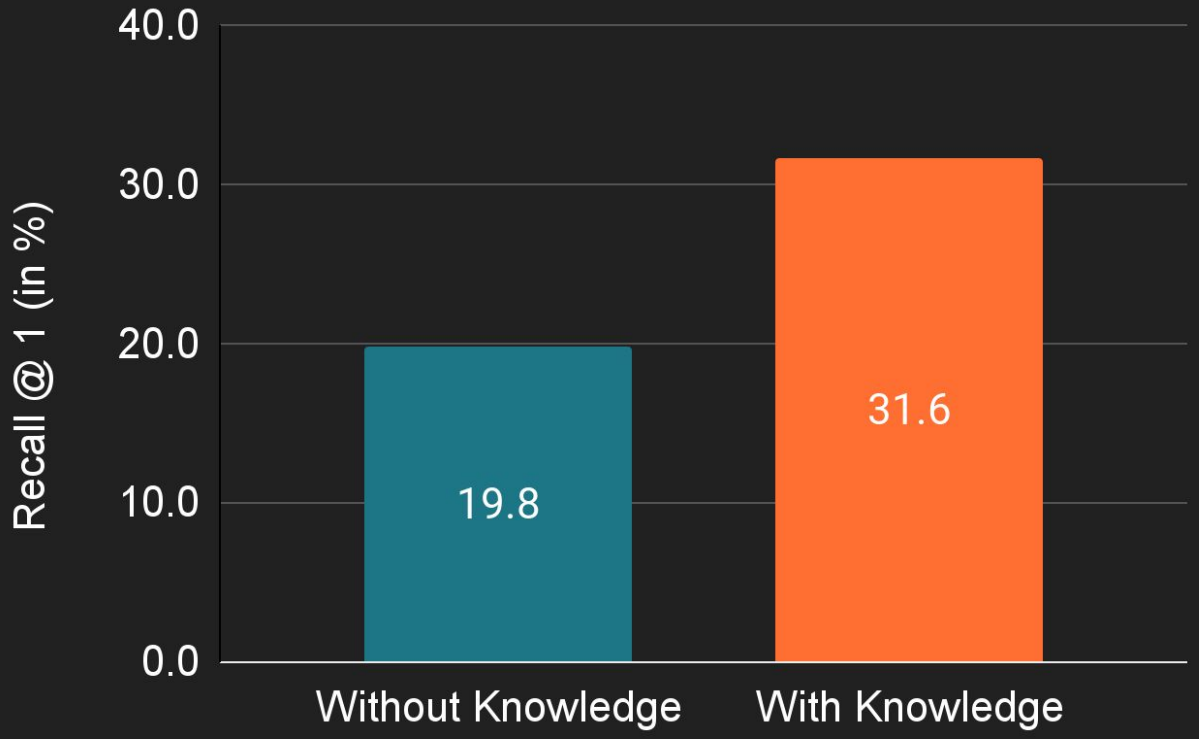
“Two people getting married in front of a tower in Paris”

“Two people showing an interesting to purchase a watch”

Dataset Statistics

- 25K+ Images
- 40K+ Text queries
- 5K+ Named Entities
- Includes banks, restaurants, actors, athletes, landmarks, monuments, and more

Our Baseline Model (KRAMT)



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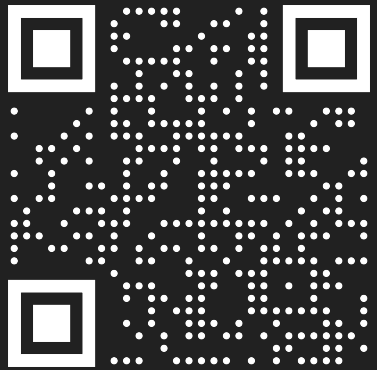
Thank you!

Visit our project page for Code and Dataset

https://vl2g.github.io/projects/cofar



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