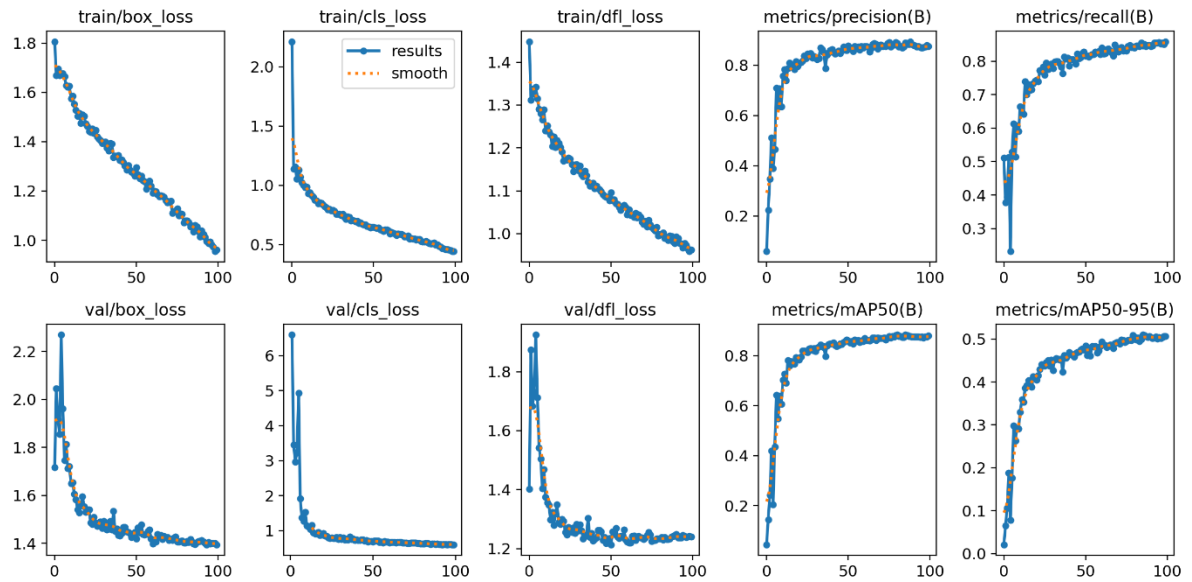


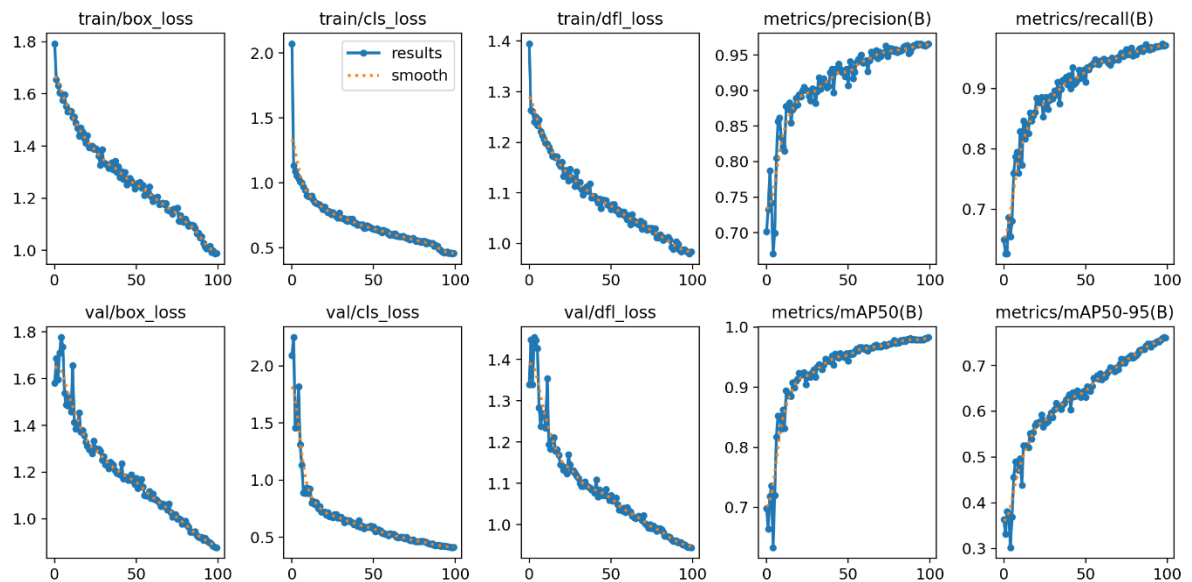
Swimmer Detection

허재호

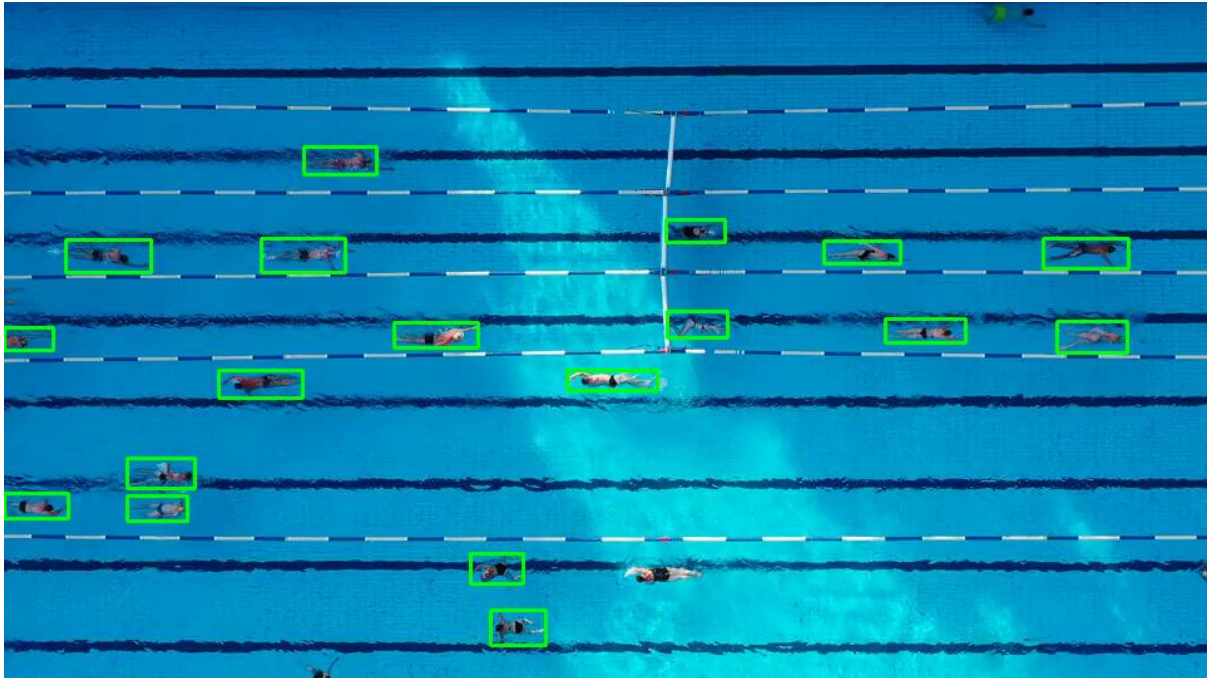
Train Data Results



Train + Val Data results



Test Results



Coco to YOLO Code

```
def convert_coco_to_yolo(coco_json_file, org_images_folder, images_folder, labels_folder):
    with open(coco_json_file, 'r', encoding='utf-8') as f:
        data = json.load(f)
    images = data['images']
    annots = data['annotations']

    for image in images :
        org_file_name = image['file_name']
        file_name = org_file_name.split('.')[0]
        id = image['id']
        width, height = image['width'], image['height']
        for annot in annots :
            if annot['image_id'] == id :
                category_id = annot['category_id']
                if category_id not in [0,1,7] :
                    x, y, w, h = annot['bbox']
                    x_center = (x + w / 2) / width
                    y_center = (y + h / 2) / height
                    w /= width
                    h /= height

                    # image copy to dst folder
                    image_org_path = os.path.join(org_images_folder, org_file_name)
                    image_dst_path = os.path.join(images_folder, org_file_name)
                    copy(image_org_path, image_dst_path)

                    # write to text file
                    yolo_ann = f"0 {x_center:.6f} {y_center:.6f} {w:.6f} {h:.6f}\n"
                    txt_file_path = os.path.join(labels_folder, f"{file_name}.txt")
                    with open(txt_file_path, 'a') as f:
                        f.write(yolo_ann)
```