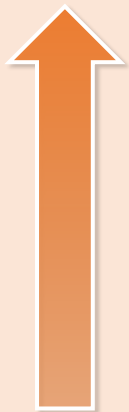


KB-assisted Downstream Tasks

KB as Benchmarks

Understanding



Fine-grained VQA



Q: The patterns on the animal in the image will **change** during growing?

w/o KB: No. (for most dogs)
w/ KB : **Yes.** (for **dalmatian**)

Zero-shot Recognition



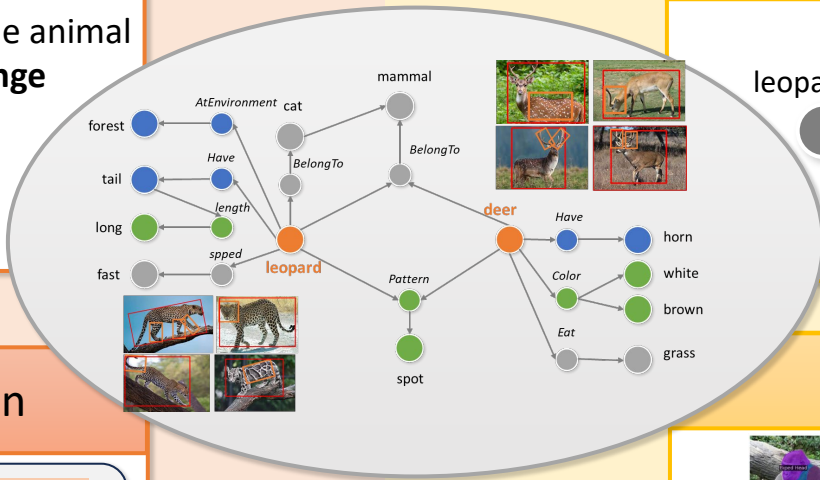
What's the animal?

dalmatian is ...
ginger cat is ...

Animal Knowl.

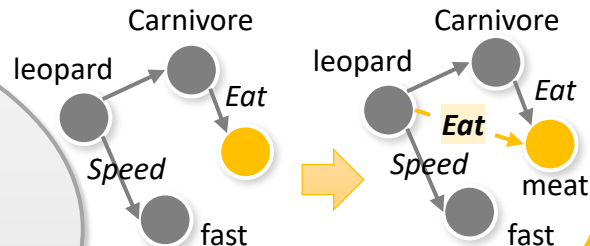
KB-based
Recognizer

dalmatian
:
persian cat
ginger cat

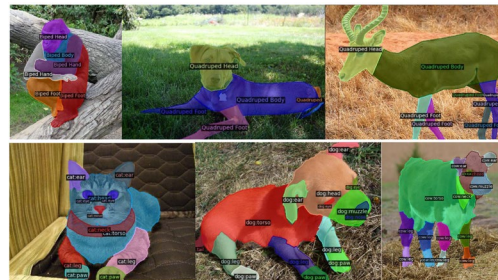


Multi-modal AnimalKB

Benchmark for Knowledge Graph Completion



Benchmark for Part Localization



Text



Image

Recognition