

Danger Detector deployed on Multi-Model Inference Server

Introduction

The inference server will take an image of wildlife as input. The first model will be used to classify animals in the frame. The next model will check the scaled distance between the animals via depth perception. The inference server will make classifications of prey and predator, and also output the danger level of the prey based on overall proximity to one another.

Data sources that will be used

1. [society-ethics/lila_camera_traps · Datasets at Hugging Face](#) (wildlife animals)
2. [DIODE Dataset](#) (depth perception)

List of high-level methods, techniques and/or technologies that you are considering using.

1. End-to-End object detection to classify animals
 - a. [facebook/detr-resnet-50 · Hugging Face](#)
2. Depth Perception model

Will get pixel coordinates of objects from the first model, and obtain a scaled distance by inputting through a depth perception model, in order to get actual distance between animals.

Products to be delivered

A 2-stage model inference server will be able to handle POST requests and return a JSON formatted output classifying animals as predator or prey and the danger level of the prey.