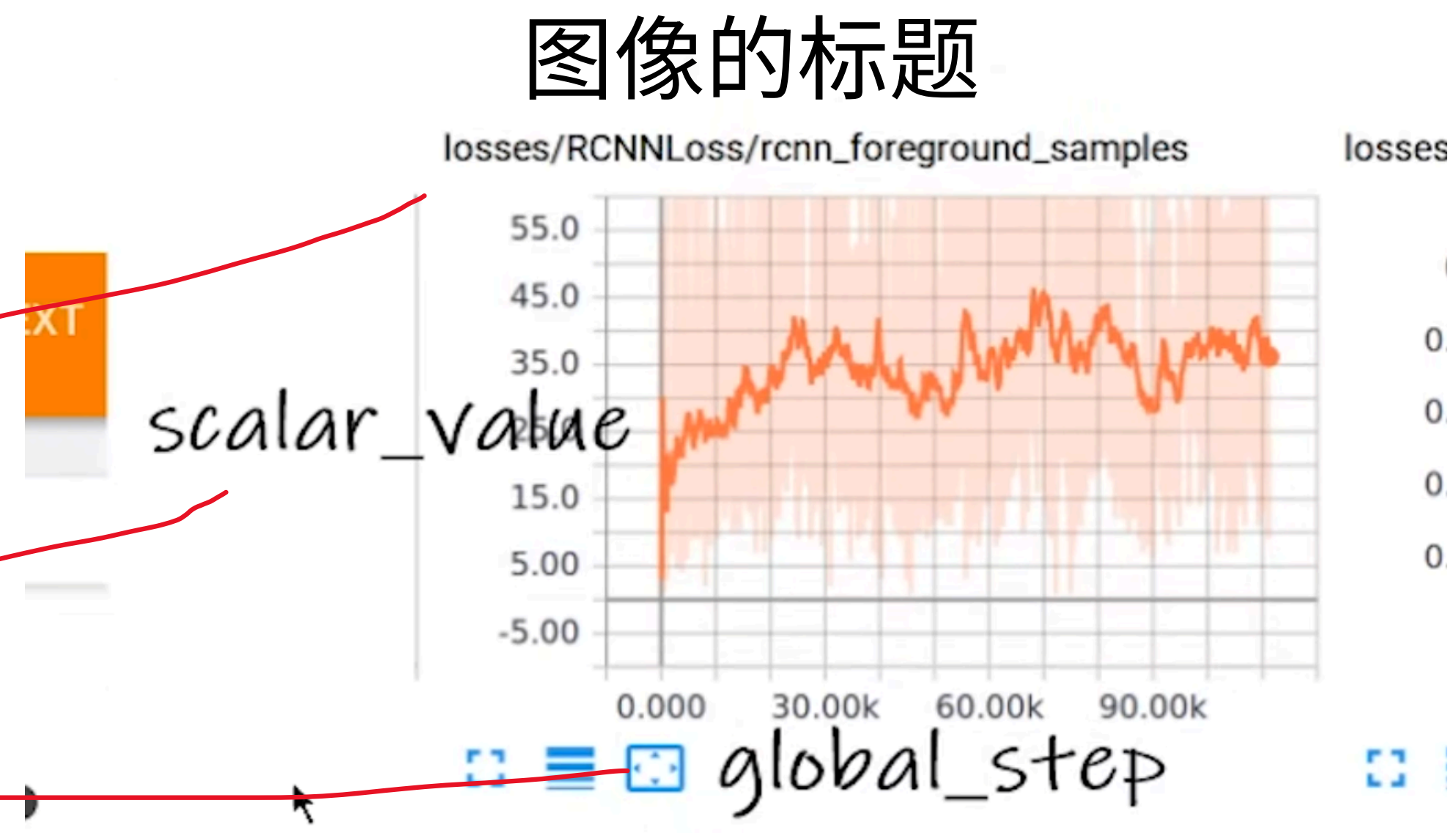


tensorboard

主要用于模型的训练中，可以可视化模型的训练过程，帮助我们更好得去调试和分析模型。

```
def add_scalar(
    self,
    tag,
    scalar_value,
    global_step=None,
    walltime=None,
    new_style=False,
    double_precision=False,
):
    """Add scalar data to summary.

    Args:
        tag (str): Data identifier
        scalar_value (float or string/blobname): Value to save
        global_step (int): Global step value to record
        walltime (float): Optional override default walltime (time.time())
            with seconds after epoch of event
        new_style (boolean): Whether to use new style (tensor field) or old
```



```
(pytorch) PS D:\pycharm_space\PycharmProjects\PythonProject1> tensorboard --logdir tensorboard/logs --port 6008
D:\anaconda3\envs\pytorch\lib\site-packages\tensorboard\default.py:38: UserWarning: pkg_resources is deprecated as an API. See https://github.com/pypa/packaging/issues/599 for details.
  import pkg_resources
TensorFlow installation not found - running with reduced feature set.
Serving TensorBoard on localhost; to expose to the network, use a proxy or pass --bind_all
TensorBoard 2.20.0 at https://localhost:6008/ (Press Ctrl-C to quit)
W1114 15:19:29.208087 146132 application.py:559] path /hybridaction/zybTrackerStatisticsAction not found, sending 404
W1114 15:19:29.216076 129576 application.py:559] path /hybridaction/zybTrackerStatisticsAction not found, sending 404
W1114 15:41:13.669266 144112 application.py:559] path /hybridaction/zybTrackerStatisticsAction not found, sending 404
W1114 15:41:13.670267 124960 application.py:559] path /hybridaction/zybTrackerStatisticsAction not found, sending 404
W1114 15:42:20.933279 144852 application.py:559] path /hybridaction/zybTrackerStatisticsAction not found, sending 404
W1114 15:42:20.953834 143336 application.py:559] path /hybridaction/zybTrackerStatisticsAction not found, sending 404
```

```
Python 控制台 × Python 控制台 (1) × +
tensorboard --log_dir=logs
SyntaxError: cannot assign to operator
不是在python控制台里打开
In [3]: tensorboard --log_dir logs
Cell In[3], line 1
>>> tensorboard --log_dir logs
SyntaxError: invalid syntax
```

绝对路径时反斜杠"\"
相对路径是正斜杠"/"
反斜杠会被当做转义

加个\防止转义

中间直接用空格就行了，用等号也行，但是等号前后就不能加空格了

```
1 from torch.utils.tensorboard import SummaryWriter
2 import cv2
3
4 writer = SummaryWriter("logs")#对SummaryWriter创建实例 文件存储在logs文件夹下
5 image_path = "D:\pycharm_space\PycharmProjects\PythonProject1\dataset\train\bees\21399619_3e61e5bb6f.jpg"
6 img = cv2.imread(image_path,cv2.IMREAD_COLOR)
7 #常用的两个方法
8 print(type(img))
9 print(img.shape)
10 writer.add_images(tag="test",img, global_step=2,dataformats="HWC")
11 for i in range(100):
12     writer.add_scalar(tag='y = 3x',3*i,i)
13
14 writer.close()
```

根据add_image描述文件排查错误

是NCHW 格式 (4 维: 批量数 × 通道 × 高度 × 宽度)，两者维度长度不匹配 (3 维 vs 4 维) 导致断言失败。

最直接的解决方法: 明确指定数据格式

既然你的图像是 (H, W, C) 格式的 numpy 数组，只需在 add_images 中用 dataformats 参数明确告诉 TensorBoard 当前格式，无需复杂转换:

```
python -
import cv2
from torch.utils.tensorboard import SummaryWriter

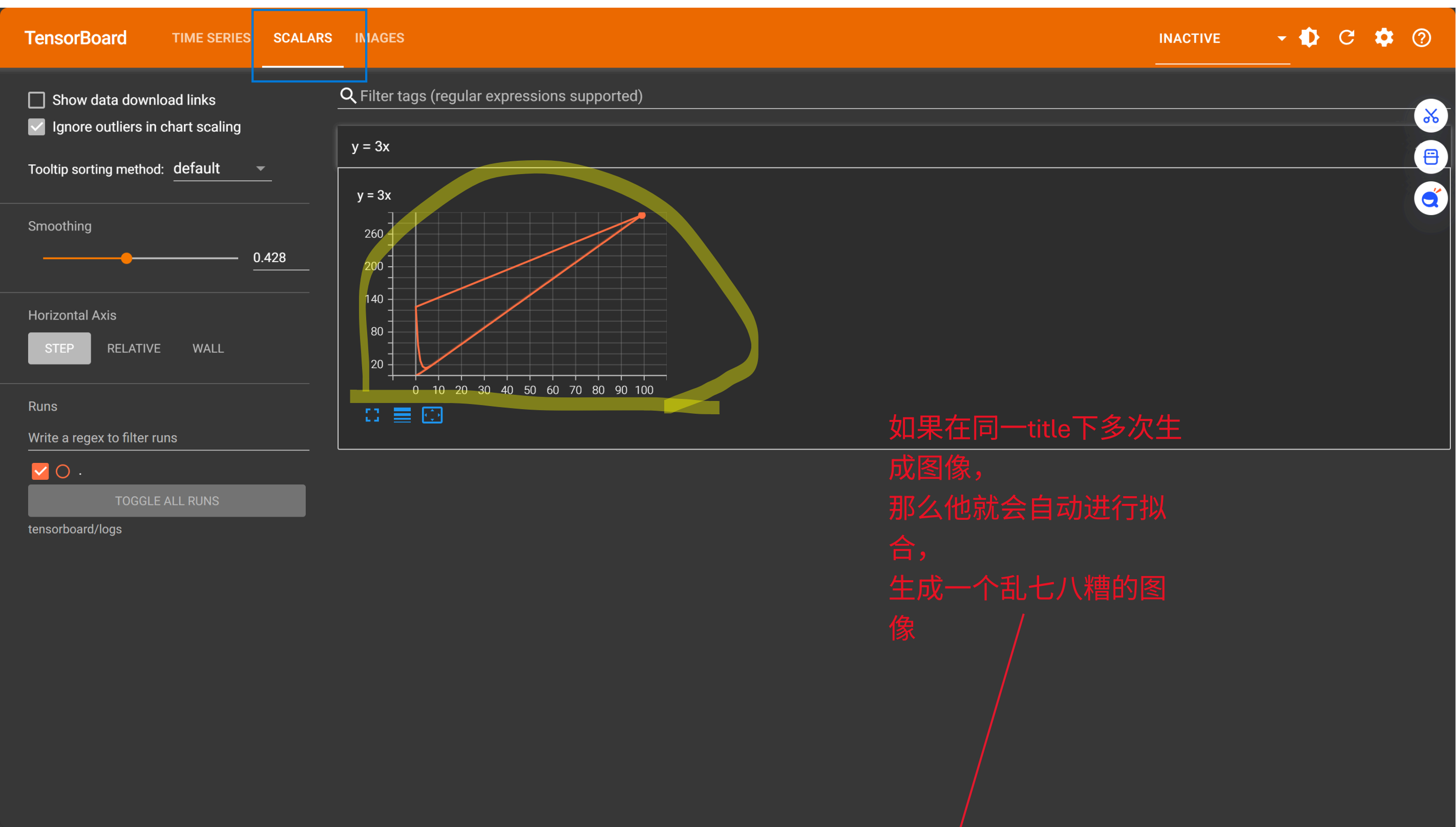
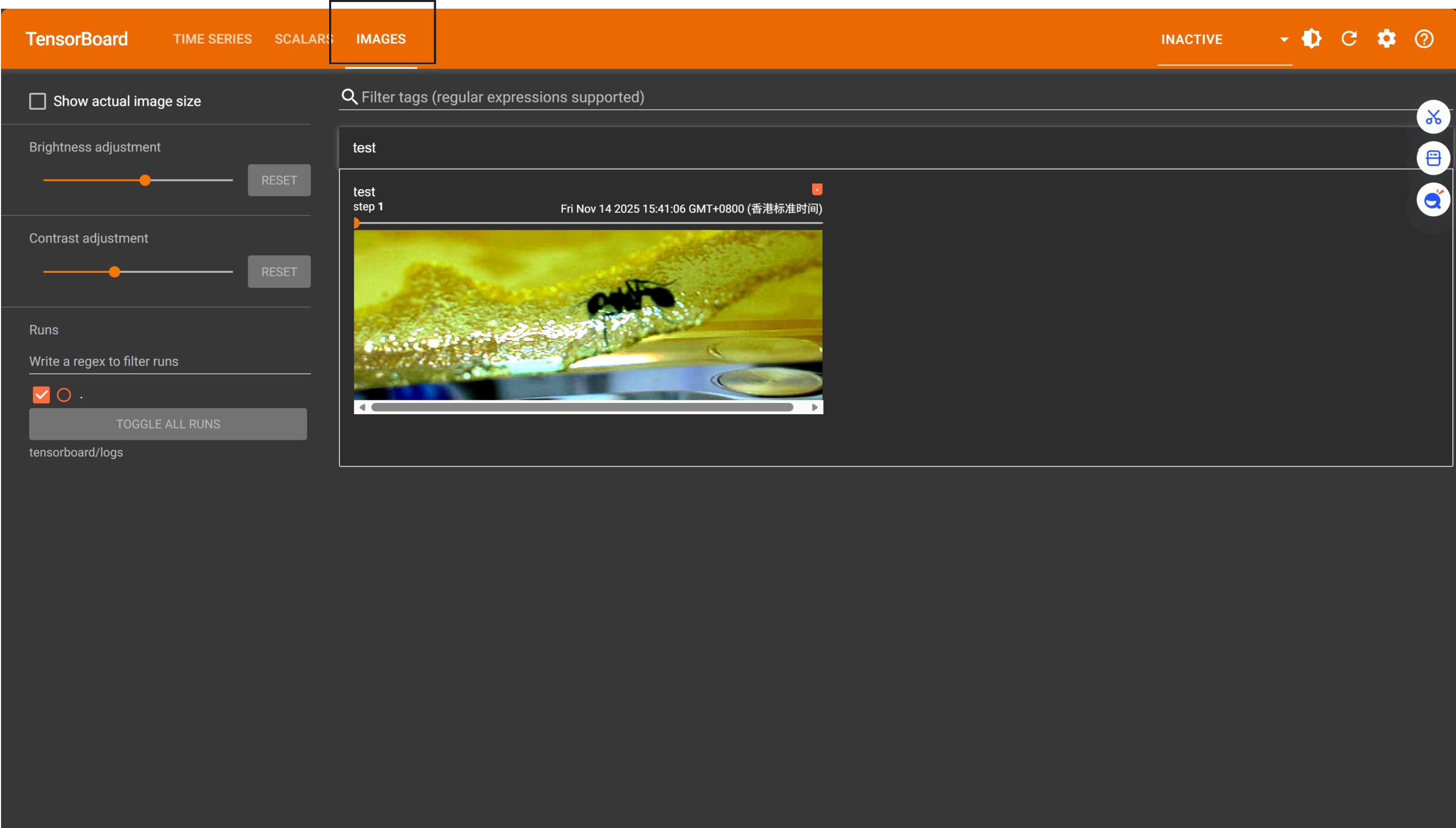
# 1. 读取图像 (确保路径正确, 此处假设已读取成功)
img = cv2.imread("dataset/train/ants/563036c_e22b7e1865.jpg") # 形状为 (H, W, 3), BGR格式

# 2. 转换颜色为RGB (否则显示颜色异常)
img_rgb = cv2.cvtColor(img, cv2.COLOR_BGR2RGB) # 仍为 (H, W, 3)

# 3. 写入TensorBoard, 明确指定数据格式为"HWC"
writer = SummaryWriter("logs")
# 关键: 指定 dataformats="HWC", 告诉板数当前数据是 (高度, 宽度, 通道)
writer.add_images("test", img_rgb, global_step=1, dataformats="HWC")
writer.close()
```

为什么这样能解决?

- add_images 函数通过 dataformats 参数识别输入维度，默认是 NCHW (4 维)，但你的图像是 HWC (3 维)。
- 显式指定 dataformats="HWC" 后，函数会按 (高度, 宽度, 通道) 解析你的 3 维数组，无需额外增加批量维度 (单张图像会自动处理)。



如果在同一title下多次生成图像，那么他就会自动进行拟合，生成一个乱七八糟的图像

把存放数据的文件夹删除 (logs)

control
+c关闭终端的运行
再重新打开网页
(直接刷新时不行的)