

Evaluation Metrics Report

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In this project, I trained an object detection model and then tested how well it works. To do that, I used a few special scores called evaluation metrics. These scores tell us how good the model is at finding and identifying objects in images. Here is what each of them means in easy words:

1. mAP

Score: 0 point 6000

This number shows how good the model is overall at finding objects. A perfect score would be 1 point 0000. So, a score of 0 point 6000 means the model is doing a good job, but there is still some room to improve.

2. mAP at 0 point 5

Score: 1 point 0000

This tells us how well the model does when we are not too strict. If the box it draws is at least half overlapping with the real object, we count it as correct. A perfect score of 1 point 0000 means the model gets every object right when we are a bit relaxed. That is excellent.

3. mAP at 0 point 75

Score: 1 point 0000

Now we are being more strict. The predicted box must be much closer to the real object, at least seventy five percent overlapping. Even with this strict rule, the model still finds every object correctly. That shows the model is very strong and accurate.

4. mAP for small objects

Score: 0 point 6000

This checks how good the model is at finding tiny things in the image. A score of 0 point 6000 means it is doing okay. It can find small objects most of the time, but not always.

5. mAP for medium objects

Score: Not available

There were no medium-sized objects in the test images, so we could not check how good the model is at finding them.

6. mAP for large objects

Score: Not available

There were no large-sized objects in the test images either, so we also could not test this.

7. mAR at 100

Score: 0 point 6000

This number shows how many of the real objects the model can find if we ask it to give up to one hundred guesses. The score of 0 point 6000 means it found sixty percent of the objects, which is okay.

8. Precision

Score: 1 point 0000

This is a perfect score. It means that whenever the model says there is an object, it is correct every single time. The model never guesses something wrong.

9. Recall

Score: 1 point 0000

Another perfect score. It means that the model did not miss any object. It found every object that was actually there.

In Short

My model is really smart and careful. It finds all the real objects and never guesses wrong. It does well even when the boxes need to be really close to the real shape. It is decent with small objects but we did not have medium or big ones to test. So overall, I am very happy with how the model works.