Friday, 20 December 2024

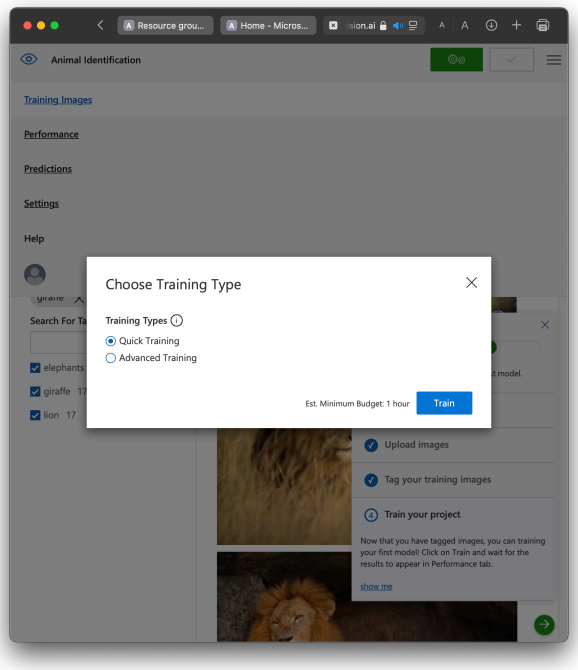
03b-create-object-detection-solution

By MONISH NULE

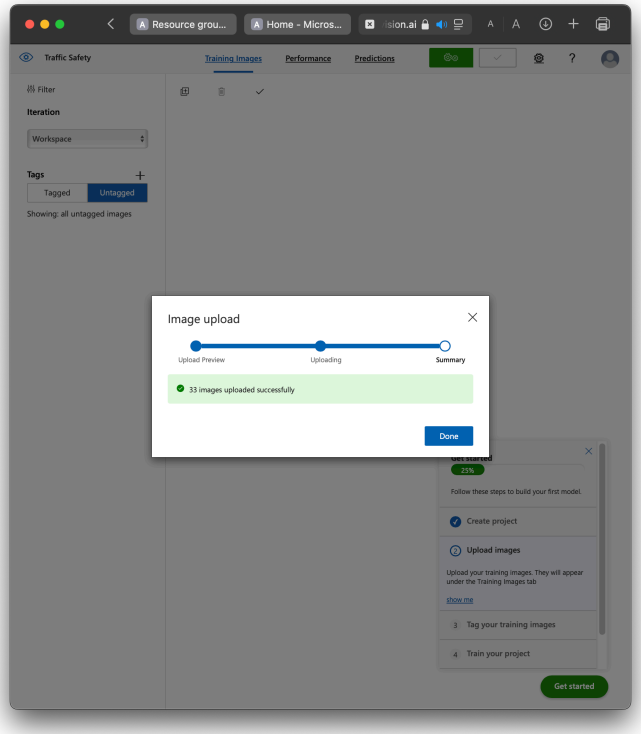
-
- Explore object detection.
-
- Object detection is a form of computer vision in which a machine learning model is trained to classify individual instances of objects in an image, and indicate a bounding box that marks its location. You can think of this as a progression from image classification (in which the model answers the question "what is this an image of?") to building solutions where we can ask the model "what objects are in this image, and where are they?". For example, a road safety initiative might identify pedestrians and cyclists as being the most vulnerable road users at traffic intersections. By using cameras to monitor intersections, images of road users could be analyzed to detect pedestrians and cyclists in order to monitor their numbers or even change the behavior of traffic signals. The Custom Vision service in Microsoft Azure provides a cloud-based solution for creating and publishing custom object detection models. In Azure, you can use the Custom Vision service to train an object detection model based on existing images. There are two elements to creating an object detection solution. First, you must train a model to detect the location and class of objects using labelled images. Then, when the model is trained you must publish it as a service that can be consumed by applications. To test the capabilities of the Custom Vision service to detect objects in images, we'll use a simple command-line application that runs in the Cloud Shell. The same principles and functionality apply in real-world solutions, such as web sites or mobile apps.

- Upoaded images to computervision.ai

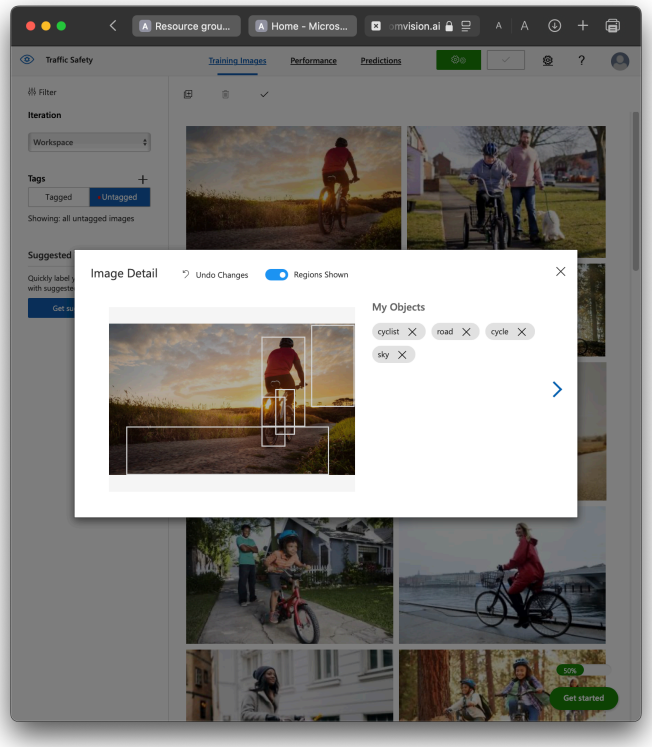
1



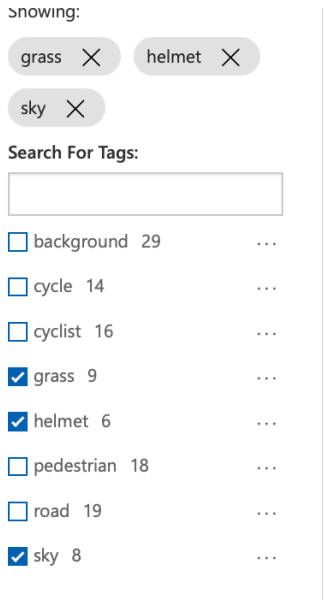
- Uploaded images to computervision.ai



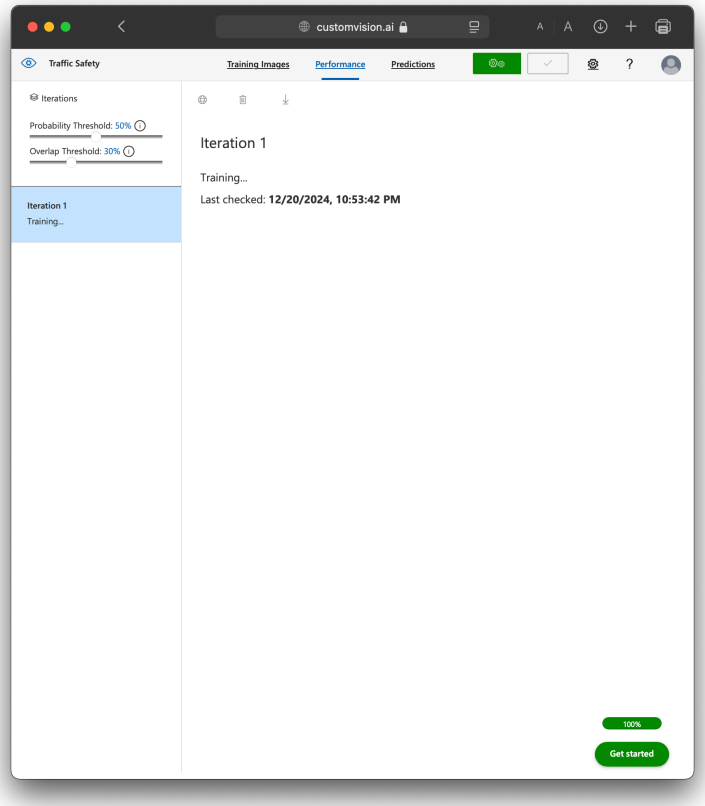
- Putting object name manually with Box Bounding mechanism built in this model.



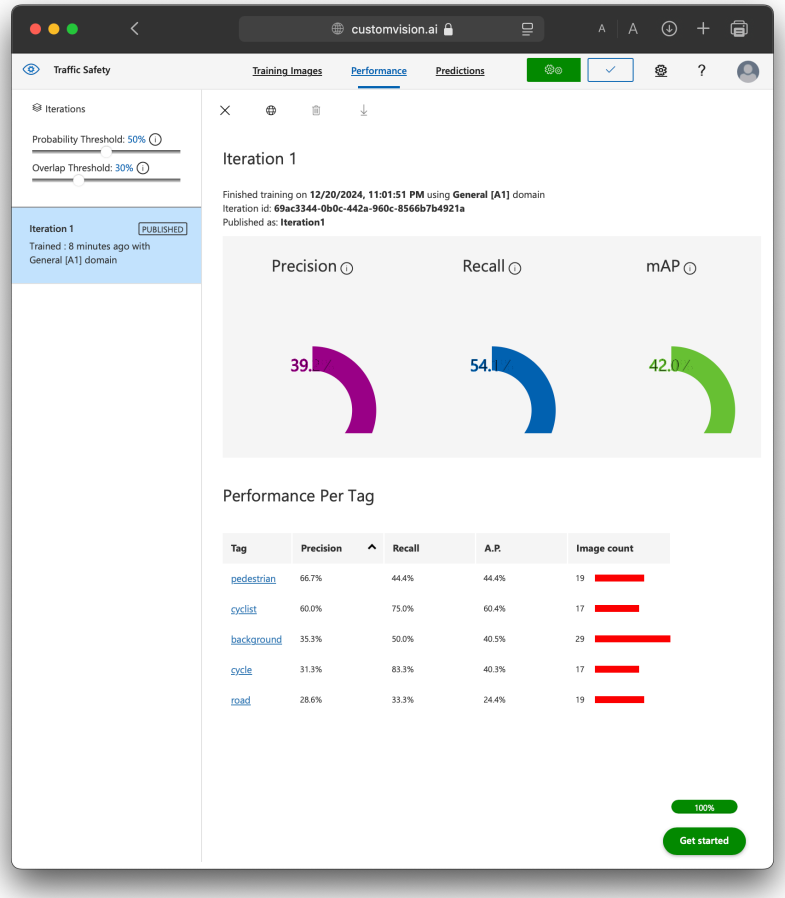
- Deleting tags which has count less than 17, other 14 16 I can make them 17 or more in 1min.



- Finally training with those images to computer vision, started at 10.55pm



- Finished training at 11.10pm



- the bbox is strange here, how do I define it ? But the confidence level good.