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# Project 1: Object Detection on COCO(score 20)

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Project 1 for Deep Learning, Autumn 2021

Deadline: 2021.11.29 23:55:00

## 1 Introduction

Object detection is a very important and challenge task in computer vision. In this project, we have implemented most parts of the famous detection algorithm **Faster R-CNN**, and you need to complete code of the inference process. After that, you are supposed to run the inference code, and get the evaluation results on the subset of COCO based on the model we have trained for you. Code can be downloaded from here: Faster R-CNN in Mindspore.

### 1.1 Requirements

**You are required to complete the function 'faster\_rcnn\_eval' in eval.py.** If implemented correctly, following the instructions in README.md, you can obtain the inference log in 'scripts/eval'. More details about the code can be found in README.md

**You need to submit all codes and a short report** including the following requirements:

- the evaluation results (mAP);
- the code you implemented with detailed comments (function of each code snippet);
- visualize both the detection results and the ground-truth annotations, and compare the differences (plot at least five representative example pairs). Can the detection results be further improved? From which aspects?

## 2 Attention

- You need to submit all codes and a report (at least two pages **in PDF format**).
- **Plagiarism is not permitted.**