

YOLOv5(PyTorch)

目标检测实战

(Windows)

训练自己的数据集



ultralytics / yolov5

Watch 119 Star 5.3k

Code Issues 165 Pull requests 7 Actions Wiki Security Insights

Join GitHub today

GitHub is home to over 50 million developers working together to host and review code, manage projects, and build software together.

Sign up

Dismiss

master 6 branches 3 tags Go to file Code

faaip and glenn-jocher Remove image open on macos (#1086) ✓ d11504a 21 hours ago ⌚ 653 commits		
.github	Update ci-testing.yml reflecting sys.path additions (#869)	4 days ago
data	Update get_voc.sh data download URLs (#1077)	4 days ago
inference/images	initial commit	4 months ago
models	classifier, export, torch seed updates	2 days ago
utils	torchvision nms bug fix	2 days ago

About

YOLOv5 in PyTorch > ONNX > CoreML > iOS

www.ultralytics.com

- yolov3 yolov4 yolov5
- object-detection pytorch onnx
- coreml ios tfLite

Readme

GPL-3.0 License

真香



你与目标检测高手，
只差一个YOLOv5

YOLOv5(PyTorch)
目标检测实战
(Ubuntu)

训练自己的数据集

YOLOv5(PyTorch)
目标检测实战
(Windows)

训练自己的数据集

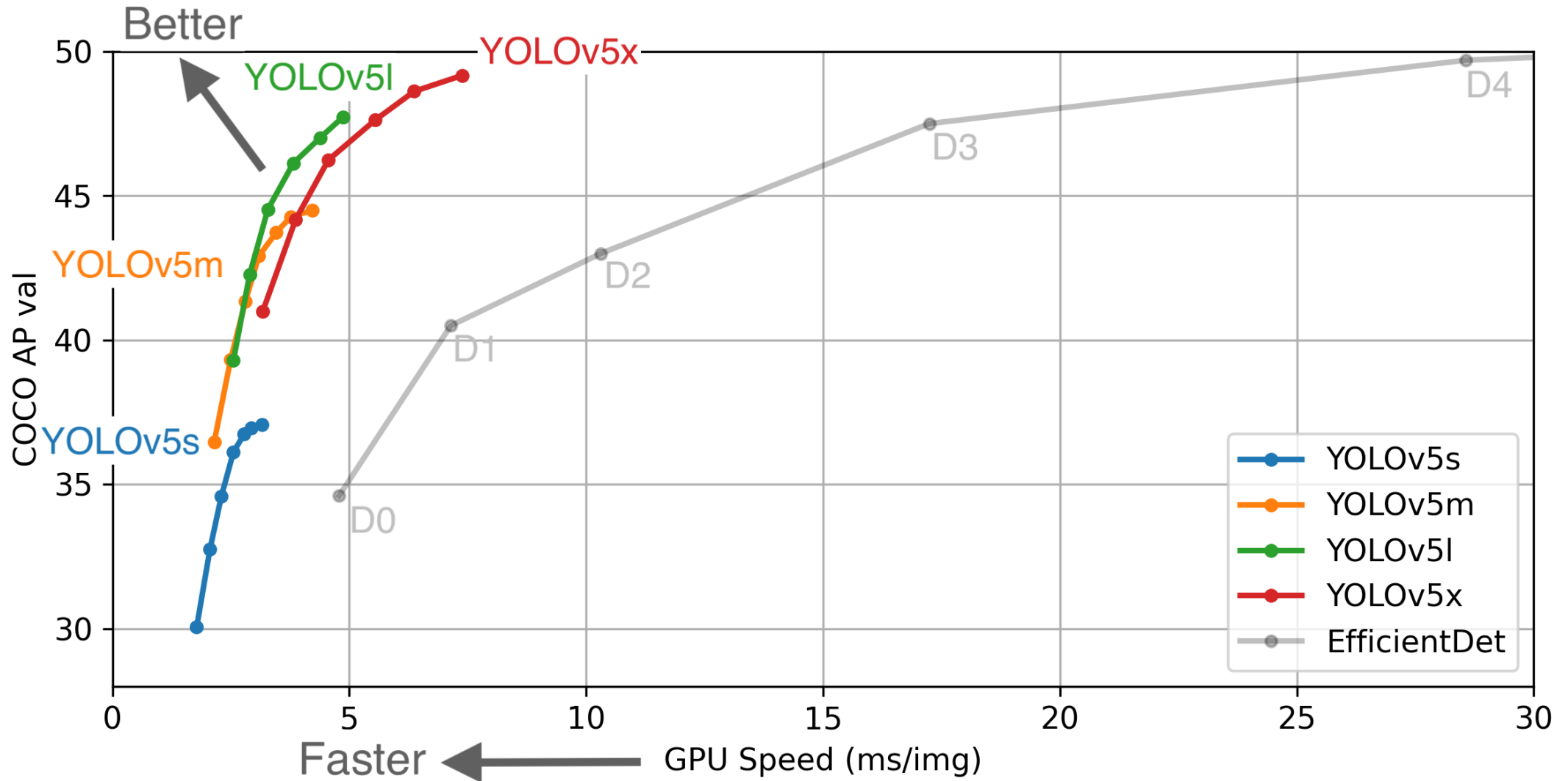
YOLOv5(PyTorch)
目标检测

原理与源码解析

YOLOv5(PyTorch)
目标检测实战

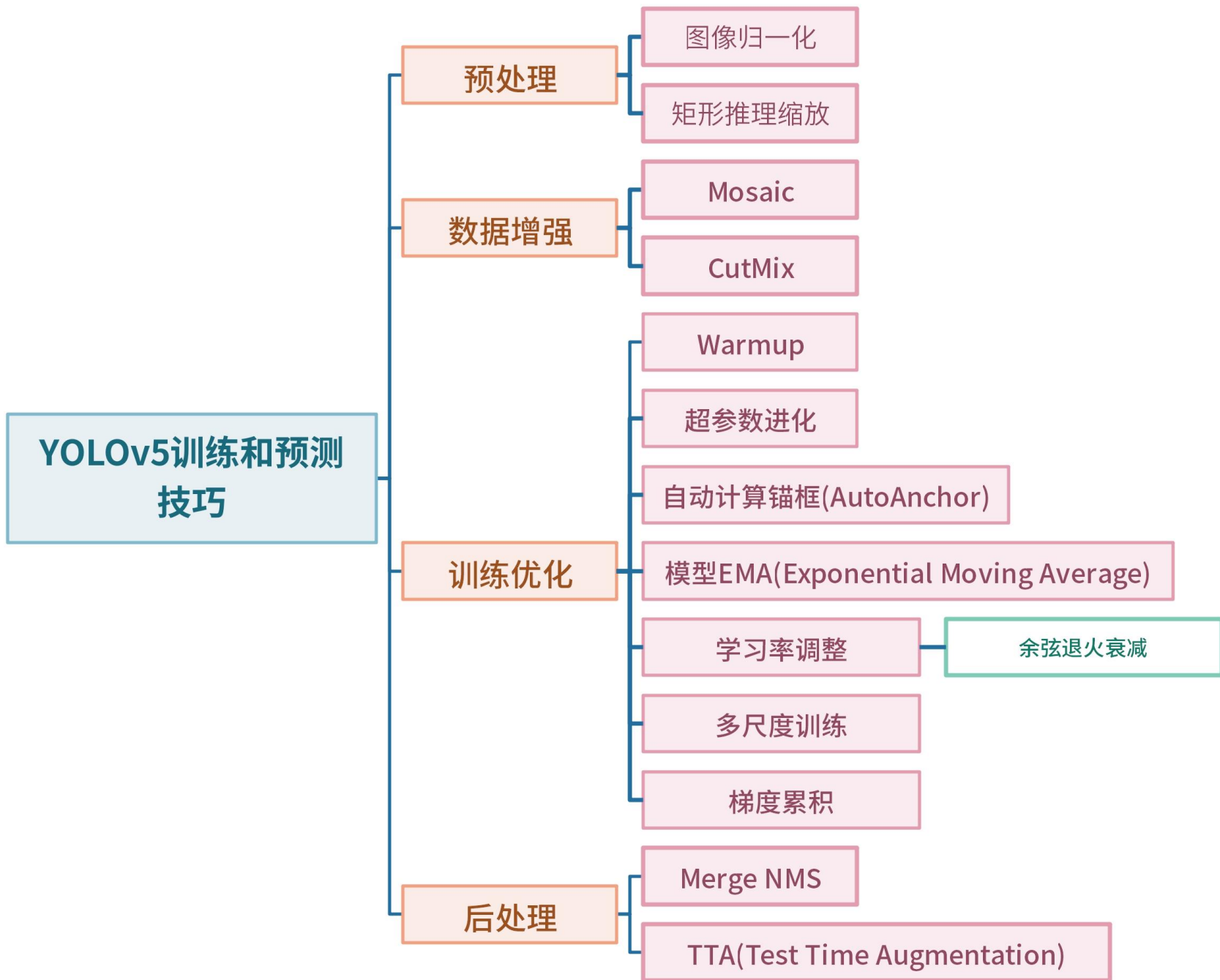
Flask Web部署

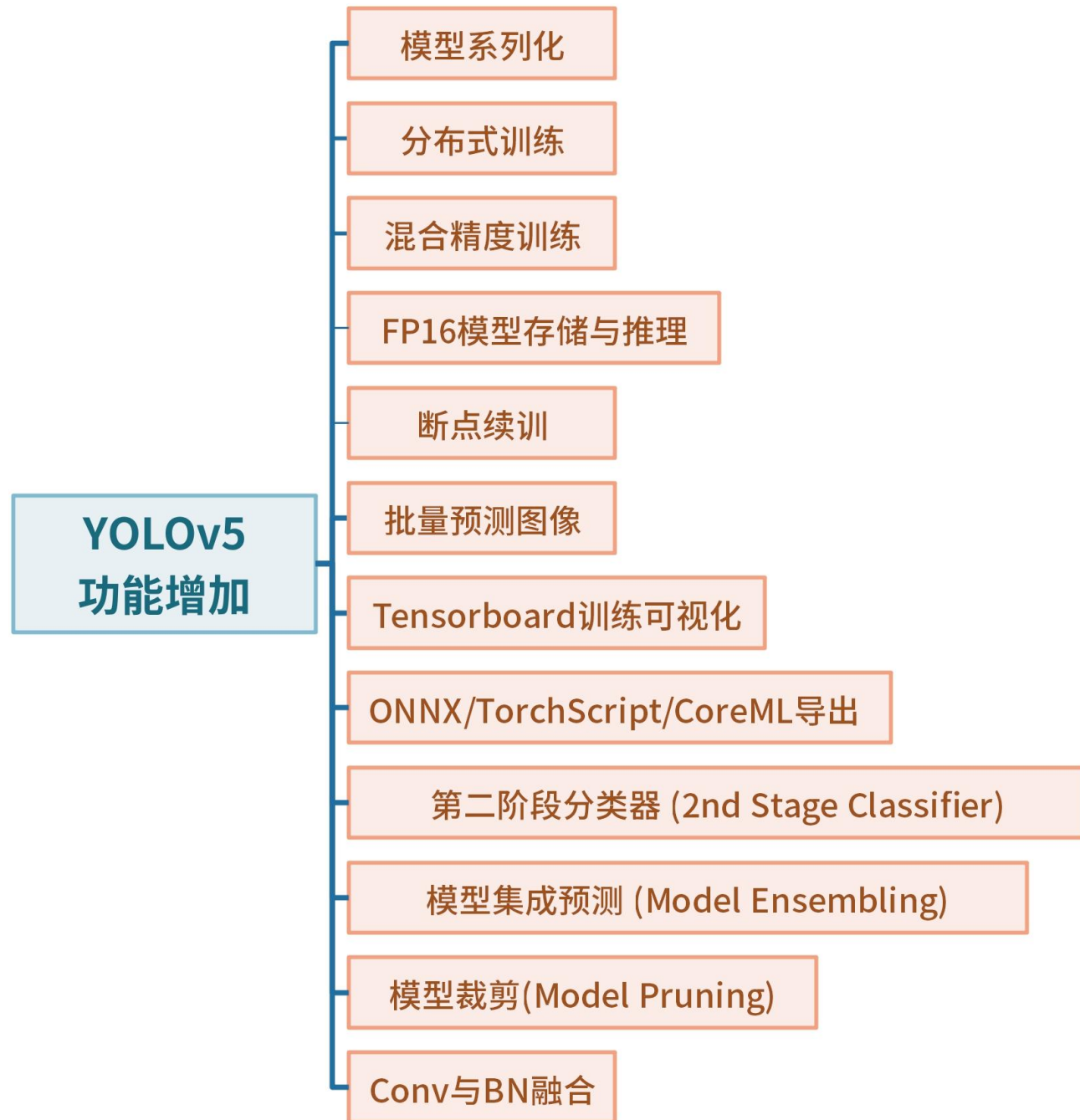
YOLOv5来了!



Pretrained Checkpoints

Model	AP^{val}	AP^{test}	AP_{50}	$Speed_{GPU}$	FPS_{GPU}		params	FLOPS
YOLOv5s	37.0	37.0	56.2	2.4ms	416		7.5M	13.2B
YOLOv5m	44.3	44.3	63.2	3.4ms	294		21.8M	39.4B
YOLOv5l	47.7	47.7	66.5	4.4ms	227		47.8M	88.1B
YOLOv5x	49.2	49.2	67.7	6.9ms	145		89.0M	166.4B
YOLOv5x + TTA	50.8	50.8	68.9	25.5ms	39		89.0M	354.3B
YOLOv3-SPP	45.6	45.5	65.2	4.5ms	222		63.0M	118.0B





课程内容

项目1：单目标目标检测：
足球(YOLOv5s)
项目2：多目标目标检测：
足球和梅西(YOLOv5x)

YOLOv5网络架构、组件、loss函数

(1) 使用labelImg进行图像标注

(2) 准备自己的数据集
(使用脚本自动划分训练集和验证集)

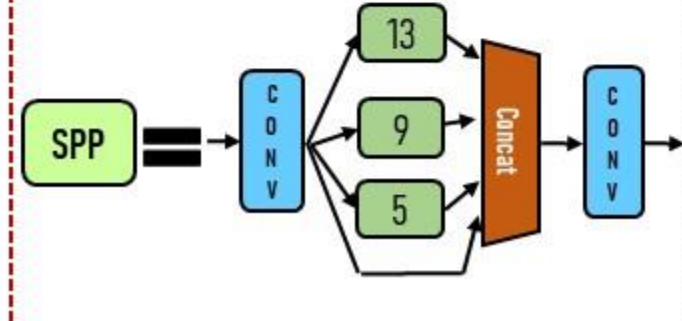
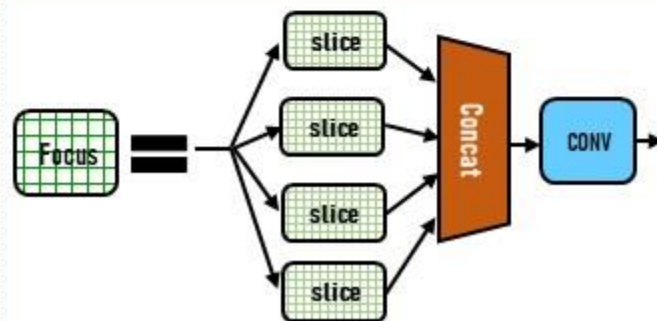
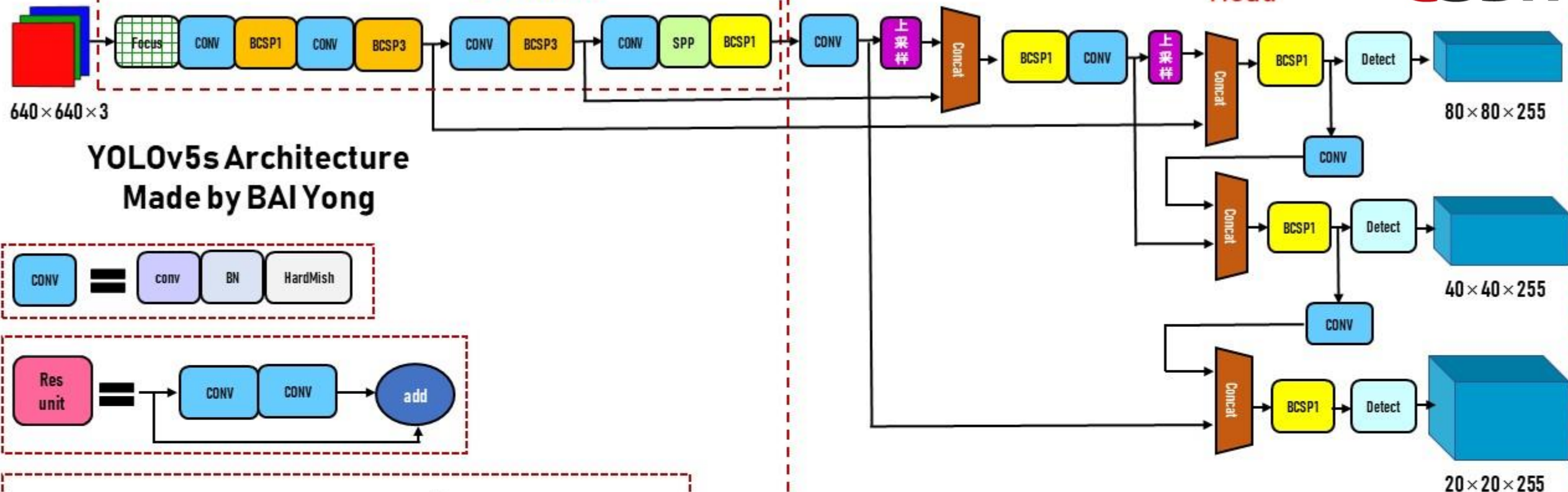
(3) 修改YOLOv5配置文件

(4) 训练YOLOv5网络

(5) 测试YOLOv5网络

Backbone

Head



单目标检测：足球



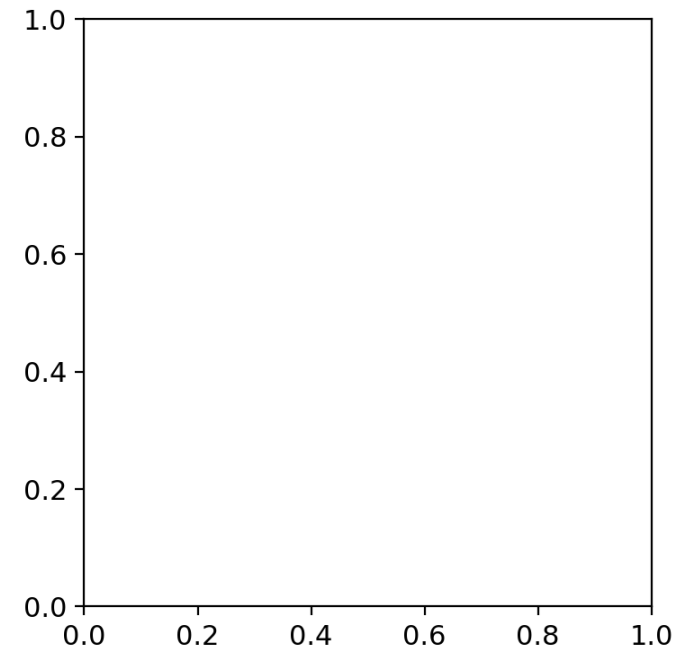
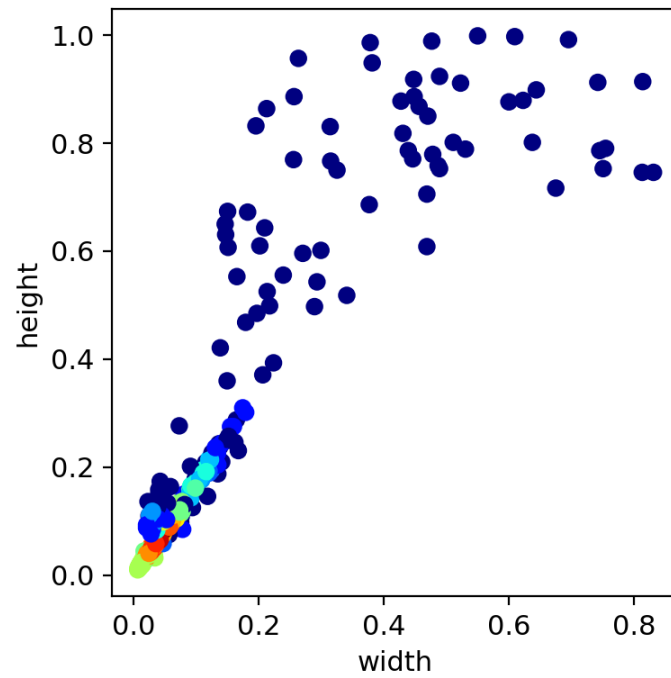
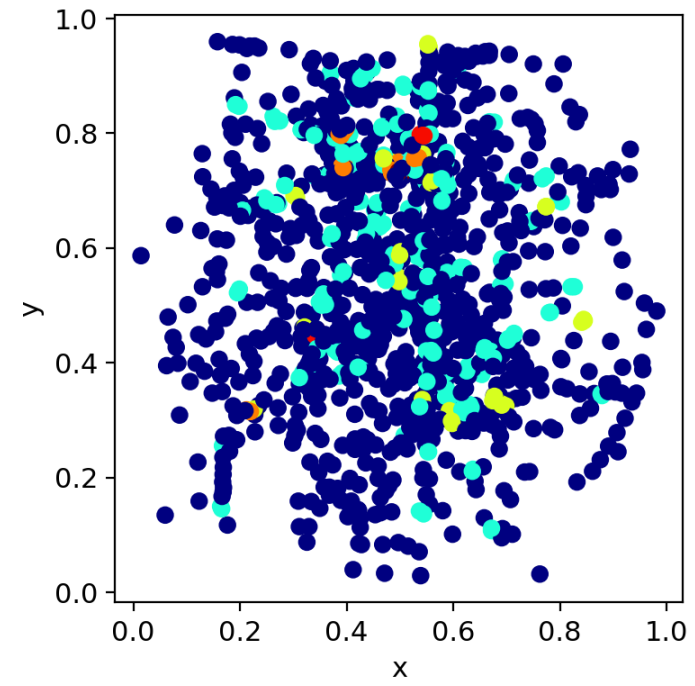
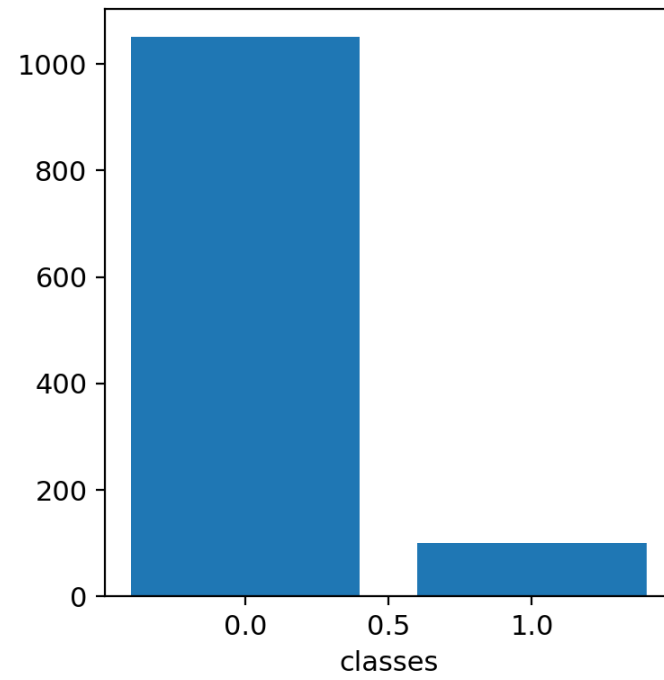
多目标检测：足球和梅西

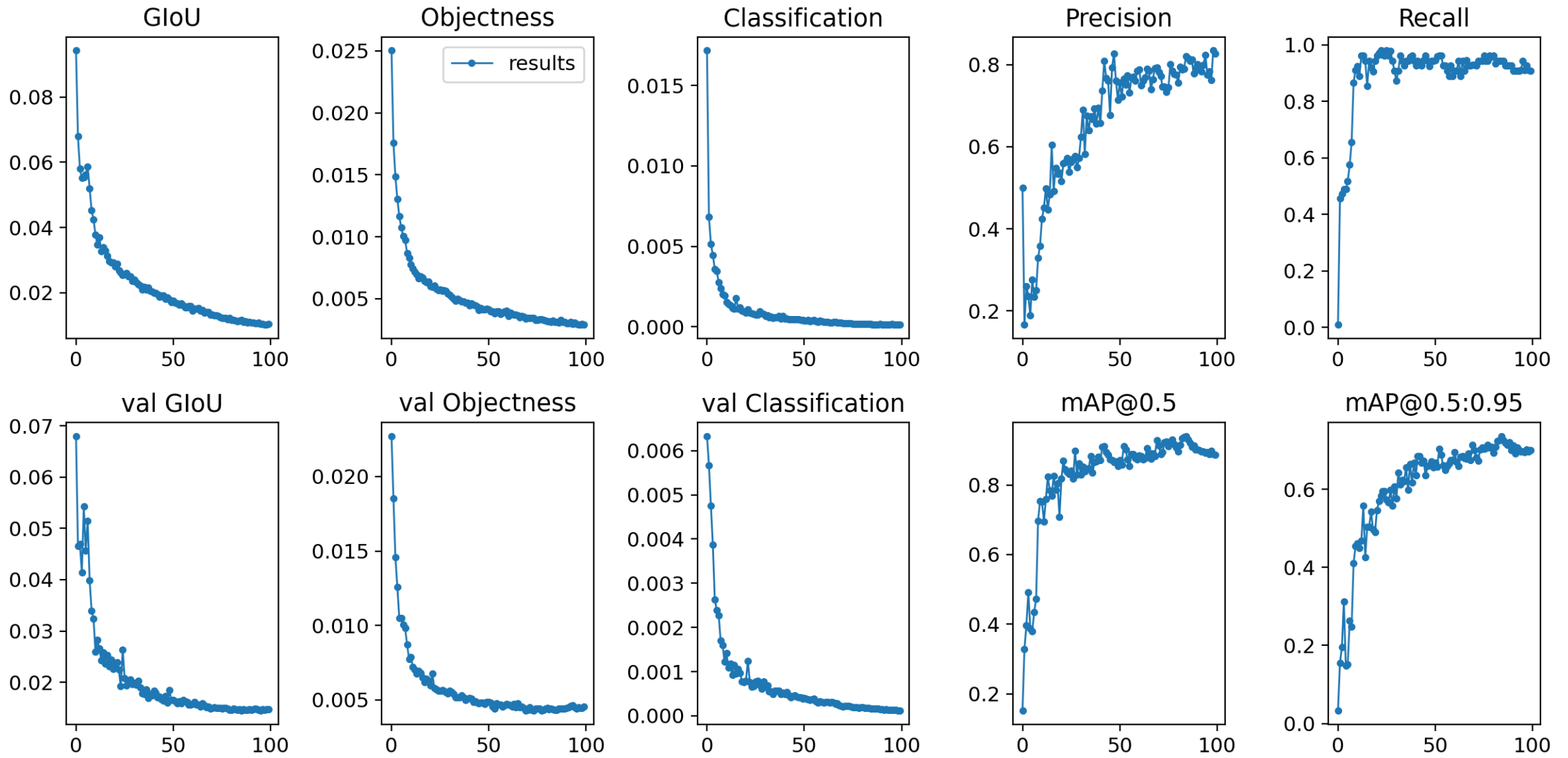


图像标注工具：labelImg









☐ Show data download links

☒ Ignore outliers in chart scaling

Tooltip sorting method: default

Smoothing

0.6

Horizontal Axis

STEP

RELATIVE

WALL

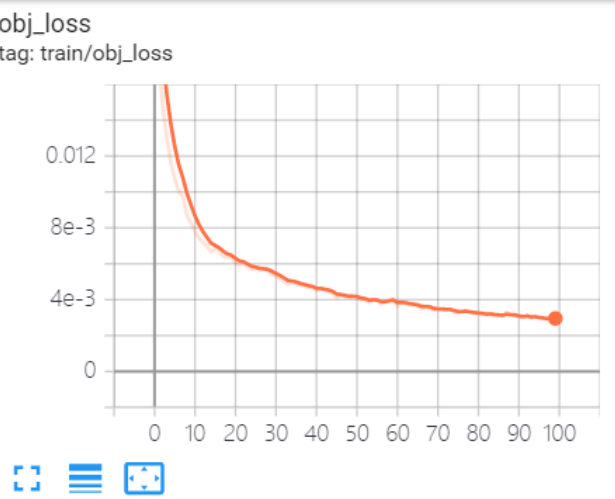
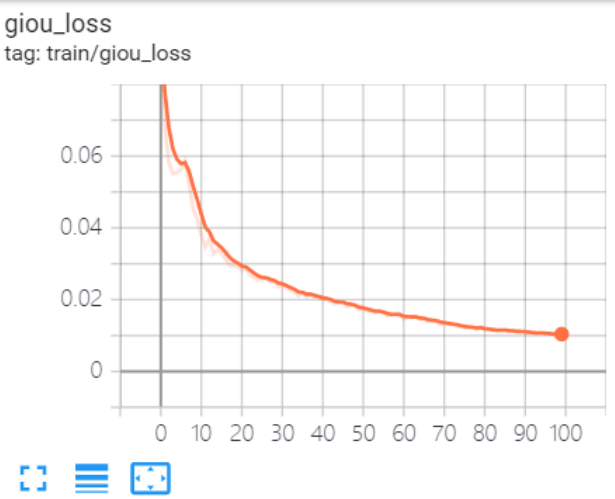
Runs

Write a regex to filter runs

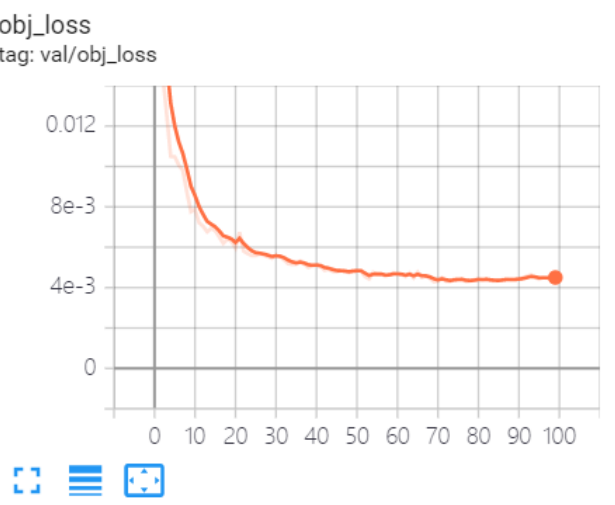
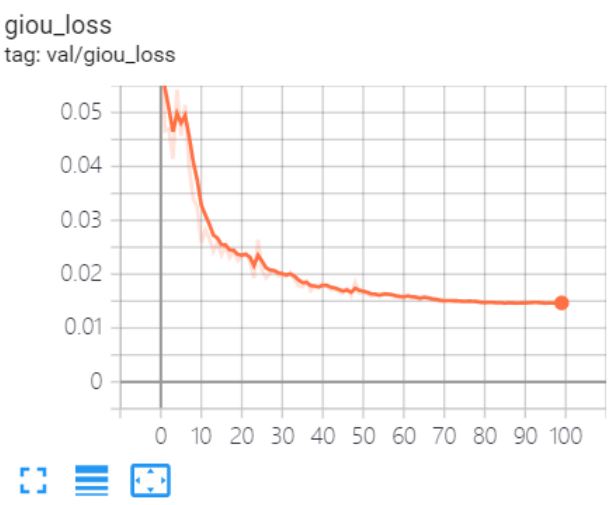
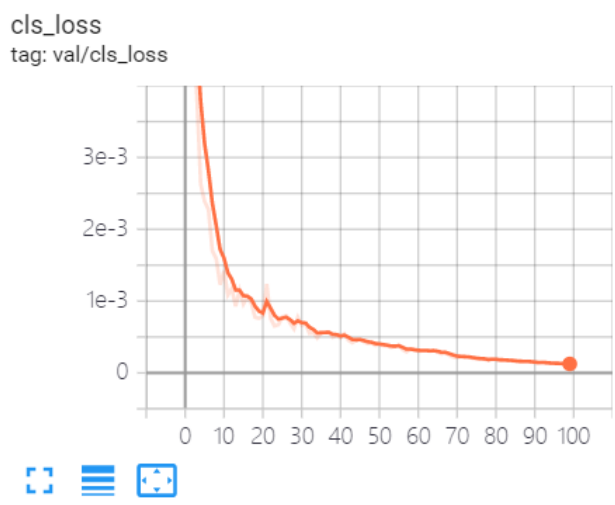
☒ ☐ exp0

TOGGLE ALL RUNS

./runs



val



真香？



声明

本课程的数据集、程序文件以及课件的演示文稿、视频由讲师白勇拥有知识产权的权利。只限于学习者在本课程使用，不得在课程范围外向任何第三方散播。任何其他人或机构不得盗版、复制、仿造。

