

faster-r-cnn-epoch-2000

August 24, 2023

```
[ ]: !python -m pip install 'git+https://github.com/facebookresearch/detectron2.git'

Collecting git+https://github.com/facebookresearch/detectron2.git
  Cloning https://github.com/facebookresearch/detectron2.git to /tmp/pip-req-build-azvqnd2k
    Running command git clone --filter=blob:none --quiet
https://github.com/facebookresearch/detectron2.git /tmp/pip-req-build-azvqnd2k
      Resolved https://github.com/facebookresearch/detectron2.git to commit
a2e43eab54d28ffbd59f5e9b4e3193b82faeb70f
      Preparing metadata (setup.py) ... done
Requirement already satisfied: Pillow>=7.1 in /usr/local/lib/python3.10/dist-
packages (from detectron2==0.6) (8.4.0)
Requirement already satisfied: matplotlib in /usr/local/lib/python3.10/dist-
packages (from detectron2==0.6) (3.7.1)
Requirement already satisfied: pycocotools>=2.0.2 in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.0.6)
Requirement already satisfied: termcolor>=1.1 in /usr/local/lib/python3.10/dist-
packages (from detectron2==0.6) (2.3.0)
Collecting yacs>=0.1.8 (from detectron2==0.6)
  Downloading yacs-0.1.8-py3-none-any.whl (14 kB)
Requirement already satisfied: tabulate in /usr/local/lib/python3.10/dist-
packages (from detectron2==0.6) (0.9.0)
Requirement already satisfied: cloudpickle in /usr/local/lib/python3.10/dist-
packages (from detectron2==0.6) (2.2.1)
Requirement already satisfied: tqdm>4.29.0 in /usr/local/lib/python3.10/dist-
packages (from detectron2==0.6) (4.65.0)
Requirement already satisfied: tensorboard in /usr/local/lib/python3.10/dist-
packages (from detectron2==0.6) (2.12.3)
Collecting fvcore<0.1.6,>=0.1.5 (from detectron2==0.6)
  Downloading fvcore-0.1.5.post20221221.tar.gz (50 kB)
    50.2/50.2 kB
  1.1 MB/s eta 0:00:00
      Preparing metadata (setup.py) ... done
Collecting iopath<0.1.10,>=0.1.7 (from detectron2==0.6)
  Downloading iopath-0.1.9-py3-none-any.whl (27 kB)
Collecting omegaconf>=2.1 (from detectron2==0.6)
  Downloading omegaconf-2.3.0-py3-none-any.whl (79 kB)
    79.5/79.5 kB
```

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5.5 MB/s eta 0:00:00
Collecting hydra-core>=1.1 (from detectron2==0.6)
    Downloading hydra_core-1.3.2-py3-none-any.whl (154 kB)
        154.5/154.5 kB
15.2 MB/s eta 0:00:00
Collecting black (from detectron2==0.6)
    Downloading
black-23.7.0-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (1.7 MB)
        1.7/1.7 MB
59.1 MB/s eta 0:00:00
Requirement already satisfied: packaging in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (23.1)
Requirement already satisfied: numpy in /usr/local/lib/python3.10/dist-packages
(from fvcore<0.1.6,>=0.1.5->detectron2==0.6) (1.22.4)
Requirement already satisfied: pyyaml>=5.1 in /usr/local/lib/python3.10/dist-
packages (from fvcore<0.1.6,>=0.1.5->detectron2==0.6) (6.0.1)
Collecting antlr4-python3-runtime==4.9.* (from hydra-core>=1.1->detectron2==0.6)
    Downloading antlr4-python3-runtime-4.9.3.tar.gz (117 kB)
        117.0/117.0 kB
17.7 MB/s eta 0:00:00
    Preparing metadata (setup.py) ... done
Collecting portalocker (from iopath<0.1.10,>=0.1.7->detectron2==0.6)
    Downloading portalocker-2.7.0-py2.py3-none-any.whl (15 kB)
Requirement already satisfied: contourpy>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->detectron2==0.6)
(1.1.0)
Requirement already satisfied: cycler>=0.10 in /usr/local/lib/python3.10/dist-
packages (from matplotlib->detectron2==0.6) (0.11.0)
Requirement already satisfied: fonttools>=4.22.0 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->detectron2==0.6)
(4.41.0)
Requirement already satisfied: kiwisolver>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->detectron2==0.6)
(1.4.4)
Requirement already satisfied: pyparsing>=2.3.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->detectron2==0.6)
(3.1.0)
Requirement already satisfied: python-dateutil>=2.7 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->detectron2==0.6)
(2.8.2)
Requirement already satisfied: click>=8.0.0 in /usr/local/lib/python3.10/dist-
packages (from black->detectron2==0.6) (8.1.6)
Collecting mypy-extensions>=0.4.3 (from black->detectron2==0.6)
    Downloading mypy_extensions-1.0.0-py3-none-any.whl (4.7 kB)
Collecting pathspec>=0.9.0 (from black->detectron2==0.6)
    Downloading pathspec-0.11.1-py3-none-any.whl (29 kB)
Requirement already satisfied: platformdirs>=2 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6) (3.9.1)

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Requirement already satisfied: tomli>=1.1.0 in /usr/local/lib/python3.10/dist-
packages (from black->detectron2==0.6) (2.0.1)
Requirement already satisfied: absl-py>=0.4 in /usr/local/lib/python3.10/dist-
packages (from tensorboard->detectron2==0.6) (1.4.0)
Requirement already satisfied: grpcio>=1.48.2 in /usr/local/lib/python3.10/dist-
packages (from tensorboard->detectron2==0.6) (1.56.0)
Requirement already satisfied: google-auth<3,>=1.6.3 in
/usr/local/lib/python3.10/dist-packages (from tensorboard->detectron2==0.6)
(2.17.3)
Requirement already satisfied: google-auth-oauthlib<1.1,>=0.5 in
/usr/local/lib/python3.10/dist-packages (from tensorboard->detectron2==0.6)
(1.0.0)
Requirement already satisfied: markdown>=2.6.8 in
/usr/local/lib/python3.10/dist-packages (from tensorboard->detectron2==0.6)
(3.4.3)
Requirement already satisfied: protobuf>=3.19.6 in
/usr/local/lib/python3.10/dist-packages (from tensorboard->detectron2==0.6)
(3.20.3)
Requirement already satisfied: requests<3,>=2.21.0 in
/usr/local/lib/python3.10/dist-packages (from tensorboard->detectron2==0.6)
(2.27.1)
Requirement already satisfied: setuptools>=41.0.0 in
/usr/local/lib/python3.10/dist-packages (from tensorboard->detectron2==0.6)
(67.7.2)
Requirement already satisfied: tensorboard-data-server<0.8.0,>=0.7.0 in
/usr/local/lib/python3.10/dist-packages (from tensorboard->detectron2==0.6)
(0.7.1)
Requirement already satisfied: werkzeug>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from tensorboard->detectron2==0.6)
(2.3.6)
Requirement already satisfied: wheel>=0.26 in /usr/local/lib/python3.10/dist-
packages (from tensorboard->detectron2==0.6) (0.40.0)
Requirement already satisfied: cachetools<6.0,>=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from google-
auth<3,>=1.6.3->tensorboard->detectron2==0.6) (5.3.1)
Requirement already satisfied: pyasn1-modules>=0.2.1 in
/usr/local/lib/python3.10/dist-packages (from google-
auth<3,>=1.6.3->tensorboard->detectron2==0.6) (0.3.0)
Requirement already satisfied: six>=1.9.0 in /usr/local/lib/python3.10/dist-
packages (from google-auth<3,>=1.6.3->tensorboard->detectron2==0.6) (1.16.0)
Requirement already satisfied: rsa<5,>=3.1.4 in /usr/local/lib/python3.10/dist-
packages (from google-auth<3,>=1.6.3->tensorboard->detectron2==0.6) (4.9)
Requirement already satisfied: requests-oauthlib>=0.7.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth-
oauthlib<1.1,>=0.5->tensorboard->detectron2==0.6) (1.3.1)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from
requests<3,>=2.21.0->tensorboard->detectron2==0.6) (1.26.16)
```

```
Requirement already satisfied: certifi>=2017.4.17 in
/usr/local/lib/python3.10/dist-packages (from
requests<3,>=2.21.0->tensorboard->detectron2==0.6) (2023.5.7)
Requirement already satisfied: charset-normalizer~=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from
requests<3,>=2.21.0->tensorboard->detectron2==0.6) (2.0.12)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dist-
packages (from requests<3,>=2.21.0->tensorboard->detectron2==0.6) (3.4)
Requirement already satisfied: MarkupSafe>=2.1.1 in
/usr/local/lib/python3.10/dist-packages (from
werkzeug>=1.0.1->tensorboard->detectron2==0.6) (2.1.3)
Requirement already satisfied: pyasn1<0.6.0,>=0.4.6 in
/usr/local/lib/python3.10/dist-packages (from pyasn1-modules>=0.2.1->google-
auth<3,>=1.6.3->tensorboard->detectron2==0.6) (0.5.0)
Requirement already satisfied: oauthlib>=3.0.0 in
/usr/local/lib/python3.10/dist-packages (from requests-oauthlib>=0.7.0->google-
auth-oauthlib<1.1,>=0.5->tensorboard->detectron2==0.6) (3.2.2)
Building wheels for collected packages: detectron2, fvcore,
antlr4-python3-runtime
  Building wheel for detectron2 (setup.py) ... done
    Created wheel for detectron2:
filename=detectron2-0.6-cp310-cp310-linux_x86_64.whl size=6111766
sha256=2f1b7bc10f1697a9549bff725d11654b0fc5e0a07f06203b41ed8f5ff3855a9e
  Stored in directory: /tmp/pip-ephem-wheel-cache-
qqm1mfp1/wheels/47/e5/15/94c80df2ba85500c5d76599cc307c0a7079d0e221bb6fc4375
  Building wheel for fvcore (setup.py) ... done
    Created wheel for fvcore: filename=fvcore-0.1.5.post20221221-py3-none-any.whl
size=61405
sha256=266bab7527c4345665204d148af9b7877f55cb8cad9c2250d9ad34a0890f0532
  Stored in directory: /root/.cache/pip/wheels/01/c0/af/77c1cf53a1be9e42a52b48e5
af2169d40ec2e89f7362489dd0
  Building wheel for antlr4-python3-runtime (setup.py) ... done
    Created wheel for antlr4-python3-runtime:
filename=antlr4_python3_runtime-4.9.3-py3-none-any.whl size=144554
sha256=df5bb2c698ca289400fd30a7edd483c8d3d26fc6dae7a21f6546e01ff738033e
  Stored in directory: /root/.cache/pip/wheels/12/93/dd/1f6a127edc45659556564c57
30f6d4e300888f4bca2d4c5a88
Successfully built detectron2 fvcore antlr4-python3-runtime
Installing collected packages: antlr4-python3-runtime, yacs, portalocker,
pathspec, omegaconf, mypy-extensions, iopath, hydra-core, black, fvcore,
detectron2
Successfully installed antlr4-python3-runtime-4.9.3 black-23.7.0 detectron2-0.6
fvcore-0.1.5.post20221221 hydra-core-1.3.2 iopath-0.1.9 mypy-extensions-1.0.0
omegaconf-2.3.0 pathspec-0.11.1 portalocker-2.7.0 yacs-0.1.8
```

```
[ ]: !python -m pip install pyyaml==5.1
```

```
Collecting pyyaml==5.1
```

```

Downloading PyYAML-5.1.tar.gz (274 kB)
  274.2/274.2

kB 4.6 MB/s eta 0:00:00
  Preparing metadata (setup.py) ... done
Building wheels for collected packages: pyyaml
  Building wheel for pyyaml (setup.py) ... done
    Created wheel for pyyaml: filename=PyYAML-5.1-cp310-cp310-linux_x86_64.whl
size=44090
sha256=b311b1f4ddf117483a7daf69c189984f91e1d0cdd108ac47e4db4d86a5a2e639
  Stored in directory: /root/.cache/pip/wheels/70/83/31/975b737609aba39a4099d471
d5684141c1fdc3404f97e7f68a
Successfully built pyyaml
Installing collected packages: pyyaml
  Attempting uninstall: pyyaml
    Found existing installation: PyYAML 6.0.1
    Uninstalling PyYAML-6.0.1:
      Successfully uninstalled PyYAML-6.0.1
ERROR: pip's dependency resolver does not currently take into account all
the packages that are installed. This behaviour is the source of the following
dependency conflicts.

dask 2022.12.1 requires pyyaml>=5.3.1, but you have pyyaml 5.1 which is
incompatible.

flax 0.7.0 requires PyYAML>=5.4.1, but you have pyyaml 5.1 which is
incompatible.

Successfully installed pyyaml-5.1

```

```
[ ]: import torch, detectron2
!nvcc --version
TORCH_VERSION = ".".join(torch.__version__.split(".")[:2])
CUDA_VERSION = torch.__version__.split("+")[-1]
print("torch: ", TORCH_VERSION, "; cuda: ", CUDA_VERSION)
print("detectron2:", detectron2.__version__)
```

```

nvcc: NVIDIA (R) Cuda compiler driver
Copyright (c) 2005-2022 NVIDIA Corporation
Built on Wed_Sep_21_10:33:58_PDT_2022
Cuda compilation tools, release 11.8, V11.8.89
Build cuda_11.8.r11.8/compiler.31833905_0
torch: 2.0 ; cuda: cu118
detectron2: 0.6

```

```
[ ]: import detectron2
from detectron2.utils.logger import setup_logger
```

```
setup_logger()

# import some common libraries
import numpy as np
import cv2
import matplotlib.pyplot as plt

# import some common detectron2 utilities
from detectron2 import model_zoo
from detectron2.engine import DefaultPredictor
from detectron2.config import get_cfg
from detectron2.utils.visualizer import Visualizer
from detectron2.data import MetadataCatalog, DatasetCatalog
```

```
[ ]: from google.colab import drive
drive.mount('/content/drive')
```

Mounted at /content/drive

```
[ ]: DatasetCatalog.remove("p_train")
DatasetCatalog.remove("p_test")
```

```
[ ]: import os
import numpy as np
import json
from detectron2.structures import BoxMode

def get_r_dicts(directory):

    classes = ['unmelted particle', 'porosity', 'microcrack']
    dataset_dicts = []
    for idx, filename in enumerate([file for file in os.listdir(directory) if file.endswith('.json')]):
        json_file = os.path.join(directory, filename)
        with open(json_file) as f:
            img_anno = json.load(f)

        record = {}

        filename = os.path.join(directory, img_anno["imagePath"])

        record["file_name"] = filename
        record["image_id"] = idx
        record["height"] = 528
        record["width"] = 960

        annos = img_anno["shapes"]
```

```

    objs = []
    for anno in annos:
        px = [a[0] for a in anno['points']]
        py = [a[1] for a in anno['points']]
        poly = [(x, y) for x, y in zip(px, py)]
        poly = [p for x in poly for p in x]
        obj = {
            "bbox": [np.min(px), np.min(py), np.max(px), np.max(py)],
            "bbox_mode": BoxMode.XYXY_ABS,
            "segmentation": [poly],
            "category_id": classes.index(anno['label']),
            "iscrowd": 0
        }
        objs.append(obj)
    record["annotations"] = objs
    dataset_dicts.append(record)
return dataset_dicts

from detectron2.data import DatasetCatalog, MetadataCatalog
for d in ["train", "test"]:
    DatasetCatalog.register("p_" + d, lambda d=d: get_r_dicts('/content/drive/
↳MyDrive/Mahabub/' + d))
    MetadataCatalog.get("p_" + d).set(thing_classes=['unmelted particle', ↳
↳'porosity', 'microcrack'])
r_metadata = MetadataCatalog.get("p_train")

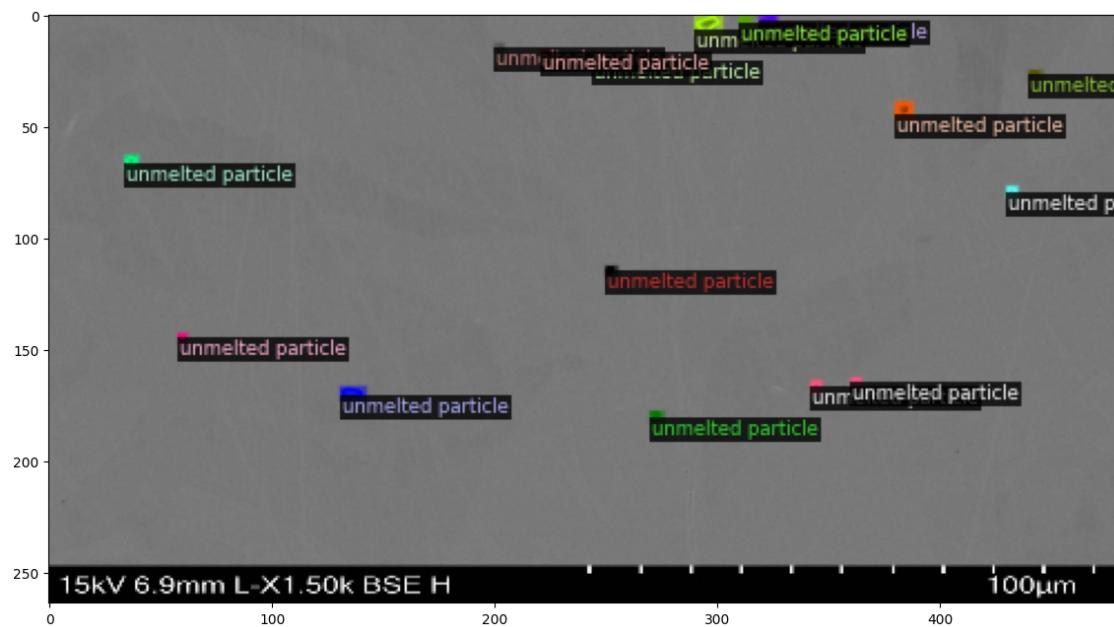
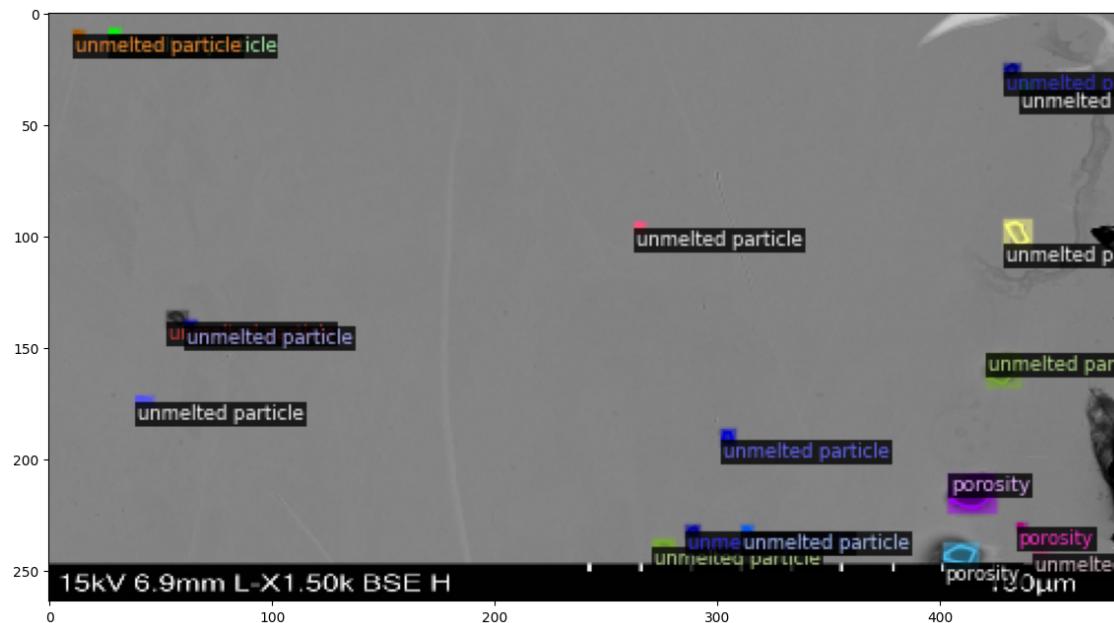
```

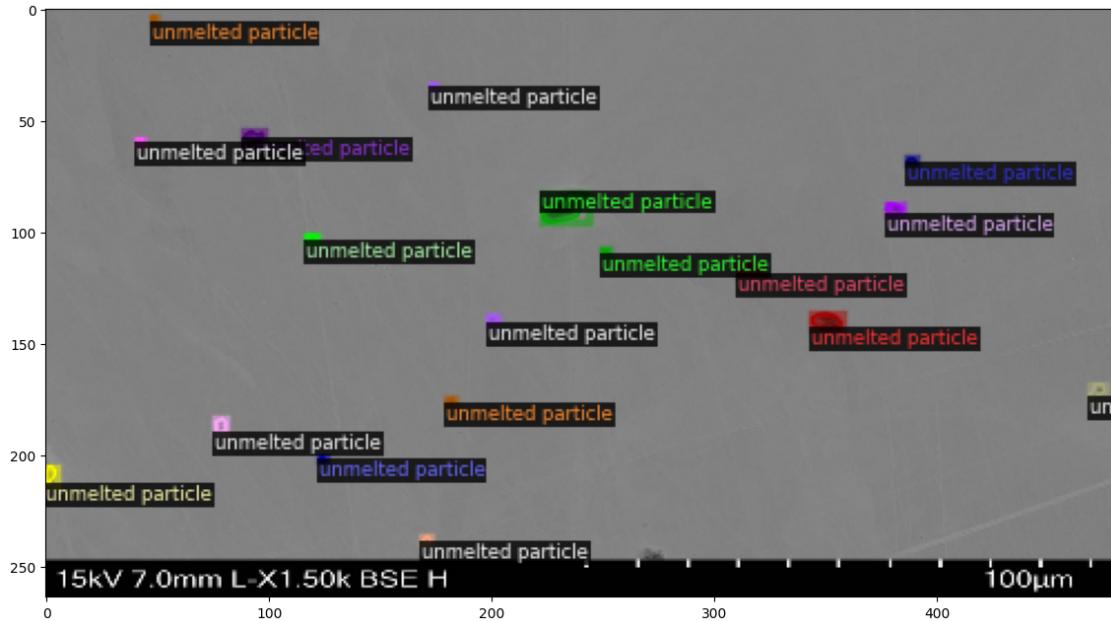
```

[ ]: import random

dataset_dicts = get_r_dicts("/content/drive/MyDrive/Mahabub/train")
for d in random.sample(dataset_dicts, 3):
    img = cv2.imread(d["file_name"])
    v = Visualizer(img[:, :, ::-1], metadata=r_metadata, scale=0.5)
    v = v.draw_dataset_dict(d)
    plt.figure(figsize = (14, 10))
    plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1], cv2.COLOR_BGR2RGB))
    plt.show()

```





```
[ ]: from detectron2.engine import DefaultTrainer
from detectron2.config import get_cfg
from detectron2 import model_zoo

cfg = get_cfg()
cfg.merge_from_file(model_zoo.get_config_file("COCO-Detection/
    ↪faster_rcnn_R_50_FPN_1x.yaml"))
cfg.DATASETS.TRAIN = ("p_train",)
cfg.DATASETS.TEST = ()
cfg.DATA_LOADER.NUM_WORKERS = 2
cfg.MODEL.WEIGHTS = model_zoo.get_checkpoint_url("COCO-Detection/
    ↪faster_rcnn_R_50_FPN_1x.yaml")
cfg.SOLVER.IMS_PER_BATCH = 2
cfg.SOLVER.BASE_LR = 0.00025
cfg.SOLVER.MAX_ITER = 2000
cfg.SOLVER.STEPS = []           # do not decay learning rate
cfg.MODEL.ROI_HEADS.NUM_CLASSES = 3

os.makedirs(cfg.OUTPUT_DIR, exist_ok=True)
trainer = DefaultTrainer(cfg)
trainer.resume_or_load(resume=False)
trainer.train()
```

```
[07/21 19:57:51 d2.engine.defaults]: Model:
GeneralizedRCNN(
  (backbone): FPN(
    (fpn_lateral2): Conv2d(256, 256, kernel_size=(1, 1), stride=(1, 1))
```

```
(fpn_output2): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
(fpn_lateral3): Conv2d(512, 256, kernel_size=(1, 1), stride=(1, 1))
(fpn_output3): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
(fpn_lateral4): Conv2d(1024, 256, kernel_size=(1, 1), stride=(1, 1))
(fpn_output4): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
(fpn_lateral5): Conv2d(2048, 256, kernel_size=(1, 1), stride=(1, 1))
(fpn_output5): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
(top_block): LastLevelMaxPool()
(bottom_up): ResNet(
(stem): BasicStem(
(conv1): Conv2d(
    3, 64, kernel_size=(7, 7), stride=(2, 2), padding=(3, 3), bias=False
    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
)
)
(res2): Sequential(
(0): BottleneckBlock(
(shortcut): Conv2d(
    64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
)
(conv1): Conv2d(
    64, 64, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
)
(conv2): Conv2d(
    64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
)
(conv3): Conv2d(
    64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
)
)
(1): BottleneckBlock(
(conv1): Conv2d(
    256, 64, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
)
(conv2): Conv2d(
    64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
)
```

```

)
(conv3): Conv2d(
    64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
)
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        256, 64, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
    )
    (conv2): Conv2d(
        64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
    )
    (conv3): Conv2d(
        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
)
)
(res3): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            256, 512, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
        (conv1): Conv2d(
            256, 128, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
        (conv2): Conv2d(
            128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
        (conv3): Conv2d(
            128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
    )
    (1): BottleneckBlock(
        (conv1): Conv2d(
            512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
        (conv2): Conv2d(

```

```

        128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
    (conv3): Conv2d(
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv2): Conv2d(
        128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv3): Conv2d(
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
(3): BottleneckBlock(
    (conv1): Conv2d(
        512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv2): Conv2d(
        128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv3): Conv2d(
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
)
(res4): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            512, 1024, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
        )
        (conv1): Conv2d(
            512, 256, kernel_size=(1, 1), stride=(2, 2), bias=False

```

```

        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(1): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(3): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(

```

```

        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
            (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
        )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(4): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(5): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
)
(res5): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            1024, 2048, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
        )
        (conv1): Conv2d(
            1024, 512, kernel_size=(1, 1), stride=(2, 2), bias=False

```

```

        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv2): Conv2d(
        512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv3): Conv2d(
        512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
    )
)
(1): BottleneckBlock(
    (conv1): Conv2d(
        2048, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv2): Conv2d(
        512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv3): Conv2d(
        512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        2048, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv2): Conv2d(
        512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv3): Conv2d(
        512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
    )
)
)
)
(proposal_generator): RPN(
    (rpn_head): StandardRPNHead(
        (conv): Conv2d(

```

```

        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1)
        (activation): ReLU()
    )
    (objectness_logits): Conv2d(256, 3, kernel_size=(1, 1), stride=(1, 1))
    (anchor_deltas): Conv2d(256, 12, kernel_size=(1, 1), stride=(1, 1))
)
(anchor_generator): DefaultAnchorGenerator(
    (cell_anchors): BufferList()
)
)
(roi_heads): StandardROIHeads(
    (box_pooler): ROIAlign(
        (level_poolers): ModuleList(
            (0): ROIAlign(output_size=(7, 7), spatial_scale=0.25, sampling_ratio=0,
aligned=True)
            (1): ROIAlign(output_size=(7, 7), spatial_scale=0.125, sampling_ratio=0,
aligned=True)
            (2): ROIAlign(output_size=(7, 7), spatial_scale=0.0625,
sampling_ratio=0, aligned=True)
            (3): ROIAlign(output_size=(7, 7), spatial_scale=0.03125,
sampling_ratio=0, aligned=True)
        )
    )
    (box_head): FastRCNNConvFCHead(
        (flatten): Flatten(start_dim=1, end_dim=-1)
        (fc1): Linear(in_features=12544, out_features=1024, bias=True)
        (fc_relu1): ReLU()
        (fc2): Linear(in_features=1024, out_features=1024, bias=True)
        (fc_relu2): ReLU()
    )
    (box_predictor): FastRCNNOutputLayers(
        (cls_score): Linear(in_features=1024, out_features=4, bias=True)
        (bbox_pred): Linear(in_features=1024, out_features=12, bias=True)
    )
)
)
)
[07/21 19:57:51 d2.data.build]: Removed 0 images with no usable annotations. 42
images left.
[07/21 19:57:51 d2.data.build]: Distribution of instances among all 3
categories:
| category | #instances | category | #instances | category |
#instances |
|:-----:|:-----:|:-----:|:-----:|:-----:|
-----|
| unmelted pa.. | 639 | porosity | 67 | microcrack | 9
|
| | | | | |
| |

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|      total      | 715          |          |          |          |
|
[07/21 19:57:51 d2.data.dataset_mapper]: [DatasetMapper] Augmentations used in
training: [ResizeShortestEdge(short_edge_length=(640, 672, 704, 736, 768, 800),
max_size=1333, sample_style='choice'), RandomFlip()]
[07/21 19:57:51 d2.data.build]: Using training sampler TrainingSampler
[07/21 19:57:51 d2.data.common]: Serializing the dataset using: <class
'detectron2.data.common._TorchSerializedList'>
[07/21 19:57:51 d2.data.common]: Serializing 42 elements to byte tensors and
concatenating them all ...
[07/21 19:57:51 d2.data.common]: Serialized dataset takes 0.16 MiB
[07/21 19:57:51 d2.checkpoint.detection_checkpoint]: [DetectionCheckpointer]
Loading from https://dl.fbaipublicfiles.com/detectron2/COCO-
Detection/faster_rcnn_R_50_FPN_1x/137257794/model_final_b275ba.pkl ...
model_final_b275ba.pkl: 167MB [00:00, 232MB/s]
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.cls_score.weight' to the model due to incompatible
shapes: (81, 1024) in the checkpoint but (4, 1024) in the model! You might want
to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.cls_score.bias' to the model due to incompatible
shapes: (81,) in the checkpoint but (4,) in the model! You might want to double
check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.bbox_pred.weight' to the model due to incompatible
shapes: (320, 1024) in the checkpoint but (12, 1024) in the model! You might
want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.bbox_pred.bias' to the model due to incompatible
shapes: (320,) in the checkpoint but (12,) in the model! You might want to
double check if this is expected.
WARNING:fvcore.common.checkpoint:Some model parameters or buffers are not found
in the checkpoint:
roi_heads.box_predictor.bbox_pred.{bias, weight}
roi_heads.box_predictor.cls_score.{bias, weight}

[07/21 19:57:52 d2.engine.train_loop]: Starting training from iteration 0
/usr/local/lib/python3.10/dist-packages/torch/functional.py:504: UserWarning:
torch.meshgrid: in an upcoming release, it will be required to pass the indexing
argument. (Triggered internally at
./aten/src/ATen/native/TensorShape.cpp:3483.)
    return _VF.meshgrid(tensors, **kwargs) # type: ignore[attr-defined]

[07/21 19:58:14 d2.utils.events]: eta: 0:29:36 iter: 19 total_loss: 3.389
loss_cls: 1.378 loss_box_reg: 0.6909 loss_rpn_cls: 1.131 loss_rpn_loc: 0.2496
time: 0.8888 last_time: 1.0795 data_time: 0.4448 last_data_time: 0.6154 lr:
4.9953e-06 max_mem: 2457M
[07/21 19:58:26 d2.utils.events]: eta: 0:16:37 iter: 39 total_loss: 2.535

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loss_cls: 1.298 loss_box_reg: 0.7093 loss_rpn_cls: 0.3476 loss_rpn_loc:  
0.2334 time: 0.6664 last_time: 0.4746 data_time: 0.0137 last_data_time:  
0.0292 lr: 9.9902e-06 max_mem: 2458M  
[07/21 19:58:36 d2.utils.events]: eta: 0:15:34 iter: 59 total_loss: 2.092  
loss_cls: 1.105 loss_box_reg: 0.7166 loss_rpn_cls: 0.0763 loss_rpn_loc:  
0.2178 time: 0.5983 last_time: 0.4811 data_time: 0.0109 last_data_time:  
0.0079 lr: 1.4985e-05 max_mem: 2458M  
[07/21 19:58:45 d2.utils.events]: eta: 0:15:25 iter: 79 total_loss: 1.895  
loss_cls: 0.8734 loss_box_reg: 0.6645 loss_rpn_cls: 0.06235 loss_rpn_loc:  
0.2248 time: 0.5659 last_time: 0.4183 data_time: 0.0134 last_data_time:  
0.0077 lr: 1.998e-05 max_mem: 2458M  
[07/21 19:58:55 d2.utils.events]: eta: 0:15:20 iter: 99 total_loss: 1.602  
loss_cls: 0.7071 loss_box_reg: 0.6546 loss_rpn_cls: 0.04351 loss_rpn_loc:  
0.2055 time: 0.5501 last_time: 0.5108 data_time: 0.0093 last_data_time:  
0.0103 lr: 2.4975e-05 max_mem: 2458M  
[07/21 19:59:04 d2.utils.events]: eta: 0:15:11 iter: 119 total_loss: 1.433  
loss_cls: 0.5588 loss_box_reg: 0.6299 loss_rpn_cls: 0.05256 loss_rpn_loc:  
0.2183 time: 0.5374 last_time: 0.4490 data_time: 0.0108 last_data_time:  
0.0053 lr: 2.997e-05 max_mem: 2458M  
[07/21 19:59:14 d2.utils.events]: eta: 0:15:04 iter: 139 total_loss: 1.356  
loss_cls: 0.494 loss_box_reg: 0.5995 loss_rpn_cls: 0.04068 loss_rpn_loc:  
0.2088 time: 0.5315 last_time: 0.5058 data_time: 0.0124 last_data_time:  
0.0053 lr: 3.4965e-05 max_mem: 2458M  
[07/21 19:59:24 d2.utils.events]: eta: 0:14:57 iter: 159 total_loss: 1.348  
loss_cls: 0.4683 loss_box_reg: 0.5806 loss_rpn_cls: 0.04593 loss_rpn_loc:  
0.2192 time: 0.5273 last_time: 0.5185 data_time: 0.0181 last_data_time:  
0.0091 lr: 3.996e-05 max_mem: 2458M  
[07/21 19:59:34 d2.utils.events]: eta: 0:14:49 iter: 179 total_loss: 1.289  
loss_cls: 0.4235 loss_box_reg: 0.62 loss_rpn_cls: 0.03602 loss_rpn_loc:  
0.1973 time: 0.5230 last_time: 0.5047 data_time: 0.0092 last_data_time:  
0.0055 lr: 4.4955e-05 max_mem: 2458M  
[07/21 19:59:44 d2.utils.events]: eta: 0:14:47 iter: 199 total_loss: 1.192  
loss_cls: 0.3894 loss_box_reg: 0.5594 loss_rpn_cls: 0.04299 loss_rpn_loc:  
0.2108 time: 0.5211 last_time: 0.5068 data_time: 0.0146 last_data_time:  
0.0067 lr: 4.995e-05 max_mem: 2459M  
[07/21 19:59:54 d2.utils.events]: eta: 0:14:44 iter: 219 total_loss: 1.207  
loss_cls: 0.3596 loss_box_reg: 0.6116 loss_rpn_cls: 0.04293 loss_rpn_loc:  
0.2037 time: 0.5192 last_time: 0.4792 data_time: 0.0108 last_data_time:  
0.0236 lr: 5.4945e-05 max_mem: 2459M  
[07/21 20:00:04 d2.utils.events]: eta: 0:14:35 iter: 239 total_loss: 1.152  
loss_cls: 0.3379 loss_box_reg: 0.5694 loss_rpn_cls: 0.03014 loss_rpn_loc:  
0.206 time: 0.5165 last_time: 0.4752 data_time: 0.0112 last_data_time:  
0.0256 lr: 5.994e-05 max_mem: 2459M  
[07/21 20:00:14 d2.utils.events]: eta: 0:14:25 iter: 259 total_loss: 1.075  
loss_cls: 0.287 loss_box_reg: 0.5379 loss_rpn_cls: 0.03224 loss_rpn_loc:  
0.1983 time: 0.5151 last_time: 0.5000 data_time: 0.0125 last_data_time:  
0.0061 lr: 6.4935e-05 max_mem: 2459M  
[07/21 20:00:24 d2.utils.events]: eta: 0:14:16 iter: 279 total_loss: 1.152
```

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loss_cls: 0.3071 loss_box_reg: 0.5656 loss_rpn_cls: 0.04731 loss_rpn_loc:  
0.2091 time: 0.5132 last_time: 0.4449 data_time: 0.0099 last_data_time:  
0.0076 lr: 6.993e-05 max_mem: 2459M  
[07/21 20:00:33 d2.utils.events]: eta: 0:14:07 iter: 299 total_loss: 1.093  
loss_cls: 0.2917 loss_box_reg: 0.5664 loss_rpn_cls: 0.0315 loss_rpn_loc:  
0.2058 time: 0.5114 last_time: 0.5012 data_time: 0.0092 last_data_time:  
0.0071 lr: 7.4925e-05 max_mem: 2459M  
[07/21 20:00:43 d2.utils.events]: eta: 0:13:57 iter: 319 total_loss: 1.096  
loss_cls: 0.2748 loss_box_reg: 0.5925 loss_rpn_cls: 0.03856 loss_rpn_loc:  
0.2089 time: 0.5105 last_time: 0.4488 data_time: 0.0151 last_data_time:  
0.0218 lr: 7.992e-05 max_mem: 2459M  
[07/21 20:00:53 d2.utils.events]: eta: 0:13:49 iter: 339 total_loss: 0.9908  
loss_cls: 0.253 loss_box_reg: 0.5075 loss_rpn_cls: 0.0314 loss_rpn_loc:  
0.2039 time: 0.5099 last_time: 0.4945 data_time: 0.0126 last_data_time:  
0.0053 lr: 8.4915e-05 max_mem: 2459M  
[07/21 20:01:03 d2.utils.events]: eta: 0:13:40 iter: 359 total_loss: 1.047  
loss_cls: 0.2426 loss_box_reg: 0.5547 loss_rpn_cls: 0.03701 loss_rpn_loc:  
0.21 time: 0.5083 last_time: 0.5136 data_time: 0.0076 last_data_time:  
0.0065 lr: 8.991e-05 max_mem: 2459M  
[07/21 20:01:13 d2.utils.events]: eta: 0:13:30 iter: 379 total_loss: 0.9958  
loss_cls: 0.2408 loss_box_reg: 0.5071 loss_rpn_cls: 0.04039 loss_rpn_loc:  
0.2012 time: 0.5079 last_time: 0.4619 data_time: 0.0121 last_data_time:  
0.0051 lr: 9.4905e-05 max_mem: 2459M  
[07/21 20:01:23 d2.utils.events]: eta: 0:13:21 iter: 399 total_loss: 0.9962  
loss_cls: 0.2342 loss_box_reg: 0.4927 loss_rpn_cls: 0.03574 loss_rpn_loc:  
0.2097 time: 0.5072 last_time: 0.5011 data_time: 0.0115 last_data_time:  
0.0065 lr: 9.99e-05 max_mem: 2459M  
[07/21 20:01:33 d2.utils.events]: eta: 0:13:12 iter: 419 total_loss: 1.036  
loss_cls: 0.2455 loss_box_reg: 0.5391 loss_rpn_cls: 0.03309 loss_rpn_loc:  
0.2028 time: 0.5068 last_time: 0.4849 data_time: 0.0073 last_data_time:  
0.0278 lr: 0.0001049 max_mem: 2459M  
[07/21 20:01:43 d2.utils.events]: eta: 0:13:02 iter: 439 total_loss: 1.006  
loss_cls: 0.2414 loss_box_reg: 0.5405 loss_rpn_cls: 0.03749 loss_rpn_loc:  
0.1933 time: 0.5065 last_time: 0.5088 data_time: 0.0114 last_data_time:  
0.0070 lr: 0.00010989 max_mem: 2459M  
[07/21 20:01:53 d2.utils.events]: eta: 0:12:53 iter: 459 total_loss: 0.9855  
loss_cls: 0.2145 loss_box_reg: 0.512 loss_rpn_cls: 0.03028 loss_rpn_loc:  
0.2053 time: 0.5067 last_time: 0.5127 data_time: 0.0114 last_data_time:  
0.0164 lr: 0.00011489 max_mem: 2459M  
[07/21 20:02:03 d2.utils.events]: eta: 0:12:43 iter: 479 total_loss: 0.9543  
loss_cls: 0.2324 loss_box_reg: 0.5102 loss_rpn_cls: 0.0358 loss_rpn_loc:  
0.1961 time: 0.5066 last_time: 0.4731 data_time: 0.0144 last_data_time:  
0.0262 lr: 0.00011988 max_mem: 2459M  
[07/21 20:02:13 d2.utils.events]: eta: 0:12:34 iter: 499 total_loss: 0.9725  
loss_cls: 0.2158 loss_box_reg: 0.5117 loss_rpn_cls: 0.03729 loss_rpn_loc:  
0.2013 time: 0.5064 last_time: 0.5068 data_time: 0.0120 last_data_time:  
0.0077 lr: 0.00012488 max_mem: 2459M  
[07/21 20:02:23 d2.utils.events]: eta: 0:12:24 iter: 519 total_loss: 0.9803
```

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loss_cls: 0.2289 loss_box_reg: 0.5081 loss_rpn_cls: 0.03088 loss_rpn_loc:  
0.1876 time: 0.5063 last_time: 0.5089 data_time: 0.0140 last_data_time:  
0.0057 lr: 0.00012987 max_mem: 2459M  
[07/21 20:02:33 d2.utils.events]: eta: 0:12:14 iter: 539 total_loss: 0.9504  
loss_cls: 0.2239 loss_box_reg: 0.4858 loss_rpn_cls: 0.03621 loss_rpn_loc:  
0.2079 time: 0.5060 last_time: 0.5335 data_time: 0.0092 last_data_time:  
0.0188 lr: 0.00013487 max_mem: 2459M  
[07/21 20:02:43 d2.utils.events]: eta: 0:12:05 iter: 559 total_loss: 0.8955  
loss_cls: 0.2055 loss_box_reg: 0.477 loss_rpn_cls: 0.02882 loss_rpn_loc:  
0.1989 time: 0.5058 last_time: 0.5040 data_time: 0.0089 last_data_time:  
0.0071 lr: 0.00013986 max_mem: 2459M  
[07/21 20:02:53 d2.utils.events]: eta: 0:11:55 iter: 579 total_loss: 0.8896  
loss_cls: 0.2104 loss_box_reg: 0.4513 loss_rpn_cls: 0.02985 loss_rpn_loc:  
0.1875 time: 0.5056 last_time: 0.4410 data_time: 0.0144 last_data_time:  
0.0068 lr: 0.00014486 max_mem: 2459M  
[07/21 20:03:03 d2.utils.events]: eta: 0:11:45 iter: 599 total_loss: 0.9611  
loss_cls: 0.2127 loss_box_reg: 0.5116 loss_rpn_cls: 0.02654 loss_rpn_loc:  
0.1916 time: 0.5053 last_time: 0.5195 data_time: 0.0077 last_data_time:  
0.0058 lr: 0.00014985 max_mem: 2459M  
[07/21 20:03:13 d2.utils.events]: eta: 0:11:35 iter: 619 total_loss: 0.9528  
loss_cls: 0.2105 loss_box_reg: 0.483 loss_rpn_cls: 0.03678 loss_rpn_loc:  
0.2047 time: 0.5051 last_time: 0.5066 data_time: 0.0083 last_data_time:  
0.0062 lr: 0.00015485 max_mem: 2459M  
[07/21 20:03:23 d2.utils.events]: eta: 0:11:25 iter: 639 total_loss: 0.8813  
loss_cls: 0.2137 loss_box_reg: 0.4519 loss_rpn_cls: 0.02882 loss_rpn_loc:  
0.2017 time: 0.5049 last_time: 0.5086 data_time: 0.0134 last_data_time:  
0.0075 lr: 0.00015984 max_mem: 2459M  
[07/21 20:03:34 d2.utils.events]: eta: 0:11:15 iter: 659 total_loss: 0.9292  
loss_cls: 0.2066 loss_box_reg: 0.5052 loss_rpn_cls: 0.02367 loss_rpn_loc:  
0.1932 time: 0.5050 last_time: 0.5118 data_time: 0.0132 last_data_time:  
0.0070 lr: 0.00016484 max_mem: 2459M  
[07/21 20:03:43 d2.utils.events]: eta: 0:11:05 iter: 679 total_loss: 0.9448  
loss_cls: 0.2076 loss_box_reg: 0.4758 loss_rpn_cls: 0.02427 loss_rpn_loc:  
0.2133 time: 0.5045 last_time: 0.4741 data_time: 0.0079 last_data_time:  
0.0066 lr: 0.00016983 max_mem: 2459M  
[07/21 20:03:53 d2.utils.events]: eta: 0:10:55 iter: 699 total_loss: 0.8655  
loss_cls: 0.186 loss_box_reg: 0.4489 loss_rpn_cls: 0.02518 loss_rpn_loc:  
0.2043 time: 0.5044 last_time: 0.5073 data_time: 0.0154 last_data_time:  
0.0122 lr: 0.00017483 max_mem: 2459M  
[07/21 20:04:03 d2.utils.events]: eta: 0:10:45 iter: 719 total_loss: 0.9025  
loss_cls: 0.2077 loss_box_reg: 0.4817 loss_rpn_cls: 0.03218 loss_rpn_loc:  
0.1866 time: 0.5042 last_time: 0.5073 data_time: 0.0145 last_data_time:  
0.0049 lr: 0.00017982 max_mem: 2459M  
[07/21 20:04:13 d2.utils.events]: eta: 0:10:35 iter: 739 total_loss: 0.947  
loss_cls: 0.2041 loss_box_reg: 0.4736 loss_rpn_cls: 0.03904 loss_rpn_loc:  
0.2023 time: 0.5037 last_time: 0.5108 data_time: 0.0074 last_data_time:  
0.0086 lr: 0.00018482 max_mem: 2459M  
[07/21 20:04:23 d2.utils.events]: eta: 0:10:25 iter: 759 total_loss: 0.9057
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loss_cls: 0.2079 loss_box_reg: 0.4759 loss_rpn_cls: 0.02757 loss_rpn_loc:  
0.193 time: 0.5038 last_time: 0.5076 data_time: 0.0140 last_data_time:  
0.0051 lr: 0.00018981 max_mem: 2459M  
[07/21 20:04:33 d2.utils.events]: eta: 0:10:15 iter: 779 total_loss: 0.8695  
loss_cls: 0.1818 loss_box_reg: 0.4572 loss_rpn_cls: 0.03313 loss_rpn_loc:  
0.191 time: 0.5038 last_time: 0.5031 data_time: 0.0158 last_data_time:  
0.0056 lr: 0.00019481 max_mem: 2459M  
[07/21 20:04:43 d2.utils.events]: eta: 0:10:05 iter: 799 total_loss: 0.8578  
loss_cls: 0.1963 loss_box_reg: 0.466 loss_rpn_cls: 0.02887 loss_rpn_loc:  
0.1998 time: 0.5035 last_time: 0.5275 data_time: 0.0106 last_data_time:  
0.0114 lr: 0.0001998 max_mem: 2459M  
[07/21 20:04:53 d2.utils.events]: eta: 0:09:55 iter: 819 total_loss: 0.8745  
loss_cls: 0.1988 loss_box_reg: 0.4783 loss_rpn_cls: 0.03046 loss_rpn_loc:  
0.1895 time: 0.5036 last_time: 0.5123 data_time: 0.0159 last_data_time:  
0.0162 lr: 0.0002048 max_mem: 2459M  
[07/21 20:05:03 d2.utils.events]: eta: 0:09:45 iter: 839 total_loss: 0.844  
loss_cls: 0.1947 loss_box_reg: 0.4445 loss_rpn_cls: 0.02725 loss_rpn_loc:  
0.1991 time: 0.5037 last_time: 0.5273 data_time: 0.0113 last_data_time:  
0.0253 lr: 0.00020979 max_mem: 2459M  
[07/21 20:05:13 d2.utils.events]: eta: 0:09:35 iter: 859 total_loss: 0.8837  
loss_cls: 0.1885 loss_box_reg: 0.4493 loss_rpn_cls: 0.02789 loss_rpn_loc:  
0.2089 time: 0.5036 last_time: 0.5082 data_time: 0.0080 last_data_time:  
0.0089 lr: 0.00021479 max_mem: 2459M  
[07/21 20:05:24 d2.utils.events]: eta: 0:09:25 iter: 879 total_loss: 0.8751  
loss_cls: 0.1843 loss_box_reg: 0.4445 loss_rpn_cls: 0.02054 loss_rpn_loc:  
0.1878 time: 0.5036 last_time: 0.5031 data_time: 0.0130 last_data_time:  
0.0061 lr: 0.00021978 max_mem: 2460M  
[07/21 20:05:34 d2.utils.events]: eta: 0:09:15 iter: 899 total_loss: 0.8943  
loss_cls: 0.1828 loss_box_reg: 0.4621 loss_rpn_cls: 0.02659 loss_rpn_loc:  
0.2077 time: 0.5035 last_time: 0.5087 data_time: 0.0102 last_data_time:  
0.0076 lr: 0.00022478 max_mem: 2460M  
[07/21 20:05:44 d2.utils.events]: eta: 0:09:05 iter: 919 total_loss: 0.8532  
loss_cls: 0.1844 loss_box_reg: 0.4622 loss_rpn_cls: 0.02866 loss_rpn_loc:  
0.1771 time: 0.5034 last_time: 0.4818 data_time: 0.0092 last_data_time:  
0.0091 lr: 0.00022977 max_mem: 2460M  
[07/21 20:05:54 d2.utils.events]: eta: 0:08:55 iter: 939 total_loss: 0.8615  
loss_cls: 0.1807 loss_box_reg: 0.4722 loss_rpn_cls: 0.02832 loss_rpn_loc:  
0.1889 time: 0.5035 last_time: 0.5065 data_time: 0.0149 last_data_time:  
0.0089 lr: 0.00023477 max_mem: 2460M  
[07/21 20:06:04 d2.utils.events]: eta: 0:08:45 iter: 959 total_loss: 0.8227  
loss_cls: 0.1846 loss_box_reg: 0.4388 loss_rpn_cls: 0.02451 loss_rpn_loc:  
0.1831 time: 0.5033 last_time: 0.5119 data_time: 0.0112 last_data_time:  
0.0099 lr: 0.00023976 max_mem: 2460M  
[07/21 20:06:13 d2.utils.events]: eta: 0:08:35 iter: 979 total_loss: 0.8871  
loss_cls: 0.1893 loss_box_reg: 0.4717 loss_rpn_cls: 0.02605 loss_rpn_loc:  
0.1923 time: 0.5031 last_time: 0.4737 data_time: 0.0094 last_data_time:  
0.0288 lr: 0.00024476 max_mem: 2460M  
[07/21 20:06:23 d2.utils.events]: eta: 0:08:24 iter: 999 total_loss: 0.8739
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loss_cls: 0.1889 loss_box_reg: 0.448 loss_rpn_cls: 0.03051 loss_rpn_loc:  
0.1904 time: 0.5028 last_time: 0.5041 data_time: 0.0082 last_data_time:  
0.0069 lr: 0.00024975 max_mem: 2460M  
[07/21 20:06:33 d2.utils.events]: eta: 0:08:14 iter: 1019 total_loss: 0.8539  
loss_cls: 0.1777 loss_box_reg: 0.451 loss_rpn_cls: 0.02414 loss_rpn_loc:  
0.1775 time: 0.5028 last_time: 0.4600 data_time: 0.0092 last_data_time:  
0.0053 lr: 0.00025 max_mem: 2460M  
[07/21 20:06:43 d2.utils.events]: eta: 0:08:04 iter: 1039 total_loss: 0.8387  
loss_cls: 0.1638 loss_box_reg: 0.4521 loss_rpn_cls: 0.02573 loss_rpn_loc:  
0.1895 time: 0.5026 last_time: 0.5296 data_time: 0.0109 last_data_time:  
0.0287 lr: 0.00025 max_mem: 2460M  
[07/21 20:06:53 d2.utils.events]: eta: 0:07:54 iter: 1059 total_loss: 0.8994  
loss_cls: 0.183 loss_box_reg: 0.489 loss_rpn_cls: 0.03153 loss_rpn_loc:  
0.1864 time: 0.5024 last_time: 0.4431 data_time: 0.0119 last_data_time:  
0.0074 lr: 0.00025 max_mem: 2460M  
[07/21 20:07:03 d2.utils.events]: eta: 0:07:44 iter: 1079 total_loss: 0.8499  
loss_cls: 0.1801 loss_box_reg: 0.4489 loss_rpn_cls: 0.02652 loss_rpn_loc:  
0.1963 time: 0.5022 last_time: 0.4562 data_time: 0.0101 last_data_time:  
0.0055 lr: 0.00025 max_mem: 2460M  
[07/21 20:07:13 d2.utils.events]: eta: 0:07:34 iter: 1099 total_loss: 0.8412  
loss_cls: 0.1664 loss_box_reg: 0.45 loss_rpn_cls: 0.02814 loss_rpn_loc:  
0.1865 time: 0.5021 last_time: 0.5365 data_time: 0.0117 last_data_time:  
0.0314 lr: 0.00025 max_mem: 2460M  
[07/21 20:07:23 d2.utils.events]: eta: 0:07:24 iter: 1119 total_loss: 0.8384  
loss_cls: 0.1752 loss_box_reg: 0.4484 loss_rpn_cls: 0.02736 loss_rpn_loc:  
0.1848 time: 0.5019 last_time: 0.5055 data_time: 0.0115 last_data_time:  
0.0057 lr: 0.00025 max_mem: 2460M  
[07/21 20:07:33 d2.utils.events]: eta: 0:07:14 iter: 1139 total_loss: 0.8542  
loss_cls: 0.1809 loss_box_reg: 0.434 loss_rpn_cls: 0.02298 loss_rpn_loc:  
0.1866 time: 0.5022 last_time: 0.5104 data_time: 0.0162 last_data_time:  
0.0080 lr: 0.00025 max_mem: 2460M  
[07/21 20:07:43 d2.utils.events]: eta: 0:07:04 iter: 1159 total_loss: 0.822  
loss_cls: 0.1657 loss_box_reg: 0.4536 loss_rpn_cls: 0.02117 loss_rpn_loc:  
0.1924 time: 0.5021 last_time: 0.5162 data_time: 0.0084 last_data_time:  
0.0053 lr: 0.00025 max_mem: 2460M  
[07/21 20:07:53 d2.utils.events]: eta: 0:06:54 iter: 1179 total_loss: 0.842  
loss_cls: 0.1712 loss_box_reg: 0.4564 loss_rpn_cls: 0.02899 loss_rpn_loc:  
0.1857 time: 0.5018 last_time: 0.5093 data_time: 0.0089 last_data_time:  
0.0053 lr: 0.00025 max_mem: 2460M  
[07/21 20:08:03 d2.utils.events]: eta: 0:06:44 iter: 1199 total_loss: 0.823  
loss_cls: 0.1617 loss_box_reg: 0.4418 loss_rpn_cls: 0.02474 loss_rpn_loc:  
0.1833 time: 0.5018 last_time: 0.5068 data_time: 0.0121 last_data_time:  
0.0062 lr: 0.00025 max_mem: 2460M  
[07/21 20:08:13 d2.utils.events]: eta: 0:06:34 iter: 1219 total_loss: 0.8018  
loss_cls: 0.1527 loss_box_reg: 0.427 loss_rpn_cls: 0.0284 loss_rpn_loc:  
0.1824 time: 0.5016 last_time: 0.5200 data_time: 0.0101 last_data_time:  
0.0223 lr: 0.00025 max_mem: 2460M  
[07/21 20:08:23 d2.utils.events]: eta: 0:06:24 iter: 1239 total_loss: 0.8346
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loss_cls: 0.1704 loss_box_reg: 0.4276 loss_rpn_cls: 0.0291 loss_rpn_loc:  
0.1897 time: 0.5016 last_time: 0.5065 data_time: 0.0092 last_data_time:  
0.0063 lr: 0.00025 max_mem: 2460M  
[07/21 20:08:33 d2.utils.events]: eta: 0:06:14 iter: 1259 total_loss: 0.8039  
loss_cls: 0.1643 loss_box_reg: 0.4036 loss_rpn_cls: 0.02778 loss_rpn_loc:  
0.1863 time: 0.5015 last_time: 0.5149 data_time: 0.0142 last_data_time:  
0.0067 lr: 0.00025 max_mem: 2460M  
[07/21 20:08:43 d2.utils.events]: eta: 0:06:04 iter: 1279 total_loss: 0.848  
loss_cls: 0.1699 loss_box_reg: 0.4594 loss_rpn_cls: 0.03087 loss_rpn_loc:  
0.1718 time: 0.5016 last_time: 0.5227 data_time: 0.0159 last_data_time:  
0.0188 lr: 0.00025 max_mem: 2460M  
[07/21 20:08:53 d2.utils.events]: eta: 0:05:54 iter: 1299 total_loss: 0.8093  
loss_cls: 0.1674 loss_box_reg: 0.4326 loss_rpn_cls: 0.03009 loss_rpn_loc:  
0.1839 time: 0.5014 last_time: 0.5041 data_time: 0.0086 last_data_time:  
0.0054 lr: 0.00025 max_mem: 2460M  
[07/21 20:09:03 d2.utils.events]: eta: 0:05:44 iter: 1319 total_loss: 0.7906  
loss_cls: 0.1554 loss_box_reg: 0.4057 loss_rpn_cls: 0.02665 loss_rpn_loc:  
0.1795 time: 0.5014 last_time: 0.5140 data_time: 0.0145 last_data_time:  
0.0111 lr: 0.00025 max_mem: 2460M  
[07/21 20:09:12 d2.utils.events]: eta: 0:05:33 iter: 1339 total_loss: 0.8777  
loss_cls: 0.1653 loss_box_reg: 0.4539 loss_rpn_cls: 0.02828 loss_rpn_loc:  
0.1959 time: 0.5011 last_time: 0.4939 data_time: 0.0111 last_data_time:  
0.0252 lr: 0.00025 max_mem: 2460M  
[07/21 20:09:22 d2.utils.events]: eta: 0:05:23 iter: 1359 total_loss: 0.8369  
loss_cls: 0.1623 loss_box_reg: 0.4108 loss_rpn_cls: 0.03059 loss_rpn_loc:  
0.1785 time: 0.5011 last_time: 0.5114 data_time: 0.0097 last_data_time:  
0.0099 lr: 0.00025 max_mem: 2460M  
[07/21 20:09:32 d2.utils.events]: eta: 0:05:13 iter: 1379 total_loss: 0.8035  
loss_cls: 0.1546 loss_box_reg: 0.4378 loss_rpn_cls: 0.02434 loss_rpn_loc:  
0.182 time: 0.5013 last_time: 0.5139 data_time: 0.0130 last_data_time:  
0.0091 lr: 0.00025 max_mem: 2460M  
[07/21 20:09:43 d2.utils.events]: eta: 0:05:03 iter: 1399 total_loss: 0.8001  
loss_cls: 0.1495 loss_box_reg: 0.4338 loss_rpn_cls: 0.02526 loss_rpn_loc:  
0.1834 time: 0.5013 last_time: 0.5042 data_time: 0.0096 last_data_time:  
0.0063 lr: 0.00025 max_mem: 2460M  
[07/21 20:09:52 d2.utils.events]: eta: 0:04:53 iter: 1419 total_loss: 0.7755  
loss_cls: 0.1522 loss_box_reg: 0.4103 loss_rpn_cls: 0.02737 loss_rpn_loc:  
0.1758 time: 0.5012 last_time: 0.5201 data_time: 0.0092 last_data_time:  
0.0076 lr: 0.00025 max_mem: 2460M  
[07/21 20:10:03 d2.utils.events]: eta: 0:04:43 iter: 1439 total_loss: 0.7634  
loss_cls: 0.1504 loss_box_reg: 0.4075 loss_rpn_cls: 0.02651 loss_rpn_loc:  
0.1745 time: 0.5012 last_time: 0.5162 data_time: 0.0129 last_data_time:  
0.0071 lr: 0.00025 max_mem: 2460M  
[07/21 20:10:13 d2.utils.events]: eta: 0:04:33 iter: 1459 total_loss: 0.8033  
loss_cls: 0.1515 loss_box_reg: 0.4205 loss_rpn_cls: 0.03192 loss_rpn_loc:  
0.1862 time: 0.5014 last_time: 0.5237 data_time: 0.0132 last_data_time:  
0.0070 lr: 0.00025 max_mem: 2460M  
[07/21 20:10:23 d2.utils.events]: eta: 0:04:23 iter: 1479 total_loss: 0.784
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loss_cls: 0.1596 loss_box_reg: 0.4087 loss_rpn_cls: 0.02442 loss_rpn_loc:  
0.1661 time: 0.5013 last_time: 0.5078 data_time: 0.0083 last_data_time:  
0.0078 lr: 0.00025 max_mem: 2460M  
[07/21 20:10:33 d2.utils.events]: eta: 0:04:12 iter: 1499 total_loss: 0.8177  
loss_cls: 0.1565 loss_box_reg: 0.4394 loss_rpn_cls: 0.0264 loss_rpn_loc:  
0.186 time: 0.5013 last_time: 0.4592 data_time: 0.0150 last_data_time:  
0.0062 lr: 0.00025 max_mem: 2460M  
[07/21 20:10:43 d2.utils.events]: eta: 0:04:02 iter: 1519 total_loss: 0.7781  
loss_cls: 0.1542 loss_box_reg: 0.4049 loss_rpn_cls: 0.01658 loss_rpn_loc:  
0.1617 time: 0.5013 last_time: 0.5259 data_time: 0.0146 last_data_time:  
0.0223 lr: 0.00025 max_mem: 2460M  
[07/21 20:10:53 d2.utils.events]: eta: 0:03:52 iter: 1539 total_loss: 0.8439  
loss_cls: 0.1569 loss_box_reg: 0.4433 loss_rpn_cls: 0.03017 loss_rpn_loc:  
0.1729 time: 0.5012 last_time: 0.5084 data_time: 0.0072 last_data_time:  
0.0094 lr: 0.00025 max_mem: 2460M  
[07/21 20:11:03 d2.utils.events]: eta: 0:03:42 iter: 1559 total_loss: 0.7678  
loss_cls: 0.1511 loss_box_reg: 0.3971 loss_rpn_cls: 0.03138 loss_rpn_loc:  
0.1772 time: 0.5012 last_time: 0.4616 data_time: 0.0125 last_data_time:  
0.0055 lr: 0.00025 max_mem: 2460M  
[07/21 20:11:13 d2.utils.events]: eta: 0:03:32 iter: 1579 total_loss: 0.7551  
loss_cls: 0.1401 loss_box_reg: 0.4088 loss_rpn_cls: 0.02351 loss_rpn_loc:  
0.174 time: 0.5011 last_time: 0.5026 data_time: 0.0106 last_data_time:  
0.0067 lr: 0.00025 max_mem: 2460M  
[07/21 20:11:22 d2.utils.events]: eta: 0:03:22 iter: 1599 total_loss: 0.7431  
loss_cls: 0.1449 loss_box_reg: 0.4152 loss_rpn_cls: 0.0278 loss_rpn_loc:  
0.1749 time: 0.5010 last_time: 0.5328 data_time: 0.0074 last_data_time:  
0.0254 lr: 0.00025 max_mem: 2460M  
[07/21 20:11:32 d2.utils.events]: eta: 0:03:12 iter: 1619 total_loss: 0.77  
loss_cls: 0.1511 loss_box_reg: 0.4161 loss_rpn_cls: 0.02403 loss_rpn_loc:  
0.1698 time: 0.5010 last_time: 0.5148 data_time: 0.0131 last_data_time:  
0.0183 lr: 0.00025 max_mem: 2460M  
[07/21 20:11:43 d2.utils.events]: eta: 0:03:02 iter: 1639 total_loss: 0.7163  
loss_cls: 0.1446 loss_box_reg: 0.3997 loss_rpn_cls: 0.02483 loss_rpn_loc:  
0.1694 time: 0.5010 last_time: 0.5031 data_time: 0.0152 last_data_time:  
0.0055 lr: 0.00025 max_mem: 2460M  
[07/21 20:11:53 d2.utils.events]: eta: 0:02:52 iter: 1659 total_loss: 0.8059  
loss_cls: 0.1538 loss_box_reg: 0.4282 loss_rpn_cls: 0.02244 loss_rpn_loc:  
0.1795 time: 0.5010 last_time: 0.5332 data_time: 0.0115 last_data_time:  
0.0273 lr: 0.00025 max_mem: 2460M  
[07/21 20:12:03 d2.utils.events]: eta: 0:02:41 iter: 1679 total_loss: 0.7493  
loss_cls: 0.1462 loss_box_reg: 0.3842 loss_rpn_cls: 0.02939 loss_rpn_loc:  
0.1667 time: 0.5010 last_time: 0.5123 data_time: 0.0127 last_data_time:  
0.0167 lr: 0.00025 max_mem: 2460M  
[07/21 20:12:13 d2.utils.events]: eta: 0:02:31 iter: 1699 total_loss: 0.7625  
loss_cls: 0.146 loss_box_reg: 0.4251 loss_rpn_cls: 0.02153 loss_rpn_loc:  
0.1705 time: 0.5009 last_time: 0.4993 data_time: 0.0104 last_data_time:  
0.0083 lr: 0.00025 max_mem: 2460M  
[07/21 20:12:23 d2.utils.events]: eta: 0:02:21 iter: 1719 total_loss: 0.794
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loss_cls: 0.145 loss_box_reg: 0.4268 loss_rpn_cls: 0.02385 loss_rpn_loc:  
0.1701 time: 0.5010 last_time: 0.5296 data_time: 0.0099 last_data_time:  
0.0299 lr: 0.00025 max_mem: 2460M  
[07/21 20:12:33 d2.utils.events]: eta: 0:02:11 iter: 1739 total_loss: 0.7645  
loss_cls: 0.1469 loss_box_reg: 0.4062 loss_rpn_cls: 0.02329 loss_rpn_loc:  
0.1714 time: 0.5009 last_time: 0.4991 data_time: 0.0108 last_data_time:  
0.0076 lr: 0.00025 max_mem: 2460M  
[07/21 20:12:43 d2.utils.events]: eta: 0:02:01 iter: 1759 total_loss: 0.7724  
loss_cls: 0.1371 loss_box_reg: 0.4121 loss_rpn_cls: 0.02403 loss_rpn_loc:  
0.1748 time: 0.5009 last_time: 0.5036 data_time: 0.0119 last_data_time:  
0.0078 lr: 0.00025 max_mem: 2460M  
[07/21 20:12:53 d2.utils.events]: eta: 0:01:51 iter: 1779 total_loss: 0.704  
loss_cls: 0.1356 loss_box_reg: 0.3941 loss_rpn_cls: 0.02364 loss_rpn_loc:  
0.1719 time: 0.5009 last_time: 0.5271 data_time: 0.0088 last_data_time:  
0.0133 lr: 0.00025 max_mem: 2460M  
[07/21 20:13:03 d2.utils.events]: eta: 0:01:41 iter: 1799 total_loss: 0.7502  
loss_cls: 0.1508 loss_box_reg: 0.3933 loss_rpn_cls: 0.02278 loss_rpn_loc:  
0.1586 time: 0.5010 last_time: 0.4621 data_time: 0.0127 last_data_time:  
0.0141 lr: 0.00025 max_mem: 2460M  
[07/21 20:13:13 d2.utils.events]: eta: 0:01:31 iter: 1819 total_loss: 0.7336  
loss_cls: 0.1427 loss_box_reg: 0.3987 loss_rpn_cls: 0.02192 loss_rpn_loc:  
0.1686 time: 0.5010 last_time: 0.4575 data_time: 0.0155 last_data_time:  
0.0077 lr: 0.00025 max_mem: 2460M  
[07/21 20:13:23 d2.utils.events]: eta: 0:01:20 iter: 1839 total_loss: 0.7604  
loss_cls: 0.1456 loss_box_reg: 0.4191 loss_rpn_cls: 0.02649 loss_rpn_loc:  
0.1717 time: 0.5009 last_time: 0.5158 data_time: 0.0131 last_data_time:  
0.0059 lr: 0.00025 max_mem: 2460M  
[07/21 20:13:33 d2.utils.events]: eta: 0:01:10 iter: 1859 total_loss: 0.7479  
loss_cls: 0.1385 loss_box_reg: 0.3946 loss_rpn_cls: 0.02157 loss_rpn_loc:  
0.1615 time: 0.5009 last_time: 0.5083 data_time: 0.0071 last_data_time:  
0.0099 lr: 0.00025 max_mem: 2460M  
[07/21 20:13:43 d2.utils.events]: eta: 0:01:00 iter: 1879 total_loss: 0.7396  
loss_cls: 0.1373 loss_box_reg: 0.4178 loss_rpn_cls: 0.01618 loss_rpn_loc:  
0.1722 time: 0.5009 last_time: 0.5038 data_time: 0.0115 last_data_time:  
0.0064 lr: 0.00025 max_mem: 2460M  
[07/21 20:13:53 d2.utils.events]: eta: 0:00:50 iter: 1899 total_loss: 0.7863  
loss_cls: 0.1532 loss_box_reg: 0.4178 loss_rpn_cls: 0.02054 loss_rpn_loc:  
0.1662 time: 0.5009 last_time: 0.5064 data_time: 0.0133 last_data_time:  
0.0101 lr: 0.00025 max_mem: 2460M  
[07/21 20:14:03 d2.utils.events]: eta: 0:00:40 iter: 1919 total_loss: 0.7363  
loss_cls: 0.1426 loss_box_reg: 0.4036 loss_rpn_cls: 0.02464 loss_rpn_loc:  
0.168 time: 0.5009 last_time: 0.5371 data_time: 0.0114 last_data_time:  
0.0330 lr: 0.00025 max_mem: 2460M  
[07/21 20:14:13 d2.utils.events]: eta: 0:00:30 iter: 1939 total_loss: 0.737  
loss_cls: 0.1379 loss_box_reg: 0.4141 loss_rpn_cls: 0.02441 loss_rpn_loc:  
0.1639 time: 0.5009 last_time: 0.4934 data_time: 0.0135 last_data_time:  
0.0063 lr: 0.00025 max_mem: 2460M  
[07/21 20:14:23 d2.utils.events]: eta: 0:00:20 iter: 1959 total_loss: 0.7117
```

```

loss_cls: 0.1451 loss_box_reg: 0.3927 loss_rpn_cls: 0.01779 loss_rpn_loc:
0.1601 time: 0.5009 last_time: 0.5041 data_time: 0.0111 last_data_time:
0.0054 lr: 0.00025 max_mem: 2460M
[07/21 20:14:33 d2.utils.events]: eta: 0:00:10 iter: 1979 total_loss: 0.7286
loss_cls: 0.1349 loss_box_reg: 0.3941 loss_rpn_cls: 0.02489 loss_rpn_loc:
0.1644 time: 0.5008 last_time: 0.5132 data_time: 0.0065 last_data_time:
0.0054 lr: 0.00025 max_mem: 2460M
[07/21 20:14:48 d2.utils.events]: eta: 0:00:00 iter: 1999 total_loss: 0.7437
loss_cls: 0.1473 loss_box_reg: 0.4105 loss_rpn_cls: 0.01927 loss_rpn_loc:
0.1701 time: 0.5007 last_time: 0.5013 data_time: 0.0115 last_data_time:
0.0053 lr: 0.00025 max_mem: 2460M
[07/21 20:14:48 d2.engine.hooks]: Overall training speed: 1998 iterations in
0:16:40 (0.5007 s / it)
[07/21 20:14:48 d2.engine.hooks]: Total training time: 0:16:50 (0:00:10 on
hooks)

```

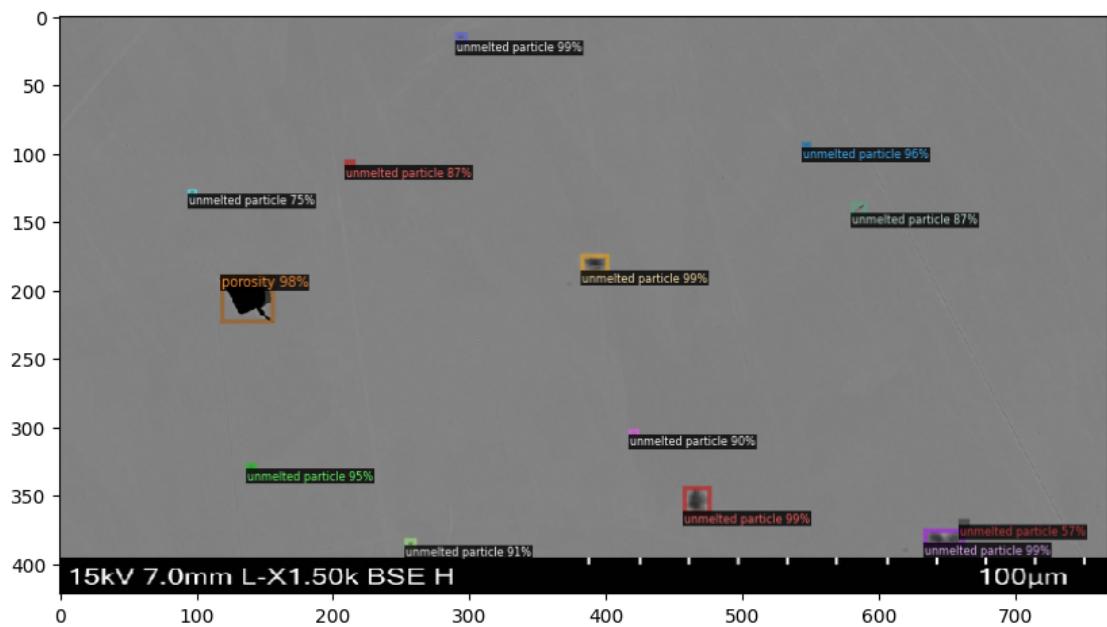
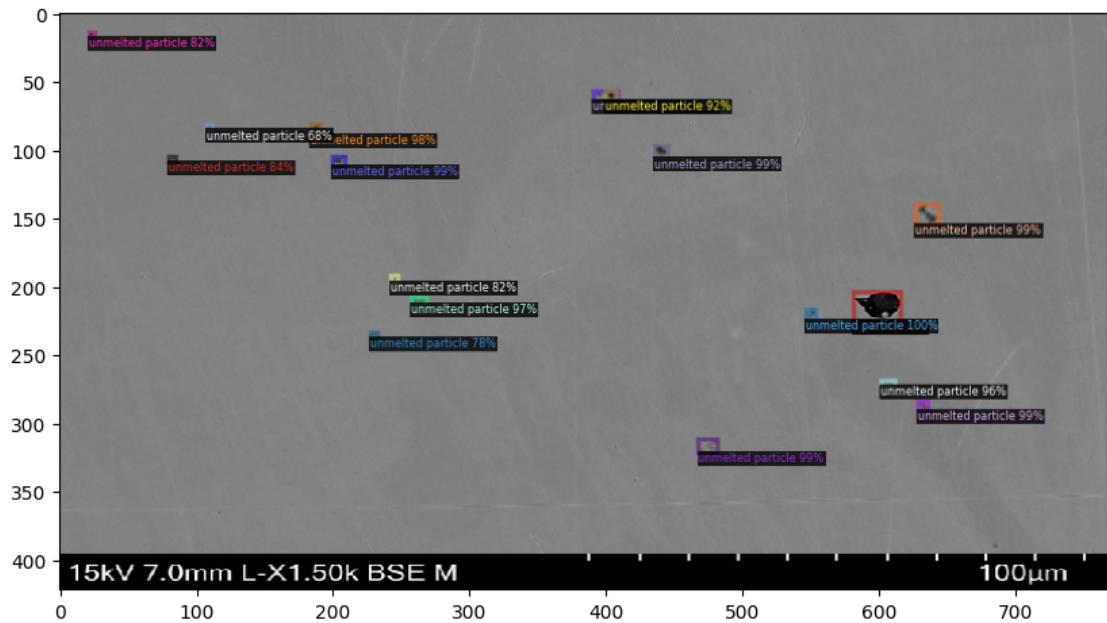
```
[ ]: # Look at training curves in tensorboard:
%reload_ext tensorboard
%tensorboard --logdir output
```

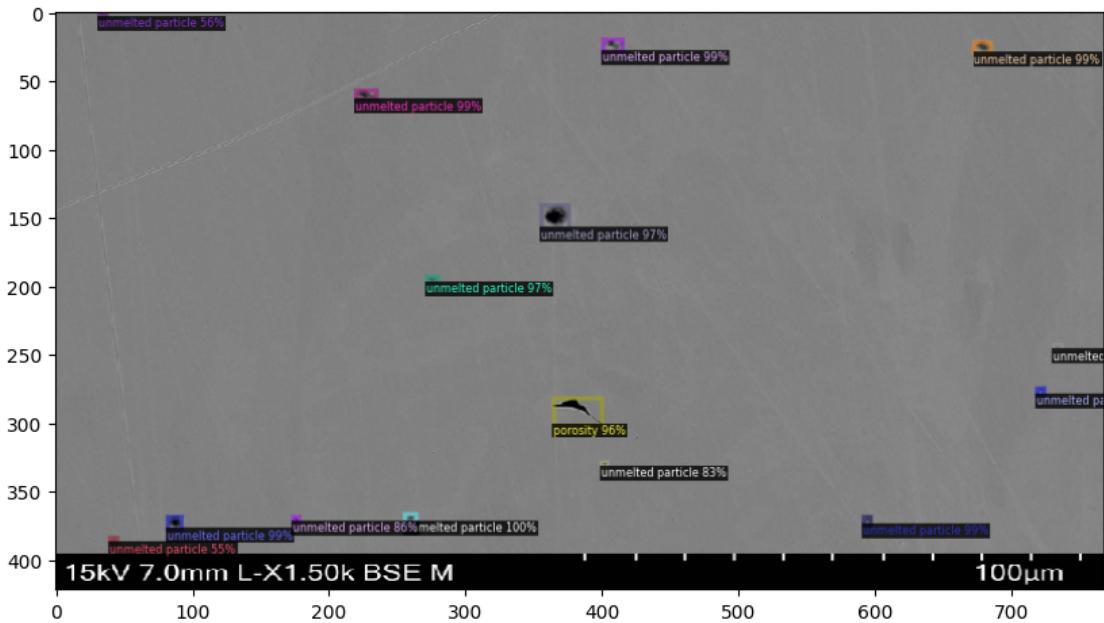
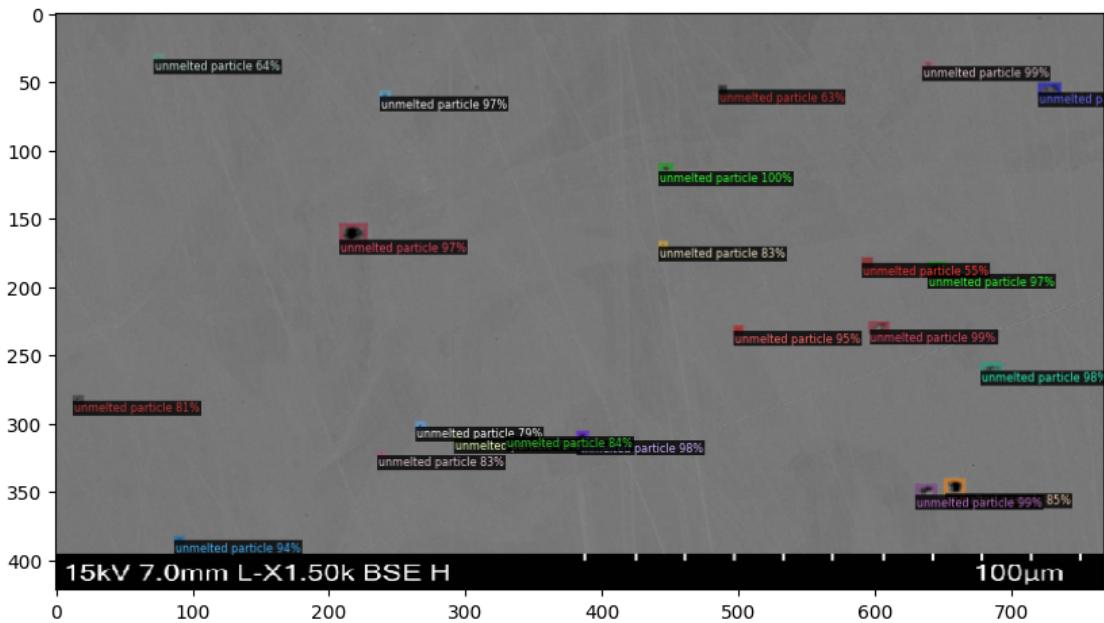
<IPython.core.display.Javascript object>

```
[ ]: cfg.MODEL.WEIGHTS = os.path.join(cfg.OUTPUT_DIR, "model_final.pth")
cfg.MODEL.ROI_HEADS.SCORE_THRESH_TEST = 0.5
cfg.DATASETS.TEST = ("p_test", )
predictor = DefaultPredictor(cfg)
```

```
[07/21 20:17:08 d2.checkpoint.detection_checkpoint]: [DetectionCheckpointer]
Loading from ./output/model_final.pth ...
```

```
[ ]: from detectron2.utils.visualizer import ColorMode
dataset_dicts = get_r_dicts('/content/drive/MyDrive/Mahabub/train')
for d in random.sample(dataset_dicts, 4):
    im = cv2.imread(d["file_name"])
    outputs = predictor(im)
    v = Visualizer(im[:, :, ::-1],
                   metadata=r_metadata,
                   scale=0.8,
                   instance_mode=ColorMode.IMAGE_BW # remove the colors of unsegmented pixels
    )
    v = v.draw_instance_predictions(outputs["instances"].to("cpu"))
    plt.figure(figsize = (10, 10))
    plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1], cv2.COLOR_BGR2RGB))
    plt.show()
```



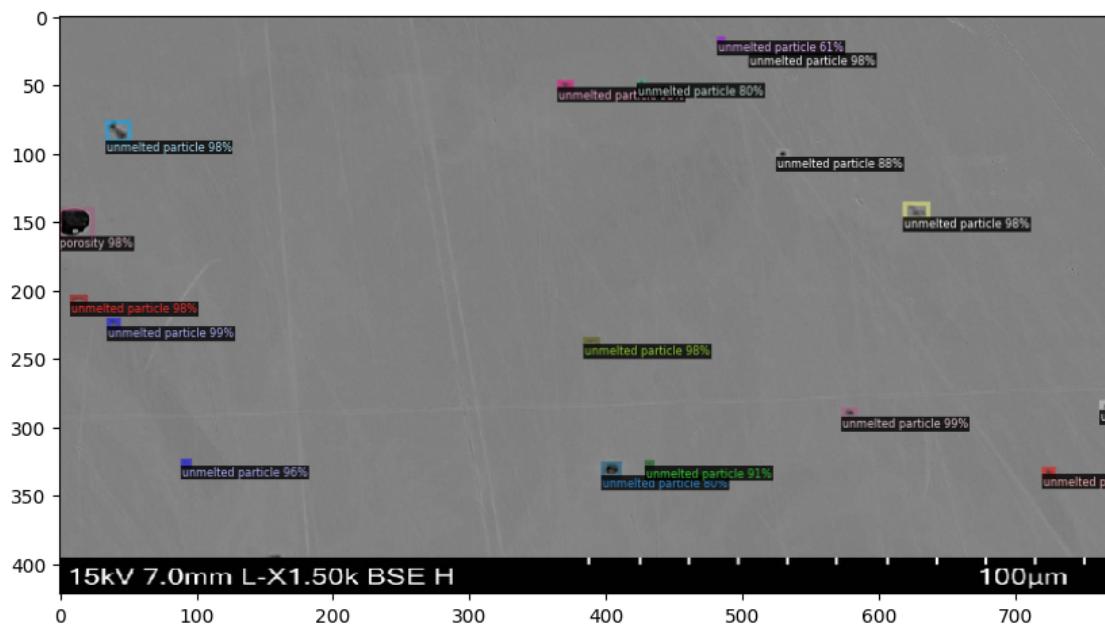


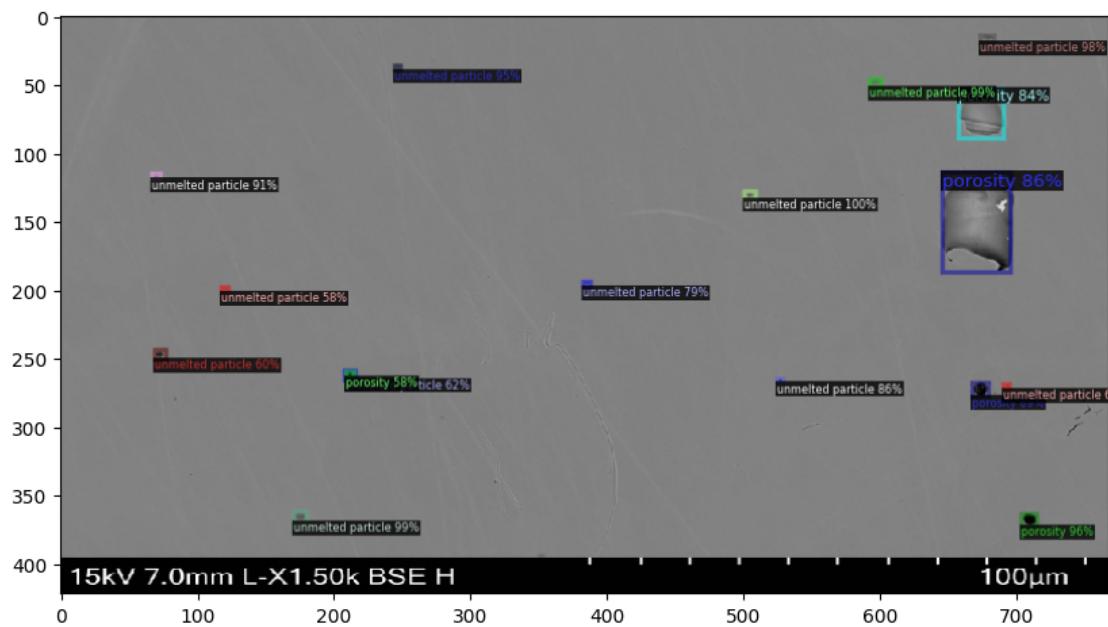
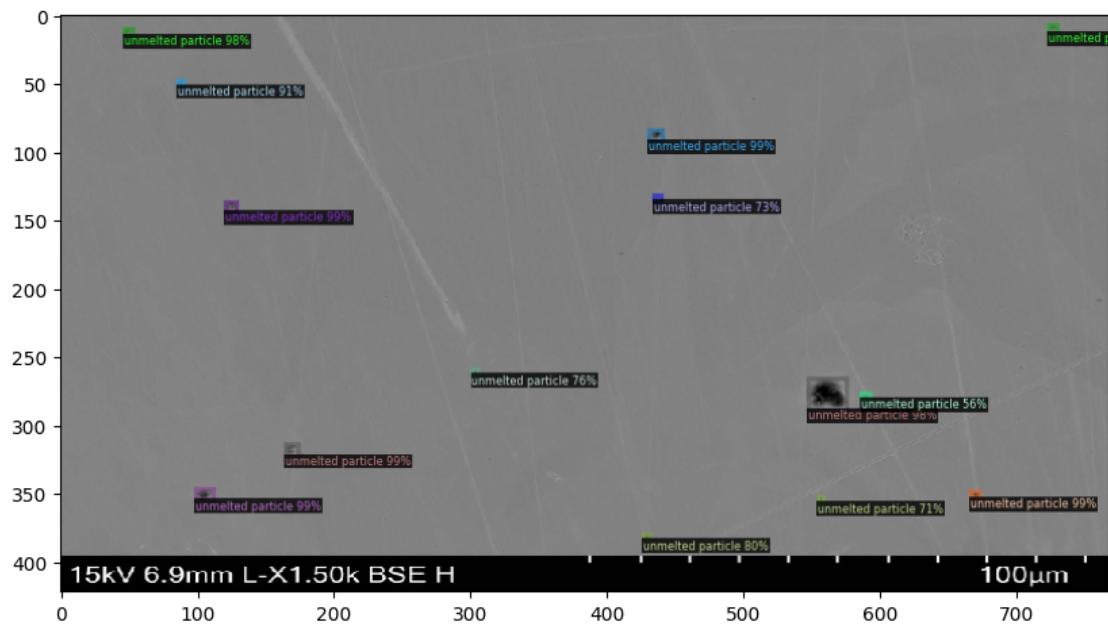
```
[ ]: from detectron2.utils.visualizer import ColorMode
dataset_dicts = get_r_dicts('/content/drive/MyDrive/Mahabub/test')
for d in random.sample(dataset_dicts, 4):
    im = cv2.imread(d["file_name"])
    outputs = predictor(im)
```

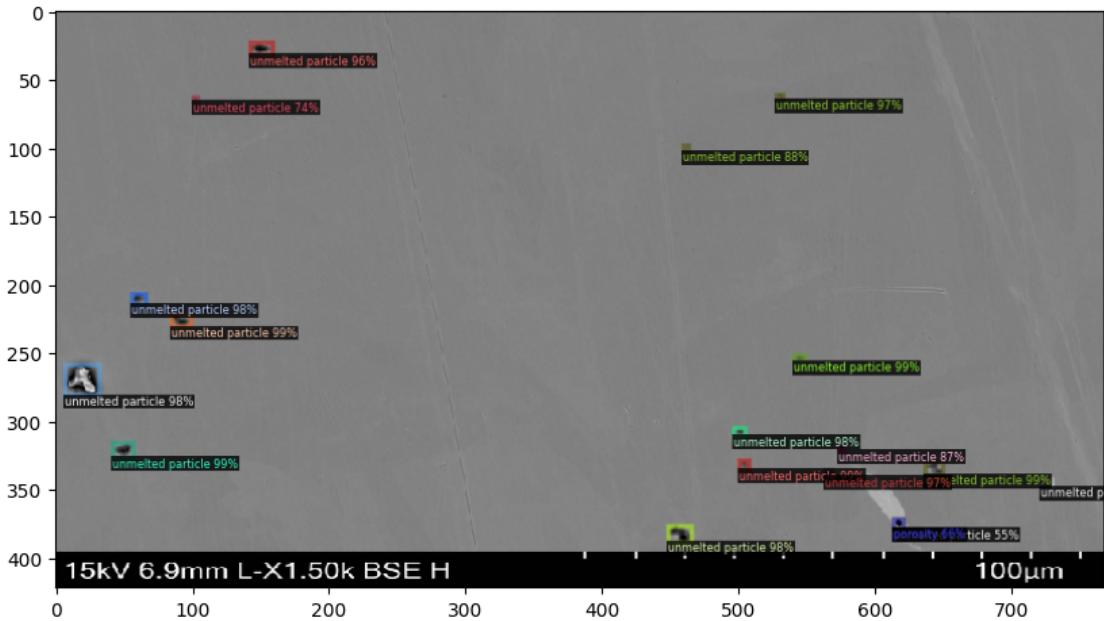
```

v = Visualizer(im[:, :, ::-1],
               metadata=r_metadata,
               scale=0.8,
               instance_mode=ColorMode.IMAGE_BW    # remove the colors of unsegmented pixels
)
v = v.draw_instance_predictions(outputs["instances"].to("cpu"))
plt.figure(figsize = (10, 10))
plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1], cv2.COLOR_BGR2RGB))
plt.show()

```







```
[ ]: from detectron2.evaluation import COCOEvaluator, inference_on_dataset
from detectron2.data import build_detection_test_loader
evaluator = COCOEvaluator("p_train", ['bbox'], False, output_dir="./output/")
val_loader = build_detection_test_loader(cfg, "p_train")
print(inference_on_dataset(predictor.model, val_loader, evaluator))
```

[07/21 20:17:54 d2.evaluation.coco_evaluation]: Trying to convert 'p_train' to COCO format ...
[07/21 20:17:54 d2.data.datasets.coco]: Converting annotations of dataset 'p_train' to COCO format ...
[07/21 20:17:54 d2.data.datasets.coco]: Converting dataset dicts into COCO format
[07/21 20:17:54 d2.data.datasets.coco]: Conversion finished, #images: 42, #annotations: 715
[07/21 20:17:54 d2.data.datasets.coco]: Caching COCO format annotations at './output/p_train_coco_format.json' ...
[07/21 20:17:54 d2.data.dataset_mapper]: [DatasetMapper] Augmentations used in inference: [ResizeShortestEdge(short_edge_length=(800, 800), max_size=1333, sample_style='choice')]
[07/21 20:17:54 d2.data.common]: Serializing the dataset using: <class 'detectron2.data.common._TorchSerializedList'>
[07/21 20:17:54 d2.data.common]: Serializing 42 elements to byte tensors and concatenating them all ...
[07/21 20:17:54 d2.data.common]: Serialized dataset takes 0.16 MiB
[07/21 20:17:54 d2.evaluation.evaluator]: Start inference on 42 batches
[07/21 20:17:56 d2.evaluation.evaluator]: Inference done 11/42. Dataloading: 0.0014 s/iter. Inference: 0.1090 s/iter. Eval: 0.0003 s/iter. Total: 0.1107

```

s/iter. ETA=0:00:03
[07/21 20:17:59 d2.evaluation.evaluator]: Total inference time: 0:00:04.145786
(0.112048 s / iter per device, on 1 devices)
[07/21 20:17:59 d2.evaluation.evaluator]: Total inference pure compute time:
0:00:04 (0.108921 s / iter per device, on 1 devices)
[07/21 20:17:59 d2.evaluation.coco_evaluation]: Preparing results for COCO
format ...
[07/21 20:17:59 d2.evaluation.coco_evaluation]: Saving results to
./output/coco_instances_results.json
[07/21 20:17:59 d2.evaluation.coco_evaluation]: Evaluating predictions with
unofficial COCO API...
Loading and preparing results...
DONE (t=0.00s)
creating index...
index created!
[07/21 20:17:59 d2.evaluation.fast_eval_api]: Evaluate annotation type *bbox*
[07/21 20:17:59 d2.evaluation.fast_eval_api]: COCOeval_opt.evaluate() finished
in 0.02 seconds.
[07/21 20:17:59 d2.evaluation.fast_eval_api]: Accumulating evaluation results...
[07/21 20:17:59 d2.evaluation.fast_eval_api]: COCOeval_opt.accumulate() finished
in 0.01 seconds.
Average Precision (AP) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.331
Average Precision (AP) @[ IoU=0.50 | area= all | maxDets=100 ] = 0.568
Average Precision (AP) @[ IoU=0.75 | area= all | maxDets=100 ] = 0.309
Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.316
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.591
Average Precision (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = -1.000
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 1 ] = 0.133
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets= 10 ] = 0.324
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=100 ] = 0.373
Average Recall (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.360
Average Recall (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.600
Average Recall (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = -1.000
[07/21 20:17:59 d2.evaluation.coco_evaluation]: Evaluation results for bbox:
| AP | AP50 | AP75 | APs | APm | AP1 |
|-----|-----|-----|-----|-----|-----|
| 33.141 | 56.827 | 30.940 | 31.580 | 59.145 | nan |
[07/21 20:17:59 d2.evaluation.coco_evaluation]: Some metrics cannot be computed
and is shown as NaN.
[07/21 20:17:59 d2.evaluation.coco_evaluation]: Per-category bbox AP:
| category | AP | category | AP | category | AP | category | AP |
|-----|-----|-----|-----|-----|-----|-----|-----|
| unmelted particle | 42.747 | porosity | 56.675 | microcrack | 0.000 | OrderedDict([('bbox', {'AP': 33.14057936251722, 'AP50': 56.82736369549149, 'AP75': 30.939837821455303, 'APs': 31.580461289864736, 'APm': 59.14466446644665, 'AP1': nan, 'AP-unmelted particle': 42.74711543399843, 'AP-porosity': 56.67462265355322, 'AP-microcrack': 0.0})])

```

```
!python -m pip install  
'git+https://github.com/facebookresearch/detectron2.git'  
  
Collecting git+https://github.com/facebookresearch/detectron2.git  
  Cloning https://github.com/facebookresearch/detectron2.git to  
/tmp/pip-req-build-8nwddjh0  
    Running command git clone --filter=blob:none --quiet  
https://github.com/facebookresearch/detectron2.git /tmp/pip-req-build-  
8nwddjh0  
      Resolved https://github.com/facebookresearch/detectron2.git to  
commit a2e43eab54d28ffbd59f5e9b4e3193b82faeb70f  
      Preparing metadata (setup.py) ... ent already satisfied: Pillow>=7.1  
in /usr/local/lib/python3.10/dist-packages (from detectron2==0.6)  
(8.4.0)  
Requirement already satisfied: matplotlib in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (3.7.1)  
Requirement already satisfied: pycocotools>=2.0.2 in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.0.6)  
Requirement already satisfied: termcolor>=1.1 in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.3.0)  
Collecting yacs>=0.1.8 (from detectron2==0.6)  
  Downloading yacs-0.1.8-py3-none-any.whl (14 kB)  
Requirement already satisfied: tabulate in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (0.9.0)  
Requirement already satisfied:云cloudpickle in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.2.1)  
Requirement already satisfied: tqdm>4.29.0 in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6)  
(4.65.0)  
Requirement already satisfied: tensorboard in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6)  
(2.12.3)  
Collecting fvcore<0.1.6,>=0.1.5 (from detectron2==0.6)  
  Downloading fvcore-0.1.5.post20221221.tar.gz (50 kB)  
----- 50.2/50.2 kB 1.7 MB/s eta  
0:00:00  
etadata (setup.py) ... detectron2==0.6)  
  Downloading iopath-0.1.9-py3-none-any.whl (27 kB)  
Collecting omegaconf>=2.1 (from detectron2==0.6)  
  Downloading omegaconf-2.3.0-py3-none-any.whl (79 kB)  
----- 79.5/79.5 kB 6.7 MB/s eta  
0:00:00  
detectron2==0.6)  
  Downloading hydra_core-1.3.2-py3-none-any.whl (154 kB)  
----- 154.5/154.5 kB 16.1 MB/s eta  
0:00:00  
detectron2==0.6)  
  Downloading black-23.7.0-cp310-cp310-  
manylinux_2_17_x86_64.manylinux2014_x86_64.whl (1.7 MB)  
----- 1.7/1.7 MB 56.5 MB/s eta
```

```
0:00:00
ent already satisfied: packaging in /usr/local/lib/python3.10/dist-
packages (from detectron2==0.6) (23.1)
Requirement already satisfied: numpy in
/usr/local/lib/python3.10/dist-packages (from fvcore<0.1.6,>=0.1.5-
>detectron2==0.6) (1.22.4)
Requirement already satisfied: pyyaml>=5.1 in
/usr/local/lib/python3.10/dist-packages (from fvcore<0.1.6,>=0.1.5-
>detectron2==0.6) (6.0.1)
Collecting antlr4-python3-runtime==4.9.* (from hydra-core>=1.1-
>detectron2==0.6)
  Downloading antlr4-python3-runtime-4.9.3.tar.gz (117 kB)
  ━━━━━━━━━━━━━━━━ 117.0/117.0 kB 12.9 MB/s eta
0:00:00
etadata (setup.py) ... iopath<0.1.10,>=0.1.7->detectron2==0.6)
  Downloading portalocker-2.7.0-py2.py3-none-any.whl (15 kB)
Requirement already satisfied: contourpy>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (1.1.0)
Requirement already satisfied: cycler>=0.10 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (0.11.0)
Requirement already satisfied: fonttools>=4.22.0 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (4.41.0)
Requirement already satisfied: kiwisolver>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (1.4.4)
Requirement already satisfied: pyparsing>=2.3.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (3.1.0)
Requirement already satisfied: python-dateutil>=2.7 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (2.8.2)
Requirement already satisfied: click>=8.0.0 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6)
(8.1.6)
Collecting mypy-extensions>=0.4.3 (from black->detectron2==0.6)
  Downloading mypy_extensions-1.0.0-py3-none-any.whl (4.7 kB)
Collecting pathspec>=0.9.0 (from black->detectron2==0.6)
  Downloading pathspec-0.11.1-py3-none-any.whl (29 kB)
Requirement already satisfied: platformdirs>=2 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6)
(3.9.1)
Requirement already satisfied: tomli>=1.1.0 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6)
(2.0.1)
Requirement already satisfied: absl-py>=0.4 in
/usr/local/lib/python3.10/dist-packages (from tensorflow-
```

```
>detectron2==0.6) (1.4.0)
Requirement already satisfied: grpcio>=1.48.2 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (1.56.0)
Requirement already satisfied: google-auth<3,>=1.6.3 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (2.17.3)
Requirement already satisfied: google-auth-oauthlib<1.1,>=0.5 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (1.0.0)
Requirement already satisfied: markdown>=2.6.8 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (3.4.3)
Requirement already satisfied: protobuf>=3.19.6 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (3.20.3)
Requirement already satisfied: requests<3,>=2.21.0 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (2.27.1)
Requirement already satisfied: setuptools>=41.0.0 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (67.7.2)
Requirement already satisfied: tensorboard-data-server<0.8.0,>=0.7.0
in /usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (0.7.1)
Requirement already satisfied: werkzeug>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (2.3.6)
Requirement already satisfied: wheel>=0.26 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (0.40.0)
Requirement already satisfied: cachetools<6.0,>=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (5.3.1)
Requirement already satisfied: pyasn1-modules>=0.2.1 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (0.3.0)
Requirement already satisfied: six>=1.9.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (1.16.0)
Requirement already satisfied: rsa<5,>=3.1.4 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (4.9)
Requirement already satisfied: requests-oauthlib>=0.7.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth-
oauthlib<1.1,>=0.5->tensorboard->detectron2==0.6) (1.3.1)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (1.26.16)
```

```
Requirement already satisfied: certifi>=2017.4.17 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (2023.5.7)
Requirement already satisfied: charset-normalizer~=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (2.0.12)
Requirement already satisfied: idna<4,>=2.5 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (3.4)
Requirement already satisfied: MarkupSafe>=2.1.1 in
/usr/local/lib/python3.10/dist-packages (from werkzeug>=1.0.1-
>tensorboard->detectron2==0.6) (2.1.3)
Requirement already satisfied: pyasn1<0.6.0,>=0.4.6 in
/usr/local/lib/python3.10/dist-packages (from pyasn1-modules>=0.2.1-
>google-auth<3,>=1.6.3->tensorboard->detectron2==0.6) (0.5.0)
Requirement already satisfied: oauthlib>=3.0.0 in
/usr/local/lib/python3.10/dist-packages (from requests-
oauthlib>=0.7.0->google-auth-oauthlib<1.1,>=0.5->tensorboard-
>detectron2==0.6) (3.2.2)
Building wheels for collected packages: detectron2, fvcore, antlr4-
python3-runtime
  Building wheel for detectron2 (setup.py) ... e=detectron2-0.6-cp310-
cp310-linux_x86_64.whl size=6111769
sha256=23d4689381332fd572230cbe74302f72a192f14b7d908bdd8888316bc19accb
f
    Stored in directory:
/tmp/pip-ephem-wheel-cache-9zy3s4ww/wheels/47/e5/15/94c80df2ba85500c5d
76599cc307c0a7079d0e221bb6fc4375
  Building wheel for fvcore (setup.py) ... e=fvcore-
0.1.5.post20221221-py3-none-any.whl size=61405
sha256=155afeb3c878cc133666f62d6fa35d80e594afdeaa0bad60e8eae8004308934
2
    Stored in directory:
/root/.cache/pip/wheels/01/c0/af/77c1cf53a1be9e42a52b48e5af2169d40ec2e
89f7362489dd0
    Building wheel for antlr4-python3-runtime (setup.py) ... e:
filename=antlr4_python3_runtime-4.9.3-py3-none-any.whl size=144554
sha256=299003dd0b711962d21ff7b4a928f4092bc67cb3b04364e483bbd889c162a70
d
    Stored in directory:
/root/.cache/pip/wheels/12/93/dd/1f6a127edc45659556564c5730f6d4e300888
f4bca2d4c5a88
Successfully built detectron2 fvcore antlr4-python3-runtime
Installing collected packages: antlr4-python3-runtime, yacs,
portalocker, pathspec, omegaconf, mypy-extensions, iopath, hydra-core,
black, fvcore, detectron2
Successfully installed antlr4-python3-runtime-4.9.3 black-23.7.0
detectron2-0.6 fvcore-0.1.5.post20221221 hydra-core-1.3.2 iopath-0.1.9
```

```
mypy-extensions-1.0.0 omegaconf-2.3.0 pathspec-0.11.1 portalocker-  
2.7.0 yacs-0.1.8  
!python -m pip install pyyaml==5.1  
Collecting pyyaml==5.1  
  Downloading PyYAML-5.1.tar.gz (274 kB)  
   ━━━━━━━━━━━━━━━━ 0.0/274.2 kB ? eta -:--:  
   ━━━━━━━━━━━━━━━━ 122.9/274.2 kB 4.4 MB/s eta  
0:00:01 ━━━━━━━━━━━━━━━━ 274.2/274.2 kB 5.0  
MB/s eta 0:00:00  
  etadata (setup.py) ... l  
    Building wheel for pyyaml (setup.py) ... l: filename=PyYAML-5.1-  
cp310-cp310-linux_x86_64.whl size=44090  
sha256=e359c6103d615d672f60394fb0dd41516bc426d27b5b8101586a5c9df6330e6  
1  
  Stored in directory:  
/root/.cache/pip/wheels/70/83/31/975b737609aba39a4099d471d5684141c1fdc  
3404f97e7f68a  
Successfully built pyyaml  
Installing collected packages: pyyaml  
Attempting uninstall: pyyaml  
  Found existing installation: PyYAML 6.0.1  
  Uninstalling PyYAML-6.0.1:  
    Successfully uninstalled PyYAML-6.0.1  
ERROR: pip's dependency resolver does not currently take into account  
all the packages that are installed. This behaviour is the source of  
the following dependency conflicts.  
dask 2022.12.1 requires pyyaml>=5.3.1, but you have pyyaml 5.1 which  
is incompatible.  
flax 0.7.0 requires PyYAML>=5.4.1, but you have pyyaml 5.1 which is  
incompatible.  
Successfully installed pyyaml-5.1  
  
import torch, detectron2  
!nvcc --version  
TORCH_VERSION = ".".join(torch.__version__.split(".")[:2])  
CUDA_VERSION = torch.__version__.split("+")[-1]  
print("torch: ", TORCH_VERSION, "; cuda: ", CUDA_VERSION)  
print("detectron2:", detectron2.__version__)  
  
nvcc: NVIDIA (R) Cuda compiler driver  
Copyright (c) 2005-2022 NVIDIA Corporation  
Built on Wed_Sep_21_10:33:58_PDT_2022  
Cuda compilation tools, release 11.8, V11.8.89  
Build cuda_11.8.r11.8/compiler.31833905_0  
torch: 2.0 ; cuda: cu118  
detectron2: 0.6
```

```
import detectron2
from detectron2.utils.logger import setup_logger
setup_logger()

# import some common libraries
import numpy as np
import cv2
import matplotlib.pyplot as plt

# import some common detectron2 utilities
from detectron2 import model_zoo
from detectron2.engine import DefaultPredictor
from detectron2.config import get_cfg
from detectron2.utils.visualizer import Visualizer
from detectron2.data import MetadataCatalog, DatasetCatalog

from google.colab import drive
drive.mount('/content/drive')

Mounted at /content/drive

!ls '/content/drive/MyDrive/Mahabub'

average_areas.txt  crack_info.txt  test  train

!ls '/content/drive/MyDrive/Mahabub/train'

rsz_1slm_square_finalx15k_0001.jpg    rsz_slm_square_finalx15k_0013.jpg
rsz_1slm_square_finalx15k_0001.json
rsz_slm_square_finalx15k_0013.json
rsz_1slm_square_finalx15k_0006.jpg    rsz_slm_square_finalx15k_0014.jpg
rsz_1slm_square_finalx15k_0006.json
rsz_slm_square_finalx15k_0014.json
rsz_1slm_square_finalx15k_0007.jpg    rsz_slm_square_finalx15k_0016.jpg
rsz_1slm_square_finalx15k_0007.json
rsz_slm_square_finalx15k_0016.json
rsz_1slm_square_finalx15k_0017.jpg    rsz_slm_square_finalx15k_0018.jpg
rsz_1slm_square_finalx15k_0017.json
rsz_slm_square_finalx15k_0018.json
rsz_1slm_square_finalx15k_0019.jpg    rsz_slm_square_finalx15k_0021.jpg
rsz_1slm_square_finalx15k_0019.json
rsz_slm_square_finalx15k_0021.json
rsz_1slm_square_finalx15k_0020.jpg    rsz_slm_square_finalx15k_0022.jpg
rsz_1slm_square_finalx15k_0020.json
rsz_slm_square_finalx15k_0022.json
rsz_1slm_square_finalx15k_0024.jpg    rsz_slm_square_finalx15k_0023.jpg
rsz_1slm_square_finalx15k_0024.json
rsz_slm_square_finalx15k_0023.json
rsz_1slm_square_finalx15k_0029.jpg    rsz_slm_square_finalx15k_0025.jpg
rsz_1slm_square_finalx15k_0029.json
rsz_slm_square_finalx15k_0025.json
```

```
rsz_1slm_square_finalx15k_0031.jpg      rsz_slm_square_finalx15k_0026.jpg
rsz_1slm_square_finalx15k_0031.json
rsz_slm_square_finalx15k_0026.json
rsz_1slm_square_finalx15k_0032.jpg      rsz_slm_square_finalx15k_0027.jpg
rsz_1slm_square_finalx15k_0032.json
rsz_slm_square_finalx15k_0027.json
rsz_1slm_square_finalx15k_0040.jpg      rsz_slm_square_finalx15k_0028.jpg
rsz_1slm_square_finalx15k_0040.json
rsz_slm_square_finalx15k_0028.json
rsz_1slm_square_finalx15k_0059.jpg      rsz_slm_square_finalx15k_0030.jpg
rsz_1slm_square_finalx15k_0059.json
rsz_slm_square_finalx15k_0030.json
rsz_slm_square_finalx15k_0002.jpg      rsz_slm_square_finalx15k_0033.jpg
rsz_slm_square_finalx15k_0002.json
rsz_slm_square_finalx15k_0033.json
rsz_slm_square_finalx15k_0003.jpg      rsz_slm_square_finalx15k_0034.jpg
rsz_slm_square_finalx15k_0003.json
rsz_slm_square_finalx15k_0034.json
rsz_slm_square_finalx15k_0004.jpg      rsz_slm_square_finalx15k_0035.jpg
rsz_slm_square_finalx15k_0004.json
rsz_slm_square_finalx15k_0035.json
rsz_slm_square_finalx15k_0005.jpg      rsz_slm_square_finalx15k_0036.jpg
rsz_slm_square_finalx15k_0005.json
rsz_slm_square_finalx15k_0036.json
rsz_slm_square_finalx15k_0008.jpg      rsz_slm_square_finalx15k_0037.jpg
rsz_slm_square_finalx15k_0008.json
rsz_slm_square_finalx15k_0037.json
rsz_slm_square_finalx15k_0009.jpg      rsz_slm_square_finalx15k_0038.jpg
rsz_slm_square_finalx15k_0009.json
rsz_slm_square_finalx15k_0038.json
rsz_slm_square_finalx15k_0010.jpg      rsz_slm_square_finalx15k_0041.jpg
rsz_slm_square_finalx15k_0010.json
rsz_slm_square_finalx15k_0041.json
rsz_slm_square_finalx15k_0011.jpg      rsz_slm_square_finalx15k_0042.jpg
rsz_slm_square_finalx15k_0011.json
rsz_slm_square_finalx15k_0042.json
rsz_slm_square_finalx15k_0012.jpg      rsz_slm_square_finalx15k_0043.jpg
rsz_slm_square_finalx15k_0012.json
rsz_slm_square_finalx15k_0043.json
```

```
!ls '/content/drive/MyDrive/Mahabub/test'
```

```
rsz_1slm_square_finalx15k_0015.jpg      rsz_slm_square_finalx15k_0051.jpg
rsz_1slm_square_finalx15k_0015.json
rsz_slm_square_finalx15k_0051.json
rsz_1slm_square_finalx15k_0039.jpg      rsz_slm_square_finalx15k_0052.jpg
rsz_1slm_square_finalx15k_0039.json
rsz_slm_square_finalx15k_0052.json
rsz_1slm_square_finalx15k_0044.jpg      rsz_slm_square_finalx15k_0053.jpg
rsz_1slm_square_finalx15k_0044.json
```

```

rsz_slm_square_finalx15k_0053.json      rsz_slm_square_finalx15k_0054.jpg
rsz_slm_square_finalx15k_0045.jpg
rsz_slm_square_finalx15k_0045.json
rsz_slm_square_finalx15k_0054.json
rsz_slm_square_finalx15k_0046.jpg      rsz_slm_square_finalx15k_0055.jpg
rsz_slm_square_finalx15k_0046.json
rsz_slm_square_finalx15k_0055.json
rsz_slm_square_finalx15k_0047.jpg      rsz_slm_square_finalx15k_0056.jpg
rsz_slm_square_finalx15k_0047.json
rsz_slm_square_finalx15k_0056.json
rsz_slm_square_finalx15k_0048.jpg      rsz_slm_square_finalx15k_0057.jpg
rsz_slm_square_finalx15k_0048.json
rsz_slm_square_finalx15k_0057.json
rsz_slm_square_finalx15k_0049.jpg      rsz_slm_square_finalx15k_0058.jpg
rsz_slm_square_finalx15k_0049.json
rsz_slm_square_finalx15k_0058.json
rsz_slm_square_finalx15k_0050.jpg      rsz_slm_square_finalx15k_0060.jpg
rsz_slm_square_finalx15k_0050.json
rsz_slm_square_finalx15k_0060.json

import os
import numpy as np
import json
from detectron2.structures import BoxMode

def get_r_dicts(directory):

    classes = ['unmelted particle', 'porosity', 'microcrack']
    dataset_dicts = []
    for idx, filename in enumerate([file for file in
os.listdir(directory) if file.endswith('.json')]):
        json_file = os.path.join(directory, filename)
        with open(json_file) as f:
            img_anns = json.load(f)

        record = {}

        filename = os.path.join(directory, img_anns["imagePath"])

        record["file_name"] = filename
        record["image_id"] = idx
        record["height"] = 528
        record["width"] = 960

        annos = img_anns["shapes"]
        objs = []
        for anno in annos:
            px = [a[0] for a in anno['points']]
            py = [a[1] for a in anno['points']]
            poly = [(x, y) for x, y in zip(px, py)]

```

```

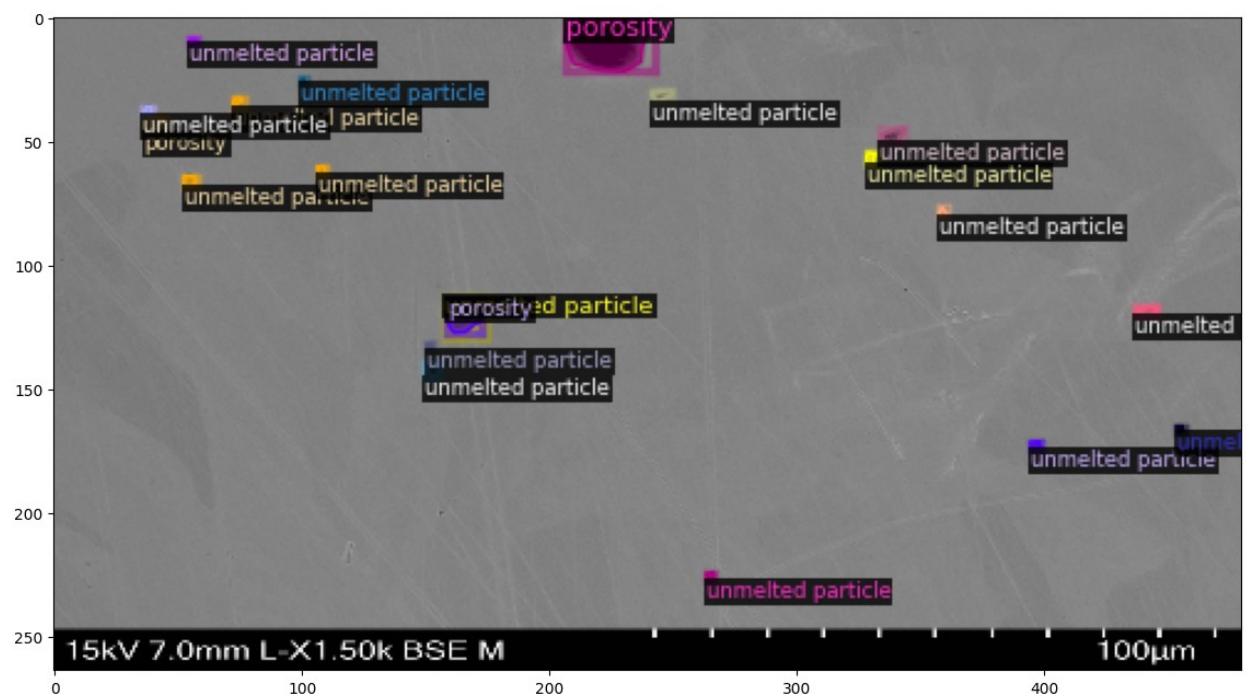
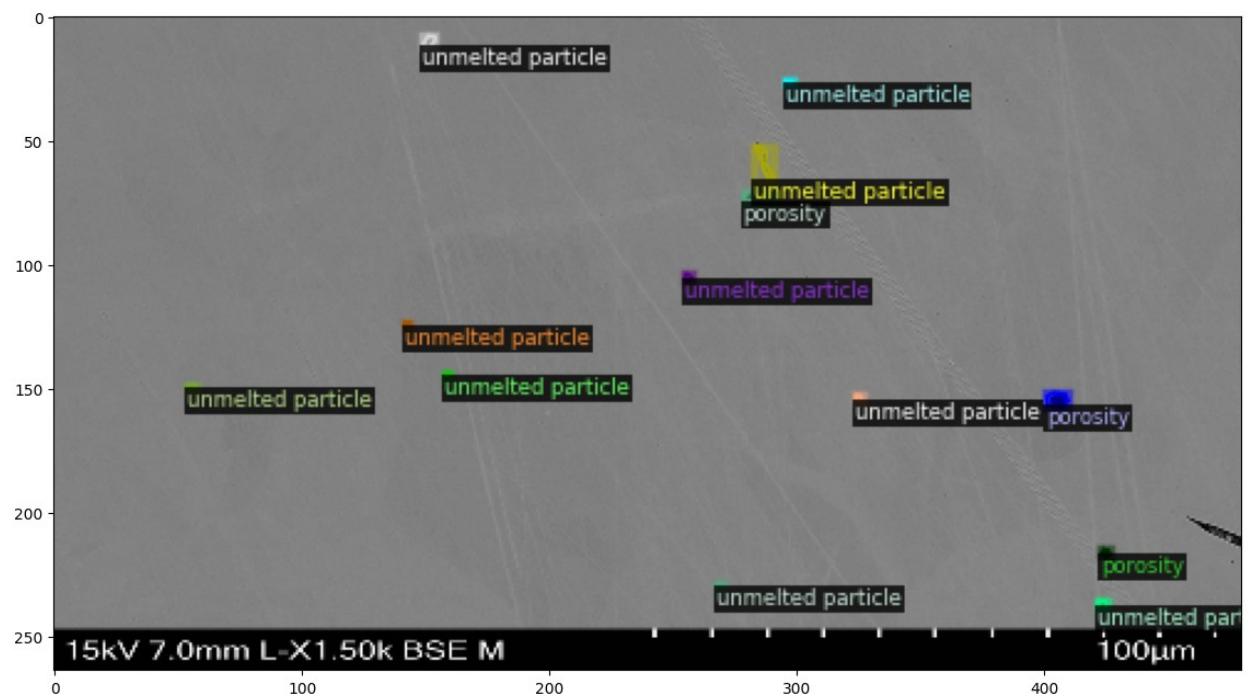
        poly = [p for x in poly for p in x]
        obj = {
            "bbox": [np.min(px), np.min(py), np.max(px),
        np.max(py)],
            "bbox_mode": BoxMode.XYXY_ABS,
            "segmentation": [poly],
            "category_id": classes.index(anno['label']),
            "iscrowd": 0
        }
        objs.append(obj)
    record["annotations"] = objs
    dataset_dicts.append(record)
return dataset_dicts

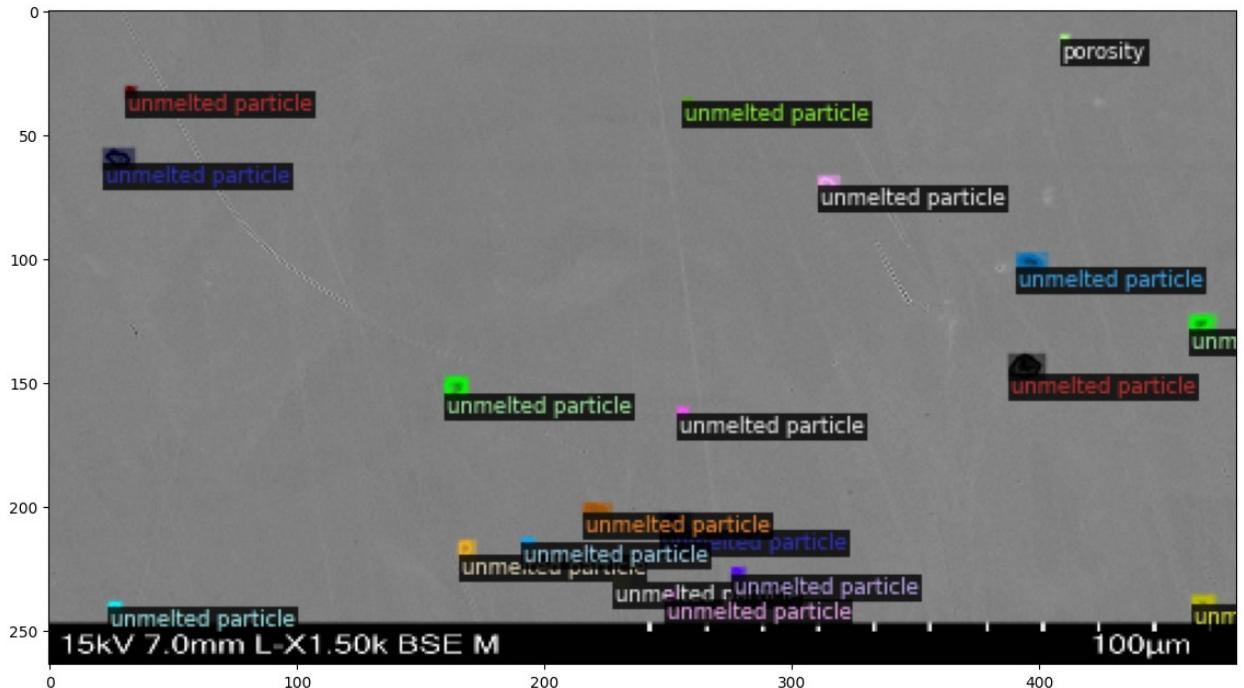
from detectron2.data import DatasetCatalog, MetadataCatalog
for d in ["train", "test"]:
    DatasetCatalog.register("p_" + d, lambda d=d:
get_r_dicts('/content/drive/MyDrive/Mahabub/' + d))
    MetadataCatalog.get("p_" + d).set(thing_classes=['unmelted
particle', 'porosity', 'microcrack'])
r_metadata = MetadataCatalog.get("p_train")

import random

dataset_dicts = get_r_dicts("/content/drive/MyDrive/Mahabub/train")
for d in random.sample(dataset_dicts, 3):
    img = cv2.imread(d["file_name"])
    v = Visualizer(img[:, :, ::-1], metadata=r_metadata, scale=0.5)
    v = v.draw_dataset_dict(d)
    plt.figure(figsize = (14, 10))
    plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1],
cv2.COLOR_BGR2RGB))
    plt.show()

```





```

from detectron2.engine import DefaultTrainer
from detectron2.config import get_cfg
from detectron2 import model_zoo

cfg = get_cfg()
cfg.merge_from_file(model_zoo.get_config_file("COCO-Detection/faster_rcnn_R_50_FPN_1x.yaml"))
cfg.DATASETS.TRAIN = ("p_train",)
cfg.DATASETS.TEST = ()
cfg.DATA_LOADER.NUM_WORKERS = 2
cfg.MODEL.WEIGHTS =
    model_zoo.get_checkpoint_url("COCO-Detection/faster_rcnn_R_50_FPN_1x.yaml")
cfg.SOLVER.IMS_PER_BATCH = 2
cfg.SOLVER.BASE_LR = 0.00025
cfg.SOLVER.MAX_ITER = 10000
cfg.SOLVER.STEPS = []           # do not decay learning rate
cfg.MODEL.ROI_HEADS.NUM_CLASSES = 3

os.makedirs(cfg.OUTPUT_DIR, exist_ok=True)
trainer = DefaultTrainer(cfg)
trainer.resume_or_load(resume=False)
trainer.train()

[07/21 22:29:25 d2.engine.defaults]: Model:
GeneralizedRCNN(
  (backbone): FPN(
    (fpn_lateral2): Conv2d(256, 256, kernel_size=(1, 1), stride=(1,

```

```
1))  
    (fpn_output2): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),  
padding=(1, 1))  
    (fpn_lateral3): Conv2d(512, 256, kernel_size=(1, 1), stride=(1,  
1))  
    (fpn_output3): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),  
padding=(1, 1))  
    (fpn_lateral4): Conv2d(1024, 256, kernel_size=(1, 1), stride=(1,  
1))  
    (fpn_output4): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),  
padding=(1, 1))  
    (fpn_lateral5): Conv2d(2048, 256, kernel_size=(1, 1), stride=(1,  
1))  
    (fpn_output5): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),  
padding=(1, 1))  
    (top_block): LastLevelMaxPool()  
    (bottom_up): ResNet(  
        (stem): BasicStem(  
            (conv1): Conv2d(  
                3, 64, kernel_size=(7, 7), stride=(2, 2), padding=(3, 3),  
bias=False  
                (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
            )  
        )  
        (res2): Sequential(  
            (0): BottleneckBlock(  
                (shortcut): Conv2d(  
                    64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
                    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
                )  
                (conv1): Conv2d(  
                    64, 64, kernel_size=(1, 1), stride=(1, 1), bias=False  
                    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
                )  
                (conv2): Conv2d(  
                    64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),  
bias=False  
                    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
                )  
                (conv3): Conv2d(  
                    64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
                    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
                )  
            )  
            (1): BottleneckBlock(  
                (conv1): Conv2d(  
                    256, 64, kernel_size=(1, 1), stride=(1, 1), bias=False  
                    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
                )
```

```
(conv2): Conv2d(  
    64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),  
bias=False  
    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
)  
(conv3): Conv2d(  
    64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
)  
)  
(2): BottleneckBlock(  
    (conv1): Conv2d(  
        256, 64, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
)  
    (conv2): Conv2d(  
        64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),  
bias=False  
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
)  
    (conv3): Conv2d(  
        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
)  
)  
)  
(res3): Sequential(  
    (0): BottleneckBlock(  
        (shortcut): Conv2d(  
            256, 512, kernel_size=(1, 1), stride=(2, 2), bias=False  
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)  
)  
        (conv1): Conv2d(  
            256, 128, kernel_size=(1, 1), stride=(2, 2), bias=False  
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)  
)  
        (conv2): Conv2d(  
            128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,  
1), bias=False  
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)  
)  
        (conv3): Conv2d(  
            128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False  
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)  
)  
)  
(1): BottleneckBlock(  
    (conv1): Conv2d(  
        512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
```

```
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv2): Conv2d(
        128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv3): Conv2d(
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv2): Conv2d(
        128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv3): Conv2d(
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
(3): BottleneckBlock(
    (conv1): Conv2d(
        512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv2): Conv2d(
        128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv3): Conv2d(
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
)
(res4): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            512, 1024, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
        )
    )
)
```

```
(conv1): Conv2d(
    512, 256, kernel_size=(1, 1), stride=(2, 2), bias=False
    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
)
(conv2): Conv2d(
    256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
)
(conv3): Conv2d(
    256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
)
)
(1): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(3): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
)
```

```
(conv2): Conv2d(
    256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
)
(conv3): Conv2d(
    256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
)
)
(4): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(5): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
)
(res5): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            1024, 2048, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
        )
        (conv1): Conv2d(
            1024, 512, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
    )
)
```

```
(norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
)
(conv2): Conv2d(
    512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
    (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
)
(conv3): Conv2d(
    512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
)
)
(1): BottleneckBlock(
    (conv1): Conv2d(
        2048, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv2): Conv2d(
        512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv3): Conv2d(
        512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        2048, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv2): Conv2d(
        512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv3): Conv2d(
        512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
    )
)
)
)
)
)
(proposal_generator): RPN(
    (rpn_head): StandardRPNHead(
        (conv): Conv2d(
            256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1)
```

```

        (activation): ReLU()
    )
    (objectness_logits): Conv2d(256, 3, kernel_size=(1, 1),
stride=(1, 1))
    (anchor_deltas): Conv2d(256, 12, kernel_size=(1, 1), stride=(1,
1))
)
(AnchorGenerator):
    (cell_anchors): BufferList()
)
)
(ROIHeads):
    (BoxPooler):
        (LevelPoolers):
            (0): ROIAlign(output_size=(7, 7), spatial_scale=0.25,
sampling_ratio=0, aligned=True)
            (1): ROIAlign(output_size=(7, 7), spatial_scale=0.125,
sampling_ratio=0, aligned=True)
            (2): ROIAlign(output_size=(7, 7), spatial_scale=0.0625,
sampling_ratio=0, aligned=True)
            (3): ROIAlign(output_size=(7, 7), spatial_scale=0.03125,
sampling_ratio=0, aligned=True)
        )
    )
    (BoxHead):
        (Flatten): Flatten(start_dim=1, end_dim=-1)
        (fc1): Linear(in_features=12544, out_features=1024, bias=True)
        (fc_relu1): ReLU()
        (fc2): Linear(in_features=1024, out_features=1024, bias=True)
        (fc_relu2): ReLU()
    )
    (BoxPredictor):
        (cls_score): Linear(in_features=1024, out_features=4, bias=True)
        (bbox_pred): Linear(in_features=1024, out_features=12,
bias=True)
    )
)
)
[07/21 22:29:25 d2.data.build]: Removed 0 images with no usable
annotations. 42 images left.
[07/21 22:29:25 d2.data.build]: Distribution of instances among all 3
categories:
| category | #instances | category | #instances | category |
| #instances |           |           |           |           | |
|---|---|---|---|---|---|
| unmelted pa.. | 639 | porosity | 67 | microcrack | 9 |
|           |           |           |           |           |

```

```
| total | 715 | | |  
[07/21 22:29:25 d2.data.dataset_mapper]: [DatasetMapper] Augmentations  
used in training: [ResizeShortestEdge(short_edge_length=(640, 672,  
704, 736, 768, 800), max_size=1333, sample_style='choice'),  
RandomFlip()]  
[07/21 22:29:25 d2.data.build]: Using training sampler TrainingSampler  
[07/21 22:29:25 d2.data.common]: Serializing the dataset using: <class  
'detectron2.data.common._TorchSerializedList'>  
[07/21 22:29:25 d2.data.common]: Serializing 42 elements to byte  
tensors and concatenating them all ...  
[07/21 22:29:25 d2.data.common]: Serialized dataset takes 0.16 MiB  
[07/21 22:29:25 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-Detection/faster\_rcnn\_R\_50\_FPN\_1x/137257794/model\_final\_b275ba.pkl ...  
model_final_b275ba.pkl: 167MB [00:01, 107MB/s]  
  
WARNING:fvcore.common.checkpoint:Skip loading parameter  
'roi_heads.box_predictor.cls_score.weight' to the model due to  
incompatible shapes: (81, 1024) in the checkpoint but (4, 1024) in the  
model! You might want to double check if this is expected.  
WARNING:fvcore.common.checkpoint:Skip loading parameter  
'roi_heads.box_predictor.cls_score.bias' to the model due to  
incompatible shapes: (81,) in the checkpoint but (4,) in the model!  
You might want to double check if this is expected.  
WARNING:fvcore.common.checkpoint:Skip loading parameter  
'roi_heads.box_predictor.bbox_pred.weight' to the model due to  
incompatible shapes: (320, 1024) in the checkpoint but (12, 1024) in  
the model! You might want to double check if this is expected.  
WARNING:fvcore.common.checkpoint:Skip loading parameter  
'roi_heads.box_predictor.bbox_pred.bias' to the model due to  
incompatible shapes: (320,) in the checkpoint but (12,) in the model!  
You might want to double check if this is expected.  
WARNING:fvcore.common.checkpoint:Some model parameters or buffers are  
not found in the checkpoint:  
roi_heads.box_predictor.bbox_pred.{bias, weight}  
roi_heads.box_predictor.cls_score.{bias, weight}  
  
[07/21 22:29:27 d2.engine.train_loop]: Starting training from  
iteration 0  
  
/usr/local/lib/python3.10/dist-packages/torch/functional.py:504:  
UserWarning: torch.meshgrid: in an upcoming release, it will be  
required to pass the indexing argument. (Triggered internally at  
../aten/src/ATen/native/TensorShape.cpp:3483.)  
    return _VF.meshgrid(tensors, **kwargs) # type: ignore[attr-defined]
```

```
[07/21 22:29:41 d2.utils.events]: eta: 1:18:23 iter: 19 total_loss: 3.499 loss_cls: 1.385 loss_box_reg: 0.6632 loss_rpn_cls: 1.222 loss_rpn_loc: 0.2418 time: 0.4674 last_time: 0.4050 data_time: 0.0339 last_data_time: 0.0038 lr: 4.9953e-06 max_mem: 2456M [07/21 22:29:53 d2.utils.events]: eta: 1:17:40 iter: 39 total_loss: 2.516 loss_cls: 1.31 loss_box_reg: 0.6905 loss_rpn_cls: 0.3614 loss_rpn_loc: 0.2264 time: 0.4680 last_time: 0.5079 data_time: 0.0098 last_data_time: 0.0236 lr: 9.9902e-06 max_mem: 2456M [07/21 22:30:03 d2.utils.events]: eta: 1:17:50 iter: 59 total_loss: 2.19 loss_cls: 1.11 loss_box_reg: 0.6608 loss_rpn_cls: 0.08315 loss_rpn_loc: 0.233 time: 0.4664 last_time: 0.4696 data_time: 0.0076 last_data_time: 0.0084 lr: 1.4985e-05 max_mem: 2456M [07/21 22:30:12 d2.utils.events]: eta: 1:17:55 iter: 79 total_loss: 1.837 loss_cls: 0.8675 loss_box_reg: 0.6548 loss_rpn_cls: 0.04804 loss_rpn_loc: 0.2105 time: 0.4682 last_time: 0.4783 data_time: 0.0125 last_data_time: 0.0089 lr: 1.998e-05 max_mem: 2456M [07/21 22:30:22 d2.utils.events]: eta: 1:17:57 iter: 99 total_loss: 1.64 loss_cls: 0.6814 loss_box_reg: 0.6616 loss_rpn_cls: 0.04725 loss_rpn_loc: 0.2234 time: 0.4677 last_time: 0.4665 data_time: 0.0135 last_data_time: 0.0265 lr: 2.4975e-05 max_mem: 2458M [07/21 22:30:31 d2.utils.events]: eta: 1:18:07 iter: 119 total_loss: 1.467 loss_cls: 0.5949 loss_box_reg: 0.6186 loss_rpn_cls: 0.04936 loss_rpn_loc: 0.2249 time: 0.4676 last_time: 0.4852 data_time: 0.0087 last_data_time: 0.0057 lr: 2.997e-05 max_mem: 2458M [07/21 22:30:41 d2.utils.events]: eta: 1:18:11 iter: 139 total_loss: 1.376 loss_cls: 0.4852 loss_box_reg: 0.5958 loss_rpn_cls: 0.04025 loss_rpn_loc: 0.2146 time: 0.4704 last_time: 0.4866 data_time: 0.0143 last_data_time: 0.0069 lr: 3.4965e-05 max_mem: 2458M [07/21 22:30:50 d2.utils.events]: eta: 1:18:22 iter: 159 total_loss: 1.318 loss_cls: 0.4588 loss_box_reg: 0.6081 loss_rpn_cls: 0.03885 loss_rpn_loc: 0.201 time: 0.4725 last_time: 0.5027 data_time: 0.0117 last_data_time: 0.0060 lr: 3.996e-05 max_mem: 2458M [07/21 22:31:00 d2.utils.events]: eta: 1:18:12 iter: 179 total_loss: 1.226 loss_cls: 0.4032 loss_box_reg: 0.5603 loss_rpn_cls: 0.04854 loss_rpn_loc: 0.2227 time: 0.4735 last_time: 0.4965 data_time: 0.0088 last_data_time: 0.0086 lr: 4.4955e-05 max_mem: 2458M [07/21 22:31:10 d2.utils.events]: eta: 1:18:11 iter: 199 total_loss: 1.21 loss_cls: 0.3805 loss_box_reg: 0.6012 loss_rpn_cls: 0.04677 loss_rpn_loc: 0.2164 time: 0.4752 last_time: 0.5043 data_time: 0.0093 last_data_time: 0.0078 lr: 4.995e-05 max_mem: 2458M [07/21 22:31:20 d2.utils.events]: eta: 1:18:26 iter: 219 total_loss: 1.124 loss_cls: 0.3478 loss_box_reg: 0.5437 loss_rpn_cls: 0.03672 loss_rpn_loc: 0.1995 time: 0.4778 last_time: 0.5397 data_time: 0.0130 last_data_time: 0.0255 lr: 5.4945e-05 max_mem: 2458M
```

```
[07/21 22:31:30 d2.utils.events]: eta: 1:18:27 iter: 239
total_loss: 1.111 loss_cls: 0.3222 loss_box_reg: 0.5343
loss_rpn_cls: 0.0382 loss_rpn_loc: 0.211 time: 0.4797 last_time:
0.5194 data_time: 0.0090 last_data_time: 0.0090 lr: 5.994e-05
max_mem: 2458M
[07/21 22:31:40 d2.utils.events]: eta: 1:18:38 iter: 259
total_loss: 1.13 loss_cls: 0.3149 loss_box_reg: 0.5456
loss_rpn_cls: 0.04382 loss_rpn_loc: 0.22 time: 0.4815 last_time:
0.4430 data_time: 0.0124 last_data_time: 0.0061 lr: 6.4935e-05
max_mem: 2458M
[07/21 22:31:50 d2.utils.events]: eta: 1:18:46 iter: 279
total_loss: 1.065 loss_cls: 0.2966 loss_box_reg: 0.5416
loss_rpn_cls: 0.04067 loss_rpn_loc: 0.2097 time: 0.4827
last_time: 0.5154 data_time: 0.0120 last_data_time: 0.0062 lr:
6.993e-05 max_mem: 2458M
[07/21 22:32:00 d2.utils.events]: eta: 1:18:53 iter: 299
total_loss: 1.054 loss_cls: 0.276 loss_box_reg: 0.498 loss_rpn_cls:
0.03307 loss_rpn_loc: 0.2057 time: 0.4847 last_time: 0.5416
data_time: 0.0077 last_data_time: 0.0083 lr: 7.4925e-05 max_mem:
2458M
[07/21 22:32:11 d2.utils.events]: eta: 1:18:57 iter: 319
total_loss: 1.023 loss_cls: 0.267 loss_box_reg: 0.5225
loss_rpn_cls: 0.03885 loss_rpn_loc: 0.207 time: 0.4864 last_time:
0.5238 data_time: 0.0092 last_data_time: 0.0087 lr: 7.992e-05
max_mem: 2458M
[07/21 22:32:21 d2.utils.events]: eta: 1:19:31 iter: 339
total_loss: 1.018 loss_cls: 0.254 loss_box_reg: 0.5433
loss_rpn_cls: 0.03465 loss_rpn_loc: 0.1935 time: 0.4885
last_time: 0.5258 data_time: 0.0084 last_data_time: 0.0075 lr:
8.4915e-05 max_mem: 2458M
[07/21 22:32:31 d2.utils.events]: eta: 1:19:26 iter: 359
total_loss: 1.006 loss_cls: 0.255 loss_box_reg: 0.5409
loss_rpn_cls: 0.03478 loss_rpn_loc: 0.2017 time: 0.4891
last_time: 0.4808 data_time: 0.0118 last_data_time: 0.0161 lr:
8.991e-05 max_mem: 2458M
[07/21 22:32:41 d2.utils.events]: eta: 1:19:38 iter: 379
total_loss: 1.021 loss_cls: 0.2449 loss_box_reg: 0.5444
loss_rpn_cls: 0.03209 loss_rpn_loc: 0.2119 time: 0.4900
last_time: 0.4545 data_time: 0.0102 last_data_time: 0.0074 lr:
9.4905e-05 max_mem: 2458M
[07/21 22:32:51 d2.utils.events]: eta: 1:19:46 iter: 399
total_loss: 0.9483 loss_cls: 0.2249 loss_box_reg: 0.4953
loss_rpn_cls: 0.03482 loss_rpn_loc: 0.1969 time: 0.4909
last_time: 0.5159 data_time: 0.0163 last_data_time: 0.0057 lr:
9.99e-05 max_mem: 2458M
[07/21 22:33:02 d2.utils.events]: eta: 1:20:04 iter: 419
total_loss: 1.011 loss_cls: 0.2515 loss_box_reg: 0.5251
loss_rpn_cls: 0.03131 loss_rpn_loc: 0.2063 time: 0.4923
last_time: 0.5151 data_time: 0.0119 last_data_time: 0.0068 lr:
0.0001049 max_mem: 2458M
```

```
[07/21 22:33:12 d2.utils.events]: eta: 1:20:11 iter: 439
total_loss: 0.9533 loss_cls: 0.2313 loss_box_reg: 0.4977
loss_rpn_cls: 0.03624 loss_rpn_loc: 0.1958 time: 0.4932
last_time: 0.4964 data_time: 0.0117 last_data_time: 0.0186 lr:
0.00010989 max_mem: 2458M
[07/21 22:33:22 d2.utils.events]: eta: 1:20:12 iter: 459
total_loss: 0.9558 loss_cls: 0.2263 loss_box_reg: 0.4951
loss_rpn_cls: 0.03203 loss_rpn_loc: 0.2001 time: 0.4944
last_time: 0.5222 data_time: 0.0117 last_data_time: 0.0056 lr:
0.00011489 max_mem: 2458M
[07/21 22:33:33 d2.utils.events]: eta: 1:20:17 iter: 479
total_loss: 0.9897 loss_cls: 0.2355 loss_box_reg: 0.4993
loss_rpn_cls: 0.04018 loss_rpn_loc: 0.1976 time: 0.4953
last_time: 0.5192 data_time: 0.0107 last_data_time: 0.0055 lr:
0.00011988 max_mem: 2458M
[07/21 22:33:43 d2.utils.events]: eta: 1:20:12 iter: 499
total_loss: 0.9654 loss_cls: 0.222 loss_box_reg: 0.4807
loss_rpn_cls: 0.04411 loss_rpn_loc: 0.2034 time: 0.4956
last_time: 0.5439 data_time: 0.0102 last_data_time: 0.0229 lr:
0.00012488 max_mem: 2458M
[07/21 22:33:53 d2.utils.events]: eta: 1:20:05 iter: 519
total_loss: 0.9206 loss_cls: 0.2074 loss_box_reg: 0.4937
loss_rpn_cls: 0.02846 loss_rpn_loc: 0.202 time: 0.4960 last_time:
0.4714 data_time: 0.0117 last_data_time: 0.0063 lr: 0.00012987
max_mem: 2458M
[07/21 22:34:03 d2.utils.events]: eta: 1:20:03 iter: 539
total_loss: 0.9372 loss_cls: 0.2189 loss_box_reg: 0.4801
loss_rpn_cls: 0.02469 loss_rpn_loc: 0.1995 time: 0.4965
last_time: 0.5164 data_time: 0.0134 last_data_time: 0.0076 lr:
0.00013487 max_mem: 2458M
[07/21 22:34:13 d2.utils.events]: eta: 1:19:57 iter: 559
total_loss: 0.9463 loss_cls: 0.2264 loss_box_reg: 0.4926
loss_rpn_cls: 0.04142 loss_rpn_loc: 0.1936 time: 0.4968
last_time: 0.5450 data_time: 0.0124 last_data_time: 0.0185 lr:
0.00013986 max_mem: 2458M
[07/21 22:34:23 d2.utils.events]: eta: 1:19:56 iter: 579
total_loss: 0.9038 loss_cls: 0.2135 loss_box_reg: 0.4903
loss_rpn_cls: 0.02776 loss_rpn_loc: 0.1962 time: 0.4972
last_time: 0.5311 data_time: 0.0089 last_data_time: 0.0103 lr:
0.00014486 max_mem: 2458M
[07/21 22:34:34 d2.utils.events]: eta: 1:19:55 iter: 599
total_loss: 0.8866 loss_cls: 0.2063 loss_box_reg: 0.4891
loss_rpn_cls: 0.02975 loss_rpn_loc: 0.1949 time: 0.4980
last_time: 0.5147 data_time: 0.0106 last_data_time: 0.0058 lr:
0.00014985 max_mem: 2458M
[07/21 22:34:44 d2.utils.events]: eta: 1:19:53 iter: 619
total_loss: 0.8849 loss_cls: 0.221 loss_box_reg: 0.4329
loss_rpn_cls: 0.03433 loss_rpn_loc: 0.203 time: 0.4986 last_time:
0.4480 data_time: 0.0108 last_data_time: 0.0059 lr: 0.00015485
max_mem: 2458M
```

```
[07/21 22:34:54 d2.utils.events]: eta: 1:19:43 iter: 639
total_loss: 0.912 loss_cls: 0.1999 loss_box_reg: 0.4436
loss_rpn_cls: 0.02615 loss_rpn_loc: 0.2007 time: 0.4985
last_time: 0.5278 data_time: 0.0082 last_data_time: 0.0063 lr:
0.00015984 max_mem: 2458M
[07/21 22:35:04 d2.utils.events]: eta: 1:19:36 iter: 659
total_loss: 0.8721 loss_cls: 0.2015 loss_box_reg: 0.4401
loss_rpn_cls: 0.02566 loss_rpn_loc: 0.1914 time: 0.4991
last_time: 0.5132 data_time: 0.0117 last_data_time: 0.0072 lr:
0.00016484 max_mem: 2458M
[07/21 22:35:15 d2.utils.events]: eta: 1:19:26 iter: 679
total_loss: 0.9298 loss_cls: 0.2222 loss_box_reg: 0.4685
loss_rpn_cls: 0.03032 loss_rpn_loc: 0.1889 time: 0.4993
last_time: 0.4672 data_time: 0.0139 last_data_time: 0.0059 lr:
0.00016983 max_mem: 2458M
[07/21 22:35:25 d2.utils.events]: eta: 1:19:19 iter: 699
total_loss: 0.911 loss_cls: 0.2007 loss_box_reg: 0.4801
loss_rpn_cls: 0.0296 loss_rpn_loc: 0.1951 time: 0.4998 last_time:
0.5585 data_time: 0.0110 last_data_time: 0.0176 lr: 0.00017483
max_mem: 2458M
[07/21 22:35:36 d2.utils.events]: eta: 1:19:17 iter: 719
total_loss: 0.8968 loss_cls: 0.1913 loss_box_reg: 0.4872
loss_rpn_cls: 0.02449 loss_rpn_loc: 0.2039 time: 0.5007
last_time: 0.5274 data_time: 0.0123 last_data_time: 0.0068 lr:
0.00017982 max_mem: 2458M
[07/21 22:35:46 d2.utils.events]: eta: 1:19:07 iter: 739
total_loss: 0.8987 loss_cls: 0.2119 loss_box_reg: 0.4591
loss_rpn_cls: 0.03809 loss_rpn_loc: 0.1906 time: 0.5009
last_time: 0.5136 data_time: 0.0160 last_data_time: 0.0065 lr:
0.00018482 max_mem: 2458M
[07/21 22:35:56 d2.utils.events]: eta: 1:19:00 iter: 759
total_loss: 0.9492 loss_cls: 0.2087 loss_box_reg: 0.4955
loss_rpn_cls: 0.03435 loss_rpn_loc: 0.2022 time: 0.5010
last_time: 0.5260 data_time: 0.0071 last_data_time: 0.0057 lr:
0.00018981 max_mem: 2458M
[07/21 22:36:06 d2.utils.events]: eta: 1:18:51 iter: 779
total_loss: 0.9307 loss_cls: 0.2056 loss_box_reg: 0.4733
loss_rpn_cls: 0.03253 loss_rpn_loc: 0.2116 time: 0.5011
last_time: 0.4590 data_time: 0.0088 last_data_time: 0.0171 lr:
0.00019481 max_mem: 2458M
[07/21 22:36:16 d2.utils.events]: eta: 1:18:45 iter: 799
total_loss: 0.8654 loss_cls: 0.1983 loss_box_reg: 0.4682
loss_rpn_cls: 0.02943 loss_rpn_loc: 0.1851 time: 0.5016
last_time: 0.5207 data_time: 0.0118 last_data_time: 0.0089 lr:
0.0001998 max_mem: 2458M
[07/21 22:36:27 d2.utils.events]: eta: 1:18:37 iter: 819
total_loss: 0.859 loss_cls: 0.1918 loss_box_reg: 0.445
loss_rpn_cls: 0.02559 loss_rpn_loc: 0.1875 time: 0.5019
last_time: 0.5498 data_time: 0.0147 last_data_time: 0.0335 lr:
0.0002048 max_mem: 2458M
```

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[07/21 22:36:37 d2.utils.events]: eta: 1:18:27 iter: 839
total_loss: 0.8946 loss_cls: 0.1892 loss_box_reg: 0.4618
loss_rpn_cls: 0.03624 loss_rpn_loc: 0.1933 time: 0.5018
last_time: 0.5221 data_time: 0.0070 last_data_time: 0.0055 lr:
0.00020979 max_mem: 2458M
[07/21 22:36:47 d2.utils.events]: eta: 1:18:17 iter: 859
total_loss: 0.8943 loss_cls: 0.2002 loss_box_reg: 0.4428
loss_rpn_cls: 0.03519 loss_rpn_loc: 0.2023 time: 0.5019
last_time: 0.4826 data_time: 0.0146 last_data_time: 0.0070 lr:
0.00021479 max_mem: 2458M
[07/21 22:36:57 d2.utils.events]: eta: 1:18:09 iter: 879
total_loss: 0.855 loss_cls: 0.1937 loss_box_reg: 0.4606
loss_rpn_cls: 0.03199 loss_rpn_loc: 0.1878 time: 0.5022
last_time: 0.5541 data_time: 0.0152 last_data_time: 0.0240 lr:
0.00021978 max_mem: 2458M
[07/21 22:37:07 d2.utils.events]: eta: 1:18:02 iter: 899
total_loss: 0.8511 loss_cls: 0.1909 loss_box_reg: 0.4485
loss_rpn_cls: 0.03447 loss_rpn_loc: 0.1841 time: 0.5024
last_time: 0.5303 data_time: 0.0121 last_data_time: 0.0147 lr:
0.00022478 max_mem: 2458M
[07/21 22:37:18 d2.utils.events]: eta: 1:17:53 iter: 919
total_loss: 0.828 loss_cls: 0.176 loss_box_reg: 0.4531
loss_rpn_cls: 0.02516 loss_rpn_loc: 0.1947 time: 0.5026
last_time: 0.4514 data_time: 0.0079 last_data_time: 0.0082 lr:
0.00022977 max_mem: 2458M
[07/21 22:37:28 d2.utils.events]: eta: 1:17:46 iter: 939
total_loss: 0.8493 loss_cls: 0.181 loss_box_reg: 0.4703
loss_rpn_cls: 0.02804 loss_rpn_loc: 0.19 time: 0.5028 last_time:
0.5179 data_time: 0.0144 last_data_time: 0.0079 lr: 0.00023477
max_mem: 2458M
[07/21 22:37:38 d2.utils.events]: eta: 1:17:38 iter: 959
total_loss: 0.8925 loss_cls: 0.2027 loss_box_reg: 0.464
loss_rpn_cls: 0.02989 loss_rpn_loc: 0.2071 time: 0.5031
last_time: 0.5503 data_time: 0.0109 last_data_time: 0.0131 lr:
0.00023976 max_mem: 2458M
[07/21 22:37:49 d2.utils.events]: eta: 1:17:31 iter: 979
total_loss: 0.8376 loss_cls: 0.1759 loss_box_reg: 0.4512
loss_rpn_cls: 0.03147 loss_rpn_loc: 0.2002 time: 0.5037
last_time: 0.5127 data_time: 0.0121 last_data_time: 0.0054 lr:
0.00024476 max_mem: 2458M
[07/21 22:37:59 d2.utils.events]: eta: 1:17:21 iter: 999
total_loss: 0.8677 loss_cls: 0.1803 loss_box_reg: 0.4436
loss_rpn_cls: 0.02854 loss_rpn_loc: 0.1931 time: 0.5036
last_time: 0.4509 data_time: 0.0099 last_data_time: 0.0076 lr:
0.00024975 max_mem: 2458M
[07/21 22:38:09 d2.utils.events]: eta: 1:17:14 iter: 1019
total_loss: 0.8464 loss_cls: 0.1745 loss_box_reg: 0.4595
loss_rpn_cls: 0.02845 loss_rpn_loc: 0.1901 time: 0.5036
last_time: 0.5648 data_time: 0.0111 last_data_time: 0.0347 lr:
0.00025 max_mem: 2458M
```

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[07/21 22:38:19 d2.utils.events]: eta: 1:17:07 iter: 1039
total_loss: 0.856 loss_cls: 0.1767 loss_box_reg: 0.4324
loss_rpn_cls: 0.03682 loss_rpn_loc: 0.1934 time: 0.5037
last_time: 0.5204 data_time: 0.0074 last_data_time: 0.0060 lr:
0.00025 max_mem: 2458M
[07/21 22:38:30 d2.utils.events]: eta: 1:17:01 iter: 1059
total_loss: 0.8565 loss_cls: 0.1818 loss_box_reg: 0.4484
loss_rpn_cls: 0.02621 loss_rpn_loc: 0.1787 time: 0.5039
last_time: 0.5114 data_time: 0.0119 last_data_time: 0.0061 lr:
0.00025 max_mem: 2458M
[07/21 22:38:40 d2.utils.events]: eta: 1:16:54 iter: 1079
total_loss: 0.8238 loss_cls: 0.1723 loss_box_reg: 0.4394
loss_rpn_cls: 0.02353 loss_rpn_loc: 0.1926 time: 0.5041
last_time: 0.5584 data_time: 0.0127 last_data_time: 0.0242 lr:
0.00025 max_mem: 2458M
[07/21 22:38:50 d2.utils.events]: eta: 1:16:45 iter: 1099
total_loss: 0.8588 loss_cls: 0.1751 loss_box_reg: 0.4626
loss_rpn_cls: 0.02417 loss_rpn_loc: 0.1822 time: 0.5039
last_time: 0.4308 data_time: 0.0108 last_data_time: 0.0222 lr:
0.00025 max_mem: 2458M
[07/21 22:39:00 d2.utils.events]: eta: 1:16:38 iter: 1119
total_loss: 0.8049 loss_cls: 0.1751 loss_box_reg: 0.4385
loss_rpn_cls: 0.02631 loss_rpn_loc: 0.1781 time: 0.5041
last_time: 0.5145 data_time: 0.0127 last_data_time: 0.0063 lr:
0.00025 max_mem: 2458M
[07/21 22:39:10 d2.utils.events]: eta: 1:16:30 iter: 1139
total_loss: 0.8873 loss_cls: 0.1833 loss_box_reg: 0.453
loss_rpn_cls: 0.02888 loss_rpn_loc: 0.2105 time: 0.5043
last_time: 0.5317 data_time: 0.0121 last_data_time: 0.0102 lr:
0.00025 max_mem: 2458M
[07/21 22:39:20 d2.utils.events]: eta: 1:16:22 iter: 1159
total_loss: 0.8299 loss_cls: 0.1703 loss_box_reg: 0.4384
loss_rpn_cls: 0.02613 loss_rpn_loc: 0.1918 time: 0.5043
last_time: 0.5272 data_time: 0.0075 last_data_time: 0.0125 lr:
0.00025 max_mem: 2458M
[07/21 22:39:31 d2.utils.events]: eta: 1:16:15 iter: 1179
total_loss: 0.7922 loss_cls: 0.1624 loss_box_reg: 0.4351
loss_rpn_cls: 0.02096 loss_rpn_loc: 0.1822 time: 0.5045
last_time: 0.5261 data_time: 0.0130 last_data_time: 0.0141 lr:
0.00025 max_mem: 2458M
[07/21 22:39:41 d2.utils.events]: eta: 1:16:06 iter: 1199
total_loss: 0.8048 loss_cls: 0.1611 loss_box_reg: 0.4307
loss_rpn_cls: 0.0294 loss_rpn_loc: 0.1816 time: 0.5046 last_time:
0.5123 data_time: 0.0153 last_data_time: 0.0075 lr: 0.00025
max_mem: 2458M
[07/21 22:39:51 d2.utils.events]: eta: 1:15:55 iter: 1219
total_loss: 0.8384 loss_cls: 0.1635 loss_box_reg: 0.4384
loss_rpn_cls: 0.02905 loss_rpn_loc: 0.1756 time: 0.5047
last_time: 0.4903 data_time: 0.0081 last_data_time: 0.0240 lr:
0.00025 max_mem: 2458M
```

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[07/21 22:40:02 d2.utils.events]: eta: 1:15:48 iter: 1239
total_loss: 0.7836 loss_cls: 0.161 loss_box_reg: 0.4183
loss_rpn_cls: 0.02578 loss_rpn_loc: 0.1804 time: 0.5050
last_time: 0.4761 data_time: 0.0111 last_data_time: 0.0075 lr:
0.00025 max_mem: 2458M
[07/21 22:40:12 d2.utils.events]: eta: 1:15:38 iter: 1259
total_loss: 0.805 loss_cls: 0.1626 loss_box_reg: 0.4446
loss_rpn_cls: 0.03216 loss_rpn_loc: 0.1851 time: 0.5051
last_time: 0.4820 data_time: 0.0126 last_data_time: 0.0286 lr:
0.00025 max_mem: 2458M
[07/21 22:40:22 d2.utils.events]: eta: 1:15:28 iter: 1279
total_loss: 0.7901 loss_cls: 0.166 loss_box_reg: 0.4273
loss_rpn_cls: 0.03176 loss_rpn_loc: 0.1736 time: 0.5051
last_time: 0.5213 data_time: 0.0080 last_data_time: 0.0056 lr:
0.00025 max_mem: 2458M
[07/21 22:40:32 d2.utils.events]: eta: 1:15:18 iter: 1299
total_loss: 0.8321 loss_cls: 0.1704 loss_box_reg: 0.4151
loss_rpn_cls: 0.02001 loss_rpn_loc: 0.1843 time: 0.5053
last_time: 0.5220 data_time: 0.0149 last_data_time: 0.0074 lr:
0.00025 max_mem: 2458M
[07/21 22:40:43 d2.utils.events]: eta: 1:15:07 iter: 1319
total_loss: 0.7874 loss_cls: 0.1585 loss_box_reg: 0.4228
loss_rpn_cls: 0.02071 loss_rpn_loc: 0.1791 time: 0.5054
last_time: 0.5159 data_time: 0.0125 last_data_time: 0.0083 lr:
0.00025 max_mem: 2458M
[07/21 22:40:53 d2.utils.events]: eta: 1:14:53 iter: 1339
total_loss: 0.7908 loss_cls: 0.1572 loss_box_reg: 0.4075
loss_rpn_cls: 0.02369 loss_rpn_loc: 0.1847 time: 0.5053
last_time: 0.5350 data_time: 0.0082 last_data_time: 0.0175 lr:
0.00025 max_mem: 2458M
[07/21 22:41:03 d2.utils.events]: eta: 1:14:46 iter: 1359
total_loss: 0.77 loss_cls: 0.1518 loss_box_reg: 0.3887
loss_rpn_cls: 0.02169 loss_rpn_loc: 0.1758 time: 0.5057
last_time: 0.5250 data_time: 0.0142 last_data_time: 0.0185 lr:
0.00025 max_mem: 2458M
[07/21 22:41:14 d2.utils.events]: eta: 1:14:36 iter: 1379
total_loss: 0.7915 loss_cls: 0.1659 loss_box_reg: 0.4188
loss_rpn_cls: 0.02721 loss_rpn_loc: 0.1882 time: 0.5058
last_time: 0.5138 data_time: 0.0176 last_data_time: 0.0090 lr:
0.00025 max_mem: 2458M
[07/21 22:41:24 d2.utils.events]: eta: 1:14:26 iter: 1399
total_loss: 0.845 loss_cls: 0.1589 loss_box_reg: 0.4009
loss_rpn_cls: 0.02588 loss_rpn_loc: 0.1839 time: 0.5058
last_time: 0.4980 data_time: 0.0137 last_data_time: 0.0291 lr:
0.00025 max_mem: 2458M
[07/21 22:41:34 d2.utils.events]: eta: 1:14:16 iter: 1419
total_loss: 0.8012 loss_cls: 0.1588 loss_box_reg: 0.4284
loss_rpn_cls: 0.02304 loss_rpn_loc: 0.1858 time: 0.5057
last_time: 0.5146 data_time: 0.0113 last_data_time: 0.0061 lr:
0.00025 max_mem: 2458M
```

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[07/21 22:41:44 d2.utils.events]: eta: 1:14:05 iter: 1439
total_loss: 0.7622 loss_cls: 0.1635 loss_box_reg: 0.4067
loss_rpn_cls: 0.02172 loss_rpn_loc: 0.1667 time: 0.5056
last_time: 0.4659 data_time: 0.0177 last_data_time: 0.0086 lr:
0.00025 max_mem: 2458M
[07/21 22:41:54 d2.utils.events]: eta: 1:13:55 iter: 1459
total_loss: 0.7969 loss_cls: 0.1595 loss_box_reg: 0.4408
loss_rpn_cls: 0.02774 loss_rpn_loc: 0.176 time: 0.5058 last_time:
0.5309 data_time: 0.0092 last_data_time: 0.0070 lr: 0.00025
max_mem: 2458M
[07/21 22:42:05 d2.utils.events]: eta: 1:13:43 iter: 1479
total_loss: 0.7765 loss_cls: 0.1546 loss_box_reg: 0.4203
loss_rpn_cls: 0.02039 loss_rpn_loc: 0.1678 time: 0.5060
last_time: 0.5394 data_time: 0.0110 last_data_time: 0.0238 lr:
0.00025 max_mem: 2458M
[07/21 22:42:15 d2.utils.events]: eta: 1:13:33 iter: 1499
total_loss: 0.8042 loss_cls: 0.1522 loss_box_reg: 0.4353
loss_rpn_cls: 0.03379 loss_rpn_loc: 0.1935 time: 0.5062
last_time: 0.5172 data_time: 0.0138 last_data_time: 0.0058 lr:
0.00025 max_mem: 2458M
[07/21 22:42:25 d2.utils.events]: eta: 1:13:24 iter: 1519
total_loss: 0.7864 loss_cls: 0.1568 loss_box_reg: 0.4303
loss_rpn_cls: 0.02193 loss_rpn_loc: 0.1655 time: 0.5062
last_time: 0.5321 data_time: 0.0106 last_data_time: 0.0081 lr:
0.00025 max_mem: 2458M
[07/21 22:42:35 d2.utils.events]: eta: 1:13:14 iter: 1539
total_loss: 0.7496 loss_cls: 0.1558 loss_box_reg: 0.3854
loss_rpn_cls: 0.02346 loss_rpn_loc: 0.1711 time: 0.5063
last_time: 0.5307 data_time: 0.0102 last_data_time: 0.0109 lr:
0.00025 max_mem: 2458M
[07/21 22:42:46 d2.utils.events]: eta: 1:13:03 iter: 1559
total_loss: 0.8193 loss_cls: 0.1591 loss_box_reg: 0.4504
loss_rpn_cls: 0.03151 loss_rpn_loc: 0.1731 time: 0.5063
last_time: 0.5159 data_time: 0.0125 last_data_time: 0.0063 lr:
0.00025 max_mem: 2458M
[07/21 22:42:56 d2.utils.events]: eta: 1:12:53 iter: 1579
total_loss: 0.7726 loss_cls: 0.1518 loss_box_reg: 0.4107
loss_rpn_cls: 0.02527 loss_rpn_loc: 0.1759 time: 0.5064
last_time: 0.5239 data_time: 0.0106 last_data_time: 0.0066 lr:
0.00025 max_mem: 2458M
[07/21 22:43:06 d2.utils.events]: eta: 1:12:42 iter: 1599
total_loss: 0.7828 loss_cls: 0.1531 loss_box_reg: 0.4326
loss_rpn_cls: 0.03043 loss_rpn_loc: 0.1813 time: 0.5064
last_time: 0.5376 data_time: 0.0103 last_data_time: 0.0190 lr:
0.00025 max_mem: 2458M
[07/21 22:43:16 d2.utils.events]: eta: 1:12:32 iter: 1619
total_loss: 0.7456 loss_cls: 0.1456 loss_box_reg: 0.3939
loss_rpn_cls: 0.02515 loss_rpn_loc: 0.1804 time: 0.5064
last_time: 0.5160 data_time: 0.0096 last_data_time: 0.0063 lr:
0.00025 max_mem: 2458M
```

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[07/21 22:43:26 d2.utils.events]: eta: 1:12:21 iter: 1639
total_loss: 0.7828 loss_cls: 0.1498 loss_box_reg: 0.4248
loss_rpn_cls: 0.0202 loss_rpn_loc: 0.1764 time: 0.5065 last_time:
0.5184 data_time: 0.0129 last_data_time: 0.0055 lr: 0.00025
max_mem: 2458M
[07/21 22:43:37 d2.utils.events]: eta: 1:12:10 iter: 1659
total_loss: 0.7342 loss_cls: 0.148 loss_box_reg: 0.4094
loss_rpn_cls: 0.02807 loss_rpn_loc: 0.1705 time: 0.5066
last_time: 0.5071 data_time: 0.0105 last_data_time: 0.0298 lr:
0.00025 max_mem: 2458M
[07/21 22:43:47 d2.utils.events]: eta: 1:12:00 iter: 1679
total_loss: 0.7282 loss_cls: 0.1482 loss_box_reg: 0.4004
loss_rpn_cls: 0.02512 loss_rpn_loc: 0.1731 time: 0.5066
last_time: 0.5112 data_time: 0.0094 last_data_time: 0.0056 lr:
0.00025 max_mem: 2458M
[07/21 22:43:57 d2.utils.events]: eta: 1:11:50 iter: 1699
total_loss: 0.7624 loss_cls: 0.1491 loss_box_reg: 0.4102
loss_rpn_cls: 0.03378 loss_rpn_loc: 0.1666 time: 0.5066
last_time: 0.5264 data_time: 0.0150 last_data_time: 0.0088 lr:
0.00025 max_mem: 2458M
[07/21 22:44:07 d2.utils.events]: eta: 1:11:38 iter: 1719
total_loss: 0.7631 loss_cls: 0.1449 loss_box_reg: 0.4035
loss_rpn_cls: 0.02209 loss_rpn_loc: 0.1787 time: 0.5067
last_time: 0.4753 data_time: 0.0133 last_data_time: 0.0057 lr:
0.00025 max_mem: 2458M
[07/21 22:44:18 d2.utils.events]: eta: 1:11:28 iter: 1739
total_loss: 0.7449 loss_cls: 0.1461 loss_box_reg: 0.3817
loss_rpn_cls: 0.02717 loss_rpn_loc: 0.1715 time: 0.5068
last_time: 0.5427 data_time: 0.0121 last_data_time: 0.0142 lr:
0.00025 max_mem: 2458M
[07/21 22:44:28 d2.utils.events]: eta: 1:11:16 iter: 1759
total_loss: 0.7999 loss_cls: 0.1596 loss_box_reg: 0.4245
loss_rpn_cls: 0.03574 loss_rpn_loc: 0.1718 time: 0.5068
last_time: 0.5173 data_time: 0.0131 last_data_time: 0.0074 lr:
0.00025 max_mem: 2458M
[07/21 22:44:38 d2.utils.events]: eta: 1:11:05 iter: 1779
total_loss: 0.7618 loss_cls: 0.1392 loss_box_reg: 0.4051
loss_rpn_cls: 0.02153 loss_rpn_loc: 0.172 time: 0.5068 last_time:
0.5145 data_time: 0.0153 last_data_time: 0.0058 lr: 0.00025
max_mem: 2458M
[07/21 22:44:48 d2.utils.events]: eta: 1:10:53 iter: 1799
total_loss: 0.7549 loss_cls: 0.1478 loss_box_reg: 0.3993
loss_rpn_cls: 0.02156 loss_rpn_loc: 0.1615 time: 0.5066
last_time: 0.4414 data_time: 0.0105 last_data_time: 0.0264 lr:
0.00025 max_mem: 2458M
[07/21 22:44:58 d2.utils.events]: eta: 1:10:41 iter: 1819
total_loss: 0.7541 loss_cls: 0.155 loss_box_reg: 0.4188
loss_rpn_cls: 0.02307 loss_rpn_loc: 0.1721 time: 0.5066
last_time: 0.5228 data_time: 0.0083 last_data_time: 0.0068 lr:
0.00025 max_mem: 2458M
```

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[07/21 22:45:08 d2.utils.events]: eta: 1:10:30 iter: 1839
total_loss: 0.7341 loss_cls: 0.1435 loss_box_reg: 0.4257
loss_rpn_cls: 0.02159 loss_rpn_loc: 0.1617 time: 0.5065
last_time: 0.5196 data_time: 0.0117 last_data_time: 0.0073 lr:
0.00025 max_mem: 2458M
[07/21 22:45:18 d2.utils.events]: eta: 1:10:20 iter: 1859
total_loss: 0.7787 loss_cls: 0.1468 loss_box_reg: 0.4136
loss_rpn_cls: 0.0231 loss_rpn_loc: 0.1796 time: 0.5066 last_time:
0.5362 data_time: 0.0089 last_data_time: 0.0276 lr: 0.00025
max_mem: 2458M
[07/21 22:45:28 d2.utils.events]: eta: 1:10:08 iter: 1879
total_loss: 0.7322 loss_cls: 0.1328 loss_box_reg: 0.388
loss_rpn_cls: 0.02685 loss_rpn_loc: 0.1637 time: 0.5065
last_time: 0.5179 data_time: 0.0087 last_data_time: 0.0057 lr:
0.00025 max_mem: 2458M
[07/21 22:45:39 d2.utils.events]: eta: 1:09:56 iter: 1899
total_loss: 0.7402 loss_cls: 0.1405 loss_box_reg: 0.3776
loss_rpn_cls: 0.02978 loss_rpn_loc: 0.1697 time: 0.5066
last_time: 0.5220 data_time: 0.0132 last_data_time: 0.0079 lr:
0.00025 max_mem: 2458M
[07/21 22:45:49 d2.utils.events]: eta: 1:09:47 iter: 1919
total_loss: 0.6947 loss_cls: 0.1344 loss_box_reg: 0.3836
loss_rpn_cls: 0.025 loss_rpn_loc: 0.1626 time: 0.5068 last_time:
0.5246 data_time: 0.0150 last_data_time: 0.0098 lr: 0.00025
max_mem: 2458M
[07/21 22:45:59 d2.utils.events]: eta: 1:09:36 iter: 1939
total_loss: 0.7708 loss_cls: 0.148 loss_box_reg: 0.4239
loss_rpn_cls: 0.02385 loss_rpn_loc: 0.1581 time: 0.5069
last_time: 0.5347 data_time: 0.0098 last_data_time: 0.0193 lr:
0.00025 max_mem: 2458M
[07/21 22:46:10 d2.utils.events]: eta: 1:09:25 iter: 1959
total_loss: 0.751 loss_cls: 0.1443 loss_box_reg: 0.397
loss_rpn_cls: 0.0214 loss_rpn_loc: 0.1802 time: 0.5070 last_time:
0.5199 data_time: 0.0127 last_data_time: 0.0074 lr: 0.00025
max_mem: 2458M
[07/21 22:46:20 d2.utils.events]: eta: 1:09:14 iter: 1979
total_loss: 0.7642 loss_cls: 0.1378 loss_box_reg: 0.4197
loss_rpn_cls: 0.02025 loss_rpn_loc: 0.1611 time: 0.5070
last_time: 0.5250 data_time: 0.0140 last_data_time: 0.0061 lr:
0.00025 max_mem: 2458M
[07/21 22:46:30 d2.utils.events]: eta: 1:09:04 iter: 1999
total_loss: 0.7241 loss_cls: 0.1425 loss_box_reg: 0.4014
loss_rpn_cls: 0.02313 loss_rpn_loc: 0.1755 time: 0.5070
last_time: 0.4803 data_time: 0.0153 last_data_time: 0.0067 lr:
0.00025 max_mem: 2458M
[07/21 22:46:40 d2.utils.events]: eta: 1:08:53 iter: 2019
total_loss: 0.7408 loss_cls: 0.1353 loss_box_reg: 0.3942
loss_rpn_cls: 0.02272 loss_rpn_loc: 0.172 time: 0.5071 last_time:
0.5192 data_time: 0.0090 last_data_time: 0.0091 lr: 0.00025
max_mem: 2458M
```

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[07/21 22:46:51 d2.utils.events]: eta: 1:08:43 iter: 2039
total_loss: 0.7325 loss_cls: 0.1443 loss_box_reg: 0.4019
loss_rpn_cls: 0.01592 loss_rpn_loc: 0.1647 time: 0.5071
last_time: 0.4732 data_time: 0.0128 last_data_time: 0.0079 lr:
0.00025 max_mem: 2458M
[07/21 22:47:01 d2.utils.events]: eta: 1:08:33 iter: 2059
total_loss: 0.7803 loss_cls: 0.1399 loss_box_reg: 0.397
loss_rpn_cls: 0.02102 loss_rpn_loc: 0.1655 time: 0.5071
last_time: 0.5299 data_time: 0.0125 last_data_time: 0.0210 lr:
0.00025 max_mem: 2458M
[07/21 22:47:11 d2.utils.events]: eta: 1:08:22 iter: 2079
total_loss: 0.7391 loss_cls: 0.1394 loss_box_reg: 0.3976
loss_rpn_cls: 0.01946 loss_rpn_loc: 0.1746 time: 0.5070
last_time: 0.4732 data_time: 0.0096 last_data_time: 0.0303 lr:
0.00025 max_mem: 2458M
[07/21 22:47:21 d2.utils.events]: eta: 1:08:12 iter: 2099
total_loss: 0.7208 loss_cls: 0.1357 loss_box_reg: 0.3975
loss_rpn_cls: 0.02387 loss_rpn_loc: 0.1642 time: 0.5071
last_time: 0.5070 data_time: 0.0131 last_data_time: 0.0059 lr:
0.00025 max_mem: 2458M
[07/21 22:47:31 d2.utils.events]: eta: 1:08:02 iter: 2119
total_loss: 0.7369 loss_cls: 0.1323 loss_box_reg: 0.394
loss_rpn_cls: 0.02481 loss_rpn_loc: 0.1615 time: 0.5071
last_time: 0.4102 data_time: 0.0151 last_data_time: 0.0070 lr:
0.00025 max_mem: 2458M
[07/21 22:47:41 d2.utils.events]: eta: 1:07:51 iter: 2139
total_loss: 0.7454 loss_cls: 0.1399 loss_box_reg: 0.408
loss_rpn_cls: 0.0211 loss_rpn_loc: 0.1632 time: 0.5071 last_time:
0.4750 data_time: 0.0116 last_data_time: 0.0227 lr: 0.00025
max_mem: 2458M
[07/21 22:47:51 d2.utils.events]: eta: 1:07:40 iter: 2159
total_loss: 0.6866 loss_cls: 0.1335 loss_box_reg: 0.3873
loss_rpn_cls: 0.02137 loss_rpn_loc: 0.1595 time: 0.5071
last_time: 0.5159 data_time: 0.0091 last_data_time: 0.0073 lr:
0.00025 max_mem: 2458M
[07/21 22:48:02 d2.utils.events]: eta: 1:07:30 iter: 2179
total_loss: 0.7046 loss_cls: 0.1333 loss_box_reg: 0.3926
loss_rpn_cls: 0.02746 loss_rpn_loc: 0.1574 time: 0.5071
last_time: 0.4668 data_time: 0.0131 last_data_time: 0.0050 lr:
0.00025 max_mem: 2458M
[07/21 22:48:12 d2.utils.events]: eta: 1:07:20 iter: 2199
total_loss: 0.6948 loss_cls: 0.1352 loss_box_reg: 0.3845
loss_rpn_cls: 0.01683 loss_rpn_loc: 0.1538 time: 0.5072
last_time: 0.5208 data_time: 0.0128 last_data_time: 0.0085 lr:
0.00025 max_mem: 2458M
[07/21 22:48:22 d2.utils.events]: eta: 1:07:10 iter: 2219
total_loss: 0.689 loss_cls: 0.1414 loss_box_reg: 0.3812
loss_rpn_cls: 0.01943 loss_rpn_loc: 0.1622 time: 0.5073
last_time: 0.5350 data_time: 0.0090 last_data_time: 0.0241 lr:
0.00025 max_mem: 2458M
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[07/21 22:48:33 d2.utils.events]: eta: 1:06:58 iter: 2239
total_loss: 0.7201 loss_cls: 0.1332 loss_box_reg: 0.381
loss_rpn_cls: 0.02089 loss_rpn_loc: 0.1599 time: 0.5073
last_time: 0.5129 data_time: 0.0126 last_data_time: 0.0056 lr:
0.00025 max_mem: 2458M
[07/21 22:48:43 d2.utils.events]: eta: 1:06:48 iter: 2259
total_loss: 0.7093 loss_cls: 0.1317 loss_box_reg: 0.4025
loss_rpn_cls: 0.02717 loss_rpn_loc: 0.1584 time: 0.5075
last_time: 0.4470 data_time: 0.0205 last_data_time: 0.0058 lr:
0.00025 max_mem: 2458M
[07/21 22:48:53 d2.utils.events]: eta: 1:06:37 iter: 2279
total_loss: 0.7314 loss_cls: 0.1376 loss_box_reg: 0.4098
loss_rpn_cls: 0.01797 loss_rpn_loc: 0.1694 time: 0.5075
last_time: 0.5401 data_time: 0.0111 last_data_time: 0.0259 lr:
0.00025 max_mem: 2458M
[07/21 22:49:03 d2.utils.events]: eta: 1:06:27 iter: 2299
total_loss: 0.7213 loss_cls: 0.1309 loss_box_reg: 0.4153
loss_rpn_cls: 0.02834 loss_rpn_loc: 0.163 time: 0.5075 last_time:
0.5255 data_time: 0.0104 last_data_time: 0.0075 lr: 0.00025
max_mem: 2458M
[07/21 22:49:14 d2.utils.events]: eta: 1:06:17 iter: 2319
total_loss: 0.6421 loss_cls: 0.1156 loss_box_reg: 0.3572
loss_rpn_cls: 0.02321 loss_rpn_loc: 0.1514 time: 0.5075
last_time: 0.4734 data_time: 0.0133 last_data_time: 0.0060 lr:
0.00025 max_mem: 2458M
[07/21 22:49:24 d2.utils.events]: eta: 1:06:07 iter: 2339
total_loss: 0.7324 loss_cls: 0.1361 loss_box_reg: 0.3966
loss_rpn_cls: 0.02579 loss_rpn_loc: 0.1583 time: 0.5076
last_time: 0.5161 data_time: 0.0114 last_data_time: 0.0056 lr:
0.00025 max_mem: 2458M
[07/21 22:49:34 d2.utils.events]: eta: 1:05:56 iter: 2359
total_loss: 0.7431 loss_cls: 0.143 loss_box_reg: 0.4029
loss_rpn_cls: 0.02603 loss_rpn_loc: 0.1728 time: 0.5075
last_time: 0.5098 data_time: 0.0072 last_data_time: 0.0058 lr:
0.00025 max_mem: 2458M
[07/21 22:49:44 d2.utils.events]: eta: 1:05:45 iter: 2379
total_loss: 0.7227 loss_cls: 0.1314 loss_box_reg: 0.4058
loss_rpn_cls: 0.02072 loss_rpn_loc: 0.1514 time: 0.5075
last_time: 0.5205 data_time: 0.0093 last_data_time: 0.0194 lr:
0.00025 max_mem: 2458M
[07/21 22:49:54 d2.utils.events]: eta: 1:05:34 iter: 2399
total_loss: 0.6688 loss_cls: 0.1292 loss_box_reg: 0.3637
loss_rpn_cls: 0.0233 loss_rpn_loc: 0.1559 time: 0.5075 last_time:
0.5206 data_time: 0.0146 last_data_time: 0.0059 lr: 0.00025
max_mem: 2458M
[07/21 22:50:04 d2.utils.events]: eta: 1:05:24 iter: 2419
total_loss: 0.728 loss_cls: 0.1354 loss_box_reg: 0.4058
loss_rpn_cls: 0.01895 loss_rpn_loc: 0.1706 time: 0.5075
last_time: 0.5021 data_time: 0.0066 last_data_time: 0.0079 lr:
```

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0.00025 max_mem: 2458M
[07/21 22:50:15 d2.utils.events]: eta: 1:05:14 iter: 2439
total_loss: 0.6843 loss_cls: 0.1284 loss_box_reg: 0.3846
loss_rpn_cls: 0.01692 loss_rpn_loc: 0.1453 time: 0.5075
last_time: 0.5260 data_time: 0.0083 last_data_time: 0.0091 lr:
0.00025 max_mem: 2458M
[07/21 22:50:25 d2.utils.events]: eta: 1:05:03 iter: 2459
total_loss: 0.6768 loss_cls: 0.1219 loss_box_reg: 0.3942
loss_rpn_cls: 0.01989 loss_rpn_loc: 0.1536 time: 0.5076
last_time: 0.5214 data_time: 0.0132 last_data_time: 0.0071 lr:
0.00025 max_mem: 2458M
[07/21 22:50:35 d2.utils.events]: eta: 1:04:52 iter: 2479
total_loss: 0.6796 loss_cls: 0.1247 loss_box_reg: 0.3882
loss_rpn_cls: 0.01547 loss_rpn_loc: 0.1423 time: 0.5076
last_time: 0.4751 data_time: 0.0078 last_data_time: 0.0059 lr:
0.00025 max_mem: 2458M
[07/21 22:50:45 d2.utils.events]: eta: 1:04:41 iter: 2499
total_loss: 0.7218 loss_cls: 0.1223 loss_box_reg: 0.4064
loss_rpn_cls: 0.02122 loss_rpn_loc: 0.165 time: 0.5076 last_time:
0.5004 data_time: 0.0120 last_data_time: 0.0263 lr: 0.00025
max_mem: 2458M
[07/21 22:50:55 d2.utils.events]: eta: 1:04:31 iter: 2519
total_loss: 0.6999 loss_cls: 0.1267 loss_box_reg: 0.4009
loss_rpn_cls: 0.01905 loss_rpn_loc: 0.1581 time: 0.5075
last_time: 0.4123 data_time: 0.0165 last_data_time: 0.0087 lr:
0.00025 max_mem: 2458M
[07/21 22:51:06 d2.utils.events]: eta: 1:04:20 iter: 2539
total_loss: 0.6741 loss_cls: 0.1248 loss_box_reg: 0.3767
loss_rpn_cls: 0.02345 loss_rpn_loc: 0.1489 time: 0.5076
last_time: 0.4510 data_time: 0.0150 last_data_time: 0.0308 lr:
0.00025 max_mem: 2458M
[07/21 22:51:16 d2.utils.events]: eta: 1:04:10 iter: 2559
total_loss: 0.6973 loss_cls: 0.1246 loss_box_reg: 0.3817
loss_rpn_cls: 0.0232 loss_rpn_loc: 0.1498 time: 0.5076 last_time:
0.5199 data_time: 0.0079 last_data_time: 0.0056 lr: 0.00025
max_mem: 2458M
[07/21 22:51:26 d2.utils.events]: eta: 1:03:59 iter: 2579
total_loss: 0.6817 loss_cls: 0.1267 loss_box_reg: 0.3957
loss_rpn_cls: 0.02564 loss_rpn_loc: 0.1464 time: 0.5077
last_time: 0.5177 data_time: 0.0138 last_data_time: 0.0067 lr:
0.00025 max_mem: 2458M
[07/21 22:51:36 d2.utils.events]: eta: 1:03:49 iter: 2599
total_loss: 0.6783 loss_cls: 0.1165 loss_box_reg: 0.3838
loss_rpn_cls: 0.01911 loss_rpn_loc: 0.1607 time: 0.5077
last_time: 0.5285 data_time: 0.0133 last_data_time: 0.0082 lr:
0.00025 max_mem: 2458M
[07/21 22:51:47 d2.utils.events]: eta: 1:03:39 iter: 2619
total_loss: 0.7049 loss_cls: 0.1264 loss_box_reg: 0.3975
loss_rpn_cls: 0.01989 loss_rpn_loc: 0.1496 time: 0.5077
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last_time: 0.4753 data_time: 0.0089 last_data_time: 0.0055 lr:  
0.00025 max_mem: 2458M  
[07/21 22:51:57 d2.utils.events]: eta: 1:03:28 iter: 2639  
total_loss: 0.6627 loss_cls: 0.1188 loss_box_reg: 0.3551  
loss_rpn_cls: 0.0224 loss_rpn_loc: 0.1498 time: 0.5077 last_time:  
0.5133 data_time: 0.0080 last_data_time: 0.0061 lr: 0.00025  
max_mem: 2458M  
[07/21 22:52:07 d2.utils.events]: eta: 1:03:18 iter: 2659  
total_loss: 0.6884 loss_cls: 0.1374 loss_box_reg: 0.4004  
loss_rpn_cls: 0.01522 loss_rpn_loc: 0.1499 time: 0.5076  
last_time: 0.5277 data_time: 0.0098 last_data_time: 0.0067 lr:  
0.00025 max_mem: 2458M  
[07/21 22:52:17 d2.utils.events]: eta: 1:03:09 iter: 2679  
total_loss: 0.6913 loss_cls: 0.1177 loss_box_reg: 0.3749  
loss_rpn_cls: 0.01816 loss_rpn_loc: 0.1504 time: 0.5077  
last_time: 0.4979 data_time: 0.0107 last_data_time: 0.0280 lr:  
0.00025 max_mem: 2458M  
[07/21 22:52:27 d2.utils.events]: eta: 1:02:58 iter: 2699  
total_loss: 0.6746 loss_cls: 0.1118 loss_box_reg: 0.3833  
loss_rpn_cls: 0.01464 loss_rpn_loc: 0.1484 time: 0.5077  
last_time: 0.5229 data_time: 0.0107 last_data_time: 0.0173 lr:  
0.00025 max_mem: 2458M  
[07/21 22:52:38 d2.utils.events]: eta: 1:02:47 iter: 2719  
total_loss: 0.684 loss_cls: 0.1144 loss_box_reg: 0.3908  
loss_rpn_cls: 0.02132 loss_rpn_loc: 0.1414 time: 0.5077  
last_time: 0.5184 data_time: 0.0168 last_data_time: 0.0087 lr:  
0.00025 max_mem: 2458M  
[07/21 22:52:47 d2.utils.events]: eta: 1:02:37 iter: 2739  
total_loss: 0.6866 loss_cls: 0.1265 loss_box_reg: 0.393  
loss_rpn_cls: 0.02098 loss_rpn_loc: 0.1518 time: 0.5076  
last_time: 0.4804 data_time: 0.0082 last_data_time: 0.0060 lr:  
0.00025 max_mem: 2458M  
[07/21 22:52:58 d2.utils.events]: eta: 1:02:27 iter: 2759  
total_loss: 0.6609 loss_cls: 0.1224 loss_box_reg: 0.3793  
loss_rpn_cls: 0.01558 loss_rpn_loc: 0.1333 time: 0.5076  
last_time: 0.5321 data_time: 0.0121 last_data_time: 0.0073 lr:  
0.00025 max_mem: 2458M  
[07/21 22:53:08 d2.utils.events]: eta: 1:02:17 iter: 2779  
total_loss: 0.6856 loss_cls: 0.1285 loss_box_reg: 0.3868  
loss_rpn_cls: 0.01926 loss_rpn_loc: 0.1463 time: 0.5076  
last_time: 0.4680 data_time: 0.0117 last_data_time: 0.0065 lr:  
0.00025 max_mem: 2458M  
[07/21 22:53:18 d2.utils.events]: eta: 1:02:08 iter: 2799  
total_loss: 0.663 loss_cls: 0.1246 loss_box_reg: 0.3683  
loss_rpn_cls: 0.01361 loss_rpn_loc: 0.1506 time: 0.5076  
last_time: 0.4689 data_time: 0.0116 last_data_time: 0.0055 lr:  
0.00025 max_mem: 2458M  
[07/21 22:53:28 d2.utils.events]: eta: 1:01:58 iter: 2819  
total_loss: 0.6722 loss_cls: 0.1086 loss_box_reg: 0.3846
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loss_rpn_cls: 0.02031 loss_rpn_loc: 0.1388 time: 0.5076
last_time: 0.5278 data_time: 0.0086 last_data_time: 0.0175 lr:
0.00025 max_mem: 2458M
[07/21 22:53:38 d2.utils.events]: eta: 1:01:49 iter: 2839
total_loss: 0.6711 loss_cls: 0.1181 loss_box_reg: 0.3933
loss_rpn_cls: 0.02 loss_rpn_loc: 0.1428 time: 0.5076 last_time:
0.5230 data_time: 0.0080 last_data_time: 0.0060 lr: 0.00025
max_mem: 2458M
[07/21 22:53:49 d2.utils.events]: eta: 1:01:38 iter: 2859
total_loss: 0.669 loss_cls: 0.1281 loss_box_reg: 0.3787
loss_rpn_cls: 0.01827 loss_rpn_loc: 0.1501 time: 0.5076
last_time: 0.5115 data_time: 0.0163 last_data_time: 0.0061 lr:
0.00025 max_mem: 2458M
[07/21 22:53:59 d2.utils.events]: eta: 1:01:30 iter: 2879
total_loss: 0.6577 loss_cls: 0.1137 loss_box_reg: 0.3887
loss_rpn_cls: 0.01845 loss_rpn_loc: 0.1394 time: 0.5077
last_time: 0.5502 data_time: 0.0148 last_data_time: 0.0312 lr:
0.00025 max_mem: 2458M
[07/21 22:54:09 d2.utils.events]: eta: 1:01:19 iter: 2899
total_loss: 0.679 loss_cls: 0.1215 loss_box_reg: 0.3882
loss_rpn_cls: 0.01823 loss_rpn_loc: 0.1505 time: 0.5077
last_time: 0.5170 data_time: 0.0085 last_data_time: 0.0067 lr:
0.00025 max_mem: 2458M
[07/21 22:54:19 d2.utils.events]: eta: 1:01:07 iter: 2919
total_loss: 0.6745 loss_cls: 0.1152 loss_box_reg: 0.3903
loss_rpn_cls: 0.01798 loss_rpn_loc: 0.1493 time: 0.5077
last_time: 0.4520 data_time: 0.0136 last_data_time: 0.0059 lr:
0.00025 max_mem: 2458M
[07/21 22:54:29 d2.utils.events]: eta: 1:00:56 iter: 2939
total_loss: 0.6801 loss_cls: 0.1177 loss_box_reg: 0.3918
loss_rpn_cls: 0.0189 loss_rpn_loc: 0.1418 time: 0.5077 last_time:
0.5190 data_time: 0.0108 last_data_time: 0.0075 lr: 0.00025
max_mem: 2458M
[07/21 22:54:39 d2.utils.events]: eta: 1:00:45 iter: 2959
total_loss: 0.6534 loss_cls: 0.1161 loss_box_reg: 0.3748
loss_rpn_cls: 0.01576 loss_rpn_loc: 0.1447 time: 0.5077
last_time: 0.4926 data_time: 0.0105 last_data_time: 0.0304 lr:
0.00025 max_mem: 2458M
[07/21 22:54:50 d2.utils.events]: eta: 1:00:35 iter: 2979
total_loss: 0.6531 loss_cls: 0.109 loss_box_reg: 0.36 loss_rpn_cls:
0.02089 loss_rpn_loc: 0.1473 time: 0.5077 last_time: 0.4696
data_time: 0.0092 last_data_time: 0.0062 lr: 0.00025 max_mem:
2458M
[07/21 22:55:00 d2.utils.events]: eta: 1:00:25 iter: 2999
total_loss: 0.6297 loss_cls: 0.1056 loss_box_reg: 0.3745
loss_rpn_cls: 0.01877 loss_rpn_loc: 0.1354 time: 0.5077
last_time: 0.4520 data_time: 0.0131 last_data_time: 0.0077 lr:
0.00025 max_mem: 2458M
[07/21 22:55:10 d2.utils.events]: eta: 1:00:15 iter: 3019
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total_loss: 0.6592 loss_cls: 0.1126 loss_box_reg: 0.3792
loss_rpn_cls: 0.02312 loss_rpn_loc: 0.1447 time: 0.5077
last_time: 0.4664 data_time: 0.0176 last_data_time: 0.0228 lr:
0.00025 max_mem: 2458M
[07/21 22:55:20 d2.utils.events]: eta: 1:00:04 iter: 3039
total_loss: 0.6546 loss_cls: 0.1119 loss_box_reg: 0.3676
loss_rpn_cls: 0.01915 loss_rpn_loc: 0.1481 time: 0.5077
last_time: 0.4686 data_time: 0.0078 last_data_time: 0.0057 lr:
0.00025 max_mem: 2458M
[07/21 22:55:31 d2.utils.events]: eta: 0:59:54 iter: 3059
total_loss: 0.6554 loss_cls: 0.113 loss_box_reg: 0.3797
loss_rpn_cls: 0.02136 loss_rpn_loc: 0.1398 time: 0.5078
last_time: 0.4629 data_time: 0.0098 last_data_time: 0.0064 lr:
0.00025 max_mem: 2458M
[07/21 22:55:41 d2.utils.events]: eta: 0:59:43 iter: 3079
total_loss: 0.6814 loss_cls: 0.1164 loss_box_reg: 0.375
loss_rpn_cls: 0.01904 loss_rpn_loc: 0.1617 time: 0.5078
last_time: 0.4156 data_time: 0.0125 last_data_time: 0.0068 lr:
0.00025 max_mem: 2458M
[07/21 22:55:51 d2.utils.events]: eta: 0:59:33 iter: 3099
total_loss: 0.6622 loss_cls: 0.1172 loss_box_reg: 0.3722
loss_rpn_cls: 0.02231 loss_rpn_loc: 0.1461 time: 0.5077
last_time: 0.5342 data_time: 0.0076 last_data_time: 0.0117 lr:
0.00025 max_mem: 2458M
[07/21 22:56:01 d2.utils.events]: eta: 0:59:22 iter: 3119
total_loss: 0.6231 loss_cls: 0.1168 loss_box_reg: 0.3494
loss_rpn_cls: 0.01544 loss_rpn_loc: 0.1381 time: 0.5077
last_time: 0.5185 data_time: 0.0111 last_data_time: 0.0073 lr:
0.00025 max_mem: 2458M
[07/21 22:56:11 d2.utils.events]: eta: 0:59:12 iter: 3139
total_loss: 0.6436 loss_cls: 0.1129 loss_box_reg: 0.3718
loss_rpn_cls: 0.01399 loss_rpn_loc: 0.1364 time: 0.5077
last_time: 0.5175 data_time: 0.0082 last_data_time: 0.0093 lr:
0.00025 max_mem: 2458M
[07/21 22:56:21 d2.utils.events]: eta: 0:59:02 iter: 3159
total_loss: 0.6379 loss_cls: 0.1159 loss_box_reg: 0.3735
loss_rpn_cls: 0.01726 loss_rpn_loc: 0.1324 time: 0.5078
last_time: 0.5251 data_time: 0.0112 last_data_time: 0.0067 lr:
0.00025 max_mem: 2458M
[07/21 22:56:31 d2.utils.events]: eta: 0:58:51 iter: 3179
total_loss: 0.6252 loss_cls: 0.1085 loss_box_reg: 0.364
loss_rpn_cls: 0.01646 loss_rpn_loc: 0.131 time: 0.5077 last_time:
0.5128 data_time: 0.0094 last_data_time: 0.0058 lr: 0.00025
max_mem: 2458M
[07/21 22:56:42 d2.utils.events]: eta: 0:58:41 iter: 3199
total_loss: 0.6664 loss_cls: 0.1211 loss_box_reg: 0.3834
loss_rpn_cls: 0.01987 loss_rpn_loc: 0.1428 time: 0.5078
last_time: 0.5049 data_time: 0.0109 last_data_time: 0.0054 lr:
0.00025 max_mem: 2458M
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[07/21 22:56:52 d2.utils.events]: eta: 0:58:31 iter: 3219
total_loss: 0.6417 loss_cls: 0.1163 loss_box_reg: 0.3756
loss_rpn_cls: 0.02406 loss_rpn_loc: 0.1298 time: 0.5077
last_time: 0.5248 data_time: 0.0123 last_data_time: 0.0059 lr:
0.00025 max_mem: 2458M
[07/21 22:57:02 d2.utils.events]: eta: 0:58:20 iter: 3239
total_loss: 0.6563 loss_cls: 0.111 loss_box_reg: 0.3728
loss_rpn_cls: 0.02076 loss_rpn_loc: 0.1562 time: 0.5077
last_time: 0.4480 data_time: 0.0070 last_data_time: 0.0067 lr:
0.00025 max_mem: 2458M
[07/21 22:57:12 d2.utils.events]: eta: 0:58:10 iter: 3259
total_loss: 0.6093 loss_cls: 0.1063 loss_box_reg: 0.367
loss_rpn_cls: 0.01648 loss_rpn_loc: 0.1336 time: 0.5078
last_time: 0.5129 data_time: 0.0176 last_data_time: 0.0053 lr:
0.00025 max_mem: 2458M
[07/21 22:57:23 d2.utils.events]: eta: 0:58:01 iter: 3279
total_loss: 0.6279 loss_cls: 0.111 loss_box_reg: 0.3613
loss_rpn_cls: 0.0175 loss_rpn_loc: 0.1359 time: 0.5079 last_time:
0.5259 data_time: 0.0136 last_data_time: 0.0066 lr: 0.00025
max_mem: 2458M
[07/21 22:57:33 d2.utils.events]: eta: 0:57:50 iter: 3299
total_loss: 0.6277 loss_cls: 0.1066 loss_box_reg: 0.3557
loss_rpn_cls: 0.01718 loss_rpn_loc: 0.1409 time: 0.5079
last_time: 0.5372 data_time: 0.0106 last_data_time: 0.0213 lr:
0.00025 max_mem: 2458M
[07/21 22:57:43 d2.utils.events]: eta: 0:57:39 iter: 3319
total_loss: 0.6267 loss_cls: 0.1087 loss_box_reg: 0.3535
loss_rpn_cls: 0.02209 loss_rpn_loc: 0.1445 time: 0.5079
last_time: 0.4477 data_time: 0.0083 last_data_time: 0.0078 lr:
0.00025 max_mem: 2458M
[07/21 22:57:53 d2.utils.events]: eta: 0:57:29 iter: 3339
total_loss: 0.6047 loss_cls: 0.104 loss_box_reg: 0.3451
loss_rpn_cls: 0.02107 loss_rpn_loc: 0.1297 time: 0.5079
last_time: 0.4533 data_time: 0.0156 last_data_time: 0.0076 lr:
0.00025 max_mem: 2458M
[07/21 22:58:04 d2.utils.events]: eta: 0:57:19 iter: 3359
total_loss: 0.6339 loss_cls: 0.1115 loss_box_reg: 0.3526
loss_rpn_cls: 0.02169 loss_rpn_loc: 0.143 time: 0.5080 last_time:
0.5109 data_time: 0.0141 last_data_time: 0.0060 lr: 0.00025
max_mem: 2458M
[07/21 22:58:14 d2.utils.events]: eta: 0:57:08 iter: 3379
total_loss: 0.6102 loss_cls: 0.1124 loss_box_reg: 0.3636
loss_rpn_cls: 0.01652 loss_rpn_loc: 0.1357 time: 0.5079
last_time: 0.5323 data_time: 0.0069 last_data_time: 0.0140 lr:
0.00025 max_mem: 2458M
[07/21 22:58:24 d2.utils.events]: eta: 0:56:58 iter: 3399
total_loss: 0.5931 loss_cls: 0.1065 loss_box_reg: 0.3492
loss_rpn_cls: 0.02267 loss_rpn_loc: 0.1252 time: 0.5080
last_time: 0.4788 data_time: 0.0095 last_data_time: 0.0069 lr:
```

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0.00025 max_mem: 2458M
[07/21 22:58:34 d2.utils.events]: eta: 0:56:48 iter: 3419
total_loss: 0.6286 loss_cls: 0.1134 loss_box_reg: 0.3676
loss_rpn_cls: 0.01835 loss_rpn_loc: 0.1373 time: 0.5080
last_time: 0.4669 data_time: 0.0137 last_data_time: 0.0058 lr:
0.00025 max_mem: 2458M
[07/21 22:58:44 d2.utils.events]: eta: 0:56:37 iter: 3439
total_loss: 0.6414 loss_cls: 0.1044 loss_box_reg: 0.3641
loss_rpn_cls: 0.02122 loss_rpn_loc: 0.1455 time: 0.5079
last_time: 0.4869 data_time: 0.0098 last_data_time: 0.0262 lr:
0.00025 max_mem: 2458M
[07/21 22:58:55 d2.utils.events]: eta: 0:56:26 iter: 3459
total_loss: 0.5985 loss_cls: 0.105 loss_box_reg: 0.3514
loss_rpn_cls: 0.01939 loss_rpn_loc: 0.1376 time: 0.5079
last_time: 0.4500 data_time: 0.0099 last_data_time: 0.0057 lr:
0.00025 max_mem: 2458M
[07/21 22:59:05 d2.utils.events]: eta: 0:56:16 iter: 3479
total_loss: 0.6459 loss_cls: 0.1155 loss_box_reg: 0.3887
loss_rpn_cls: 0.01447 loss_rpn_loc: 0.1302 time: 0.5080
last_time: 0.5209 data_time: 0.0139 last_data_time: 0.0049 lr:
0.00025 max_mem: 2458M
[07/21 22:59:15 d2.utils.events]: eta: 0:56:06 iter: 3499
total_loss: 0.5886 loss_cls: 0.09782 loss_box_reg: 0.3419
loss_rpn_cls: 0.01615 loss_rpn_loc: 0.1369 time: 0.5080
last_time: 0.5213 data_time: 0.0123 last_data_time: 0.0263 lr:
0.00025 max_mem: 2458M
[07/21 22:59:25 d2.utils.events]: eta: 0:55:55 iter: 3519
total_loss: 0.6014 loss_cls: 0.1028 loss_box_reg: 0.3523
loss_rpn_cls: 0.01362 loss_rpn_loc: 0.1208 time: 0.5080
last_time: 0.4664 data_time: 0.0095 last_data_time: 0.0057 lr:
0.00025 max_mem: 2458M
[07/21 22:59:35 d2.utils.events]: eta: 0:55:45 iter: 3539
total_loss: 0.6375 loss_cls: 0.1152 loss_box_reg: 0.3632
loss_rpn_cls: 0.0172 loss_rpn_loc: 0.1321 time: 0.5080 last_time:
0.4560 data_time: 0.0130 last_data_time: 0.0062 lr: 0.00025
max_mem: 2458M
[07/21 22:59:46 d2.utils.events]: eta: 0:55:35 iter: 3559
total_loss: 0.5757 loss_cls: 0.1026 loss_box_reg: 0.3313
loss_rpn_cls: 0.0147 loss_rpn_loc: 0.1256 time: 0.5080 last_time:
0.5432 data_time: 0.0140 last_data_time: 0.0255 lr: 0.00025
max_mem: 2458M
[07/21 22:59:56 d2.utils.events]: eta: 0:55:24 iter: 3579
total_loss: 0.6188 loss_cls: 0.1038 loss_box_reg: 0.356
loss_rpn_cls: 0.01502 loss_rpn_loc: 0.1334 time: 0.5080
last_time: 0.4724 data_time: 0.0073 last_data_time: 0.0073 lr:
0.00025 max_mem: 2458M
[07/21 23:00:06 d2.utils.events]: eta: 0:55:14 iter: 3599
total_loss: 0.6249 loss_cls: 0.1095 loss_box_reg: 0.375
loss_rpn_cls: 0.01961 loss_rpn_loc: 0.1302 time: 0.5080
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last_time: 0.5197 data_time: 0.0086 last_data_time: 0.0067 lr:  
0.00025 max_mem: 2458M  
[07/21 23:00:16 d2.utils.events]: eta: 0:55:03 iter: 3619  
total_loss: 0.5559 loss_cls: 0.09878 loss_box_reg: 0.3191  
loss_rpn_cls: 0.01932 loss_rpn_loc: 0.1342 time: 0.5080  
last_time: 0.4576 data_time: 0.0101 last_data_time: 0.0069 lr:  
0.00025 max_mem: 2458M  
[07/21 23:00:26 d2.utils.events]: eta: 0:54:53 iter: 3639  
total_loss: 0.6034 loss_cls: 0.1059 loss_box_reg: 0.345  
loss_rpn_cls: 0.01618 loss_rpn_loc: 0.1314 time: 0.5080  
last_time: 0.5372 data_time: 0.0103 last_data_time: 0.0187 lr:  
0.00025 max_mem: 2458M  
[07/21 23:00:37 d2.utils.events]: eta: 0:54:42 iter: 3659  
total_loss: 0.6093 loss_cls: 0.1036 loss_box_reg: 0.3485  
loss_rpn_cls: 0.01371 loss_rpn_loc: 0.1245 time: 0.5080  
last_time: 0.5218 data_time: 0.0130 last_data_time: 0.0068 lr:  
0.00025 max_mem: 2458M  
[07/21 23:00:47 d2.utils.events]: eta: 0:54:31 iter: 3679  
total_loss: 0.6001 loss_cls: 0.09996 loss_box_reg: 0.3553  
loss_rpn_cls: 0.02489 loss_rpn_loc: 0.1288 time: 0.5081  
last_time: 0.5148 data_time: 0.0136 last_data_time: 0.0062 lr:  
0.00025 max_mem: 2458M  
[07/21 23:00:57 d2.utils.events]: eta: 0:54:20 iter: 3699  
total_loss: 0.5588 loss_cls: 0.1016 loss_box_reg: 0.3351  
loss_rpn_cls: 0.01973 loss_rpn_loc: 0.1197 time: 0.5081  
last_time: 0.5248 data_time: 0.0094 last_data_time: 0.0068 lr:  
0.00025 max_mem: 2458M  
[07/21 23:01:07 d2.utils.events]: eta: 0:54:09 iter: 3719  
total_loss: 0.585 loss_cls: 0.1024 loss_box_reg: 0.338  
loss_rpn_cls: 0.02127 loss_rpn_loc: 0.1294 time: 0.5080  
last_time: 0.4805 data_time: 0.0074 last_data_time: 0.0100 lr:  
0.00025 max_mem: 2458M  
[07/21 23:01:18 d2.utils.events]: eta: 0:54:00 iter: 3739  
total_loss: 0.5508 loss_cls: 0.09285 loss_box_reg: 0.3185  
loss_rpn_cls: 0.01475 loss_rpn_loc: 0.1193 time: 0.5081  
last_time: 0.5274 data_time: 0.0146 last_data_time: 0.0055 lr:  
0.00025 max_mem: 2458M  
[07/21 23:01:28 d2.utils.events]: eta: 0:53:50 iter: 3759  
total_loss: 0.6098 loss_cls: 0.1014 loss_box_reg: 0.3578  
loss_rpn_cls: 0.02056 loss_rpn_loc: 0.128 time: 0.5081 last_time:  
0.5173 data_time: 0.0129 last_data_time: 0.0055 lr: 0.00025  
max_mem: 2458M  
[07/21 23:01:38 d2.utils.events]: eta: 0:53:39 iter: 3779  
total_loss: 0.578 loss_cls: 0.09747 loss_box_reg: 0.3359  
loss_rpn_cls: 0.0208 loss_rpn_loc: 0.1197 time: 0.5081 last_time:  
0.5233 data_time: 0.0094 last_data_time: 0.0060 lr: 0.00025  
max_mem: 2458M  
[07/21 23:01:48 d2.utils.events]: eta: 0:53:29 iter: 3799  
total_loss: 0.5711 loss_cls: 0.0971 loss_box_reg: 0.3284
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loss_rpn_cls: 0.01594 loss_rpn_loc: 0.1232 time: 0.5081
last_time: 0.5137 data_time: 0.0111 last_data_time: 0.0057 lr:
0.00025 max_mem: 2458M
[07/21 23:01:59 d2.utils.events]: eta: 0:53:17 iter: 3819
total_loss: 0.5764 loss_cls: 0.09616 loss_box_reg: 0.346
loss_rpn_cls: 0.01513 loss_rpn_loc: 0.1169 time: 0.5082
last_time: 0.5164 data_time: 0.0118 last_data_time: 0.0083 lr:
0.00025 max_mem: 2458M
[07/21 23:02:09 d2.utils.events]: eta: 0:53:07 iter: 3839
total_loss: 0.5772 loss_cls: 0.101 loss_box_reg: 0.3459
loss_rpn_cls: 0.01768 loss_rpn_loc: 0.1176 time: 0.5082
last_time: 0.5327 data_time: 0.0124 last_data_time: 0.0100 lr:
0.00025 max_mem: 2458M
[07/21 23:02:19 d2.utils.events]: eta: 0:52:56 iter: 3859
total_loss: 0.5774 loss_cls: 0.102 loss_box_reg: 0.3403
loss_rpn_cls: 0.01151 loss_rpn_loc: 0.1308 time: 0.5082
last_time: 0.5156 data_time: 0.0068 last_data_time: 0.0063 lr:
0.00025 max_mem: 2458M
[07/21 23:02:30 d2.utils.events]: eta: 0:52:46 iter: 3879
total_loss: 0.5508 loss_cls: 0.09574 loss_box_reg: 0.3285
loss_rpn_cls: 0.01544 loss_rpn_loc: 0.1147 time: 0.5083
last_time: 0.4762 data_time: 0.0142 last_data_time: 0.0063 lr:
0.00025 max_mem: 2458M
[07/21 23:02:39 d2.utils.events]: eta: 0:52:36 iter: 3899
total_loss: 0.5943 loss_cls: 0.1006 loss_box_reg: 0.3331
loss_rpn_cls: 0.0205 loss_rpn_loc: 0.1304 time: 0.5082 last_time:
0.4561 data_time: 0.0098 last_data_time: 0.0176 lr: 0.00025
max_mem: 2458M
[07/21 23:02:50 d2.utils.events]: eta: 0:52:25 iter: 3919
total_loss: 0.5274 loss_cls: 0.09733 loss_box_reg: 0.3075
loss_rpn_cls: 0.01412 loss_rpn_loc: 0.1153 time: 0.5082
last_time: 0.5270 data_time: 0.0067 last_data_time: 0.0092 lr:
0.00025 max_mem: 2458M
[07/21 23:03:00 d2.utils.events]: eta: 0:52:15 iter: 3939
total_loss: 0.5711 loss_cls: 0.09433 loss_box_reg: 0.3212
loss_rpn_cls: 0.02101 loss_rpn_loc: 0.1326 time: 0.5082
last_time: 0.5203 data_time: 0.0124 last_data_time: 0.0070 lr:
0.00025 max_mem: 2458M
[07/21 23:03:10 d2.utils.events]: eta: 0:52:05 iter: 3959
total_loss: 0.5612 loss_cls: 0.09621 loss_box_reg: 0.3219
loss_rpn_cls: 0.02365 loss_rpn_loc: 0.1203 time: 0.5082
last_time: 0.5348 data_time: 0.0118 last_data_time: 0.0230 lr:
0.00025 max_mem: 2458M
[07/21 23:03:20 d2.utils.events]: eta: 0:51:54 iter: 3979
total_loss: 0.6119 loss_cls: 0.1029 loss_box_reg: 0.3499
loss_rpn_cls: 0.01405 loss_rpn_loc: 0.133 time: 0.5082 last_time:
0.5276 data_time: 0.0112 last_data_time: 0.0058 lr: 0.00025
max_mem: 2458M
[07/21 23:03:31 d2.utils.events]: eta: 0:51:44 iter: 3999
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total_loss: 0.5711 loss_cls: 0.09444 loss_box_reg: 0.334
loss_rpn_cls: 0.0172 loss_rpn_loc: 0.1321 time: 0.5082 last_time:
0.4804 data_time: 0.0143 last_data_time: 0.0052 lr: 0.00025
max_mem: 2458M
[07/21 23:03:41 d2.utils.events]: eta: 0:51:33 iter: 4019
total_loss: 0.5852 loss_cls: 0.09154 loss_box_reg: 0.3411
loss_rpn_cls: 0.01461 loss_rpn_loc: 0.1209 time: 0.5082
last_time: 0.5118 data_time: 0.0127 last_data_time: 0.0070 lr:
0.00025 max_mem: 2458M
[07/21 23:03:50 d2.utils.events]: eta: 0:51:23 iter: 4039
total_loss: 0.6013 loss_cls: 0.1034 loss_box_reg: 0.3411
loss_rpn_cls: 0.01936 loss_rpn_loc: 0.1392 time: 0.5081
last_time: 0.5048 data_time: 0.0105 last_data_time: 0.0071 lr:
0.00025 max_mem: 2458M
[07/21 23:04:00 d2.utils.events]: eta: 0:51:12 iter: 4059
total_loss: 0.5767 loss_cls: 0.08522 loss_box_reg: 0.3211
loss_rpn_cls: 0.01788 loss_rpn_loc: 0.1232 time: 0.5081
last_time: 0.4876 data_time: 0.0073 last_data_time: 0.0156 lr:
0.00025 max_mem: 2458M
[07/21 23:04:11 d2.utils.events]: eta: 0:51:01 iter: 4079
total_loss: 0.555 loss_cls: 0.08788 loss_box_reg: 0.3291
loss_rpn_cls: 0.01938 loss_rpn_loc: 0.1116 time: 0.5081
last_time: 0.5126 data_time: 0.0148 last_data_time: 0.0061 lr:
0.00025 max_mem: 2458M
[07/21 23:04:21 d2.utils.events]: eta: 0:50:51 iter: 4099
total_loss: 0.563 loss_cls: 0.09237 loss_box_reg: 0.3169
loss_rpn_cls: 0.01881 loss_rpn_loc: 0.1161 time: 0.5081
last_time: 0.4692 data_time: 0.0123 last_data_time: 0.0068 lr:
0.00025 max_mem: 2458M
[07/21 23:04:31 d2.utils.events]: eta: 0:50:41 iter: 4119
total_loss: 0.5881 loss_cls: 0.09929 loss_box_reg: 0.3456
loss_rpn_cls: 0.01719 loss_rpn_loc: 0.1229 time: 0.5080
last_time: 0.4763 data_time: 0.0121 last_data_time: 0.0291 lr:
0.00025 max_mem: 2458M
[07/21 23:04:41 d2.utils.events]: eta: 0:50:30 iter: 4139
total_loss: 0.5725 loss_cls: 0.09302 loss_box_reg: 0.3377
loss_rpn_cls: 0.01698 loss_rpn_loc: 0.1241 time: 0.5080
last_time: 0.4807 data_time: 0.0091 last_data_time: 0.0142 lr:
0.00025 max_mem: 2458M
[07/21 23:04:51 d2.utils.events]: eta: 0:50:20 iter: 4159
total_loss: 0.552 loss_cls: 0.09213 loss_box_reg: 0.3107
loss_rpn_cls: 0.01845 loss_rpn_loc: 0.1225 time: 0.5080
last_time: 0.4759 data_time: 0.0132 last_data_time: 0.0194 lr:
0.00025 max_mem: 2458M
[07/21 23:05:01 d2.utils.events]: eta: 0:50:10 iter: 4179
total_loss: 0.5632 loss_cls: 0.08905 loss_box_reg: 0.3248
loss_rpn_cls: 0.01753 loss_rpn_loc: 0.1153 time: 0.5080
last_time: 0.5211 data_time: 0.0112 last_data_time: 0.0071 lr:
0.00025 max_mem: 2458M
[07/21 23:05:11 d2.utils.events]: eta: 0:49:59 iter: 4199
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total_loss: 0.53 loss_cls: 0.0908 loss_box_reg: 0.3187
loss_rpn_cls: 0.01647 loss_rpn_loc: 0.1127 time: 0.5080
last_time: 0.5124 data_time: 0.0082 last_data_time: 0.0052 lr:
0.00025 max_mem: 2458M
[07/21 23:05:22 d2.utils.events]: eta: 0:49:49 iter: 4219
total_loss: 0.5475 loss_cls: 0.08983 loss_box_reg: 0.3206
loss_rpn_cls: 0.01663 loss_rpn_loc: 0.1128 time: 0.5081
last_time: 0.5228 data_time: 0.0116 last_data_time: 0.0089 lr:
0.00025 max_mem: 2458M
[07/21 23:05:32 d2.utils.events]: eta: 0:49:39 iter: 4239
total_loss: 0.5566 loss_cls: 0.08484 loss_box_reg: 0.3255
loss_rpn_cls: 0.02 loss_rpn_loc: 0.1166 time: 0.5081 last_time:
0.5588 data_time: 0.0184 last_data_time: 0.0297 lr: 0.00025
max_mem: 2458M
[07/21 23:05:42 d2.utils.events]: eta: 0:49:28 iter: 4259
total_loss: 0.5431 loss_cls: 0.08491 loss_box_reg: 0.3096
loss_rpn_cls: 0.01608 loss_rpn_loc: 0.118 time: 0.5081 last_time:
0.5131 data_time: 0.0092 last_data_time: 0.0100 lr: 0.00025
max_mem: 2458M
[07/21 23:05:53 d2.utils.events]: eta: 0:49:18 iter: 4279
total_loss: 0.5508 loss_cls: 0.09591 loss_box_reg: 0.3312
loss_rpn_cls: 0.01365 loss_rpn_loc: 0.1171 time: 0.5081
last_time: 0.5235 data_time: 0.0101 last_data_time: 0.0053 lr:
0.00025 max_mem: 2458M
[07/21 23:06:03 d2.utils.events]: eta: 0:49:08 iter: 4299
total_loss: 0.5263 loss_cls: 0.08608 loss_box_reg: 0.3188
loss_rpn_cls: 0.01324 loss_rpn_loc: 0.1169 time: 0.5081
last_time: 0.4728 data_time: 0.0138 last_data_time: 0.0067 lr:
0.00025 max_mem: 2458M
[07/21 23:06:13 d2.utils.events]: eta: 0:48:57 iter: 4319
total_loss: 0.5397 loss_cls: 0.09024 loss_box_reg: 0.3029
loss_rpn_cls: 0.01798 loss_rpn_loc: 0.1162 time: 0.5081
last_time: 0.5379 data_time: 0.0078 last_data_time: 0.0194 lr:
0.00025 max_mem: 2458M
[07/21 23:06:23 d2.utils.events]: eta: 0:48:47 iter: 4339
total_loss: 0.5556 loss_cls: 0.09428 loss_box_reg: 0.3104
loss_rpn_cls: 0.0176 loss_rpn_loc: 0.1196 time: 0.5082 last_time:
0.5215 data_time: 0.0108 last_data_time: 0.0049 lr: 0.00025
max_mem: 2458M
[07/21 23:06:34 d2.utils.events]: eta: 0:48:37 iter: 4359
total_loss: 0.5107 loss_cls: 0.08556 loss_box_reg: 0.2889
loss_rpn_cls: 0.01345 loss_rpn_loc: 0.1114 time: 0.5082
last_time: 0.5148 data_time: 0.0122 last_data_time: 0.0057 lr:
0.00025 max_mem: 2458M
[07/21 23:06:44 d2.utils.events]: eta: 0:48:26 iter: 4379
total_loss: 0.5434 loss_cls: 0.08481 loss_box_reg: 0.3206
loss_rpn_cls: 0.01721 loss_rpn_loc: 0.1168 time: 0.5082
last_time: 0.5350 data_time: 0.0101 last_data_time: 0.0191 lr:
0.00025 max_mem: 2458M
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[07/21 23:06:54 d2.utils.events]: eta: 0:48:16 iter: 4399
total_loss: 0.5556 loss_cls: 0.08626 loss_box_reg: 0.3153
loss_rpn_cls: 0.01547 loss_rpn_loc: 0.1278 time: 0.5082
last_time: 0.5244 data_time: 0.0078 last_data_time: 0.0066 lr:
0.00025 max_mem: 2458M
[07/21 23:07:04 d2.utils.events]: eta: 0:48:06 iter: 4419
total_loss: 0.5823 loss_cls: 0.09561 loss_box_reg: 0.353
loss_rpn_cls: 0.01733 loss_rpn_loc: 0.1331 time: 0.5082
last_time: 0.5205 data_time: 0.0127 last_data_time: 0.0082 lr:
0.00025 max_mem: 2458M
[07/21 23:07:14 d2.utils.events]: eta: 0:47:55 iter: 4439
total_loss: 0.5697 loss_cls: 0.09497 loss_box_reg: 0.3432
loss_rpn_cls: 0.01397 loss_rpn_loc: 0.1252 time: 0.5082
last_time: 0.5246 data_time: 0.0107 last_data_time: 0.0083 lr:
0.00025 max_mem: 2458M
[07/21 23:07:25 d2.utils.events]: eta: 0:47:45 iter: 4459
total_loss: 0.5411 loss_cls: 0.09073 loss_box_reg: 0.3047
loss_rpn_cls: 0.01504 loss_rpn_loc: 0.1261 time: 0.5083
last_time: 0.5290 data_time: 0.0085 last_data_time: 0.0184 lr:
0.00025 max_mem: 2458M
[07/21 23:07:35 d2.utils.events]: eta: 0:47:35 iter: 4479
total_loss: 0.532 loss_cls: 0.09182 loss_box_reg: 0.3156
loss_rpn_cls: 0.0148 loss_rpn_loc: 0.111 time: 0.5083 last_time:
0.5224 data_time: 0.0128 last_data_time: 0.0085 lr: 0.00025
max_mem: 2458M
[07/21 23:07:45 d2.utils.events]: eta: 0:47:26 iter: 4499
total_loss: 0.545 loss_cls: 0.08558 loss_box_reg: 0.3137
loss_rpn_cls: 0.01265 loss_rpn_loc: 0.1186 time: 0.5083
last_time: 0.4538 data_time: 0.0122 last_data_time: 0.0103 lr:
0.00025 max_mem: 2458M
[07/21 23:07:56 d2.utils.events]: eta: 0:47:16 iter: 4519
total_loss: 0.559 loss_cls: 0.08714 loss_box_reg: 0.3141
loss_rpn_cls: 0.01429 loss_rpn_loc: 0.1222 time: 0.5084
last_time: 0.5195 data_time: 0.0119 last_data_time: 0.0059 lr:
0.00025 max_mem: 2458M
[07/21 23:08:06 d2.utils.events]: eta: 0:47:05 iter: 4539
total_loss: 0.5189 loss_cls: 0.08968 loss_box_reg: 0.3002
loss_rpn_cls: 0.01273 loss_rpn_loc: 0.1163 time: 0.5084
last_time: 0.5258 data_time: 0.0064 last_data_time: 0.0073 lr:
0.00025 max_mem: 2458M
[07/21 23:08:16 d2.utils.events]: eta: 0:46:55 iter: 4559
total_loss: 0.4952 loss_cls: 0.08029 loss_box_reg: 0.299
loss_rpn_cls: 0.01766 loss_rpn_loc: 0.11 time: 0.5084 last_time:
0.5187 data_time: 0.0129 last_data_time: 0.0065 lr: 0.00025
max_mem: 2458M
[07/21 23:08:27 d2.utils.events]: eta: 0:46:46 iter: 4579
total_loss: 0.5212 loss_cls: 0.08634 loss_box_reg: 0.3099
loss_rpn_cls: 0.0144 loss_rpn_loc: 0.1119 time: 0.5085 last_time:
0.5261 data_time: 0.0129 last_data_time: 0.0184 lr: 0.00025
```

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max_mem: 2458M
[07/21 23:08:37 d2.utils.events]: eta: 0:46:35 iter: 4599
total_loss: 0.4876 loss_cls: 0.08114 loss_box_reg: 0.2915
loss_rpn_cls: 0.02048 loss_rpn_loc: 0.1093 time: 0.5085
last_time: 0.4642 data_time: 0.0106 last_data_time: 0.0165 lr:
0.00025 max_mem: 2458M
[07/21 23:08:47 d2.utils.events]: eta: 0:46:25 iter: 4619
total_loss: 0.5082 loss_cls: 0.08543 loss_box_reg: 0.3038
loss_rpn_cls: 0.01293 loss_rpn_loc: 0.1112 time: 0.5084
last_time: 0.5226 data_time: 0.0086 last_data_time: 0.0087 lr:
0.00025 max_mem: 2458M
[07/21 23:08:57 d2.utils.events]: eta: 0:46:15 iter: 4639
total_loss: 0.4997 loss_cls: 0.07897 loss_box_reg: 0.3022
loss_rpn_cls: 0.01807 loss_rpn_loc: 0.1177 time: 0.5085
last_time: 0.5263 data_time: 0.0091 last_data_time: 0.0087 lr:
0.00025 max_mem: 2458M
[07/21 23:09:08 d2.utils.events]: eta: 0:46:05 iter: 4659
total_loss: 0.5399 loss_cls: 0.08712 loss_box_reg: 0.2966
loss_rpn_cls: 0.01416 loss_rpn_loc: 0.1143 time: 0.5085
last_time: 0.4599 data_time: 0.0068 last_data_time: 0.0069 lr:
0.00025 max_mem: 2458M
[07/21 23:09:18 d2.utils.events]: eta: 0:45:55 iter: 4679
total_loss: 0.4982 loss_cls: 0.08491 loss_box_reg: 0.2962
loss_rpn_cls: 0.01106 loss_rpn_loc: 0.1153 time: 0.5085
last_time: 0.4706 data_time: 0.0097 last_data_time: 0.0276 lr:
0.00025 max_mem: 2458M
[07/21 23:09:28 d2.utils.events]: eta: 0:45:44 iter: 4699
total_loss: 0.4889 loss_cls: 0.08024 loss_box_reg: 0.2899
loss_rpn_cls: 0.01494 loss_rpn_loc: 0.1068 time: 0.5085
last_time: 0.5166 data_time: 0.0141 last_data_time: 0.0068 lr:
0.00025 max_mem: 2458M
[07/21 23:09:38 d2.utils.events]: eta: 0:45:34 iter: 4719
total_loss: 0.5255 loss_cls: 0.08949 loss_box_reg: 0.2979
loss_rpn_cls: 0.02137 loss_rpn_loc: 0.1123 time: 0.5086
last_time: 0.5628 data_time: 0.0194 last_data_time: 0.0203 lr:
0.00025 max_mem: 2458M
[07/21 23:09:48 d2.utils.events]: eta: 0:45:24 iter: 4739
total_loss: 0.4945 loss_cls: 0.08341 loss_box_reg: 0.2694
loss_rpn_cls: 0.01254 loss_rpn_loc: 0.1065 time: 0.5085
last_time: 0.4541 data_time: 0.0085 last_data_time: 0.0058 lr:
0.00025 max_mem: 2458M
[07/21 23:09:59 d2.utils.events]: eta: 0:45:13 iter: 4759
total_loss: 0.5111 loss_cls: 0.0817 loss_box_reg: 0.306
loss_rpn_cls: 0.02071 loss_rpn_loc: 0.1046 time: 0.5085
last_time: 0.5203 data_time: 0.0086 last_data_time: 0.0065 lr:
0.00025 max_mem: 2458M
[07/21 23:10:09 d2.utils.events]: eta: 0:45:02 iter: 4779
total_loss: 0.4908 loss_cls: 0.07835 loss_box_reg: 0.2804
loss_rpn_cls: 0.0214 loss_rpn_loc: 0.1153 time: 0.5086 last_time:
```

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0.4584 data_time: 0.0148 last_data_time: 0.0052 lr: 0.00025
max_mem: 2458M
[07/21 23:10:19 d2.utils.events]: eta: 0:44:51 iter: 4799
total_loss: 0.5091 loss_cls: 0.08886 loss_box_reg: 0.2924
loss_rpn_cls: 0.01442 loss_rpn_loc: 0.1144 time: 0.5085
last_time: 0.5345 data_time: 0.0101 last_data_time: 0.0174 lr:
0.00025 max_mem: 2458M
[07/21 23:10:29 d2.utils.events]: eta: 0:44:42 iter: 4819
total_loss: 0.4754 loss_cls: 0.08342 loss_box_reg: 0.2721
loss_rpn_cls: 0.02059 loss_rpn_loc: 0.1079 time: 0.5085
last_time: 0.4688 data_time: 0.0096 last_data_time: 0.0065 lr:
0.00025 max_mem: 2458M
[07/21 23:10:39 d2.utils.events]: eta: 0:44:32 iter: 4839
total_loss: 0.495 loss_cls: 0.08467 loss_box_reg: 0.2735
loss_rpn_cls: 0.01365 loss_rpn_loc: 0.1117 time: 0.5085
last_time: 0.4655 data_time: 0.0142 last_data_time: 0.0103 lr:
0.00025 max_mem: 2458M
[07/21 23:10:50 d2.utils.events]: eta: 0:44:22 iter: 4859
total_loss: 0.5516 loss_cls: 0.08221 loss_box_reg: 0.3037
loss_rpn_cls: 0.01525 loss_rpn_loc: 0.1081 time: 0.5085
last_time: 0.5255 data_time: 0.0116 last_data_time: 0.0059 lr:
0.00025 max_mem: 2458M
[07/21 23:11:00 d2.utils.events]: eta: 0:44:11 iter: 4879
total_loss: 0.4903 loss_cls: 0.07502 loss_box_reg: 0.2892
loss_rpn_cls: 0.01514 loss_rpn_loc: 0.1013 time: 0.5085
last_time: 0.5114 data_time: 0.0067 last_data_time: 0.0056 lr:
0.00025 max_mem: 2458M
[07/21 23:11:10 d2.utils.events]: eta: 0:44:01 iter: 4899
total_loss: 0.5005 loss_cls: 0.08148 loss_box_reg: 0.2946
loss_rpn_cls: 0.01473 loss_rpn_loc: 0.1085 time: 0.5085
last_time: 0.4737 data_time: 0.0093 last_data_time: 0.0088 lr:
0.00025 max_mem: 2458M
[07/21 23:11:20 d2.utils.events]: eta: 0:43:51 iter: 4919
total_loss: 0.4705 loss_cls: 0.07542 loss_box_reg: 0.2831
loss_rpn_cls: 0.01243 loss_rpn_loc: 0.1092 time: 0.5085
last_time: 0.4708 data_time: 0.0112 last_data_time: 0.0078 lr:
0.00025 max_mem: 2458M
[07/21 23:11:30 d2.utils.events]: eta: 0:43:41 iter: 4939
total_loss: 0.5202 loss_cls: 0.08135 loss_box_reg: 0.3061
loss_rpn_cls: 0.02065 loss_rpn_loc: 0.11 time: 0.5085 last_time:
0.5002 data_time: 0.0108 last_data_time: 0.0265 lr: 0.00025
max_mem: 2458M
[07/21 23:11:41 d2.utils.events]: eta: 0:43:31 iter: 4959
total_loss: 0.4756 loss_cls: 0.08016 loss_box_reg: 0.2744
loss_rpn_cls: 0.01531 loss_rpn_loc: 0.09879 time: 0.5086
last_time: 0.4728 data_time: 0.0134 last_data_time: 0.0067 lr:
0.00025 max_mem: 2458M
[07/21 23:11:51 d2.utils.events]: eta: 0:43:21 iter: 4979
total_loss: 0.5168 loss_cls: 0.07909 loss_box_reg: 0.3157
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loss_rpn_cls: 0.01397 loss_rpn_loc: 0.1126 time: 0.5086
last_time: 0.5180 data_time: 0.0131 last_data_time: 0.0059 lr:
0.00025 max_mem: 2458M
[07/21 23:12:02 d2.utils.events]: eta: 0:43:10 iter: 4999
total_loss: 0.5174 loss_cls: 0.08232 loss_box_reg: 0.3067
loss_rpn_cls: 0.01724 loss_rpn_loc: 0.1136 time: 0.5085
last_time: 0.5511 data_time: 0.0109 last_data_time: 0.0255 lr:
0.00025 max_mem: 2458M
[07/21 23:12:13 d2.utils.events]: eta: 0:43:00 iter: 5019
total_loss: 0.5183 loss_cls: 0.07756 loss_box_reg: 0.3063
loss_rpn_cls: 0.01754 loss_rpn_loc: 0.1187 time: 0.5085
last_time: 0.5378 data_time: 0.0098 last_data_time: 0.0272 lr:
0.00025 max_mem: 2458M
[07/21 23:12:23 d2.utils.events]: eta: 0:42:50 iter: 5039
total_loss: 0.4719 loss_cls: 0.07559 loss_box_reg: 0.2687
loss_rpn_cls: 0.01392 loss_rpn_loc: 0.1054 time: 0.5085
last_time: 0.5187 data_time: 0.0086 last_data_time: 0.0062 lr:
0.00025 max_mem: 2458M
[07/21 23:12:33 d2.utils.events]: eta: 0:42:41 iter: 5059
total_loss: 0.4926 loss_cls: 0.08156 loss_box_reg: 0.2962
loss_rpn_cls: 0.01198 loss_rpn_loc: 0.1066 time: 0.5085
last_time: 0.4558 data_time: 0.0118 last_data_time: 0.0089 lr:
0.00025 max_mem: 2458M
[07/21 23:12:43 d2.utils.events]: eta: 0:42:30 iter: 5079
total_loss: 0.4492 loss_cls: 0.07569 loss_box_reg: 0.2771
loss_rpn_cls: 0.01486 loss_rpn_loc: 0.1089 time: 0.5085
last_time: 0.5429 data_time: 0.0123 last_data_time: 0.0235 lr:
0.00025 max_mem: 2458M
[07/21 23:12:54 d2.utils.events]: eta: 0:42:21 iter: 5099
total_loss: 0.5032 loss_cls: 0.07687 loss_box_reg: 0.2988
loss_rpn_cls: 0.01434 loss_rpn_loc: 0.1129 time: 0.5086
last_time: 0.5200 data_time: 0.0114 last_data_time: 0.0079 lr:
0.00025 max_mem: 2458M
[07/21 23:13:04 d2.utils.events]: eta: 0:42:11 iter: 5119
total_loss: 0.462 loss_cls: 0.07573 loss_box_reg: 0.2684
loss_rpn_cls: 0.01837 loss_rpn_loc: 0.1035 time: 0.5086
last_time: 0.4486 data_time: 0.0100 last_data_time: 0.0073 lr:
0.00025 max_mem: 2458M
[07/21 23:13:14 d2.utils.events]: eta: 0:42:01 iter: 5139
total_loss: 0.4759 loss_cls: 0.07981 loss_box_reg: 0.2833
loss_rpn_cls: 0.01364 loss_rpn_loc: 0.1036 time: 0.5086
last_time: 0.5164 data_time: 0.0107 last_data_time: 0.0070 lr:
0.00025 max_mem: 2458M
[07/21 23:13:24 d2.utils.events]: eta: 0:41:50 iter: 5159
total_loss: 0.4685 loss_cls: 0.07664 loss_box_reg: 0.2682
loss_rpn_cls: 0.02105 loss_rpn_loc: 0.1079 time: 0.5086
last_time: 0.5449 data_time: 0.0095 last_data_time: 0.0327 lr:
0.00025 max_mem: 2458M
[07/21 23:13:34 d2.utils.events]: eta: 0:41:40 iter: 5179
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total_loss: 0.5017 loss_cls: 0.07642 loss_box_reg: 0.2966
loss_rpn_cls: 0.01941 loss_rpn_loc: 0.1054 time: 0.5085
last_time: 0.5169 data_time: 0.0065 last_data_time: 0.0067 lr:
0.00025 max_mem: 2458M
[07/21 23:13:45 d2.utils.events]: eta: 0:41:30 iter: 5199
total_loss: 0.4914 loss_cls: 0.07761 loss_box_reg: 0.2785
loss_rpn_cls: 0.01595 loss_rpn_loc: 0.1142 time: 0.5086
last_time: 0.5176 data_time: 0.0136 last_data_time: 0.0056 lr:
0.00025 max_mem: 2458M
[07/21 23:13:55 d2.utils.events]: eta: 0:41:19 iter: 5219
total_loss: 0.4651 loss_cls: 0.07563 loss_box_reg: 0.2737
loss_rpn_cls: 0.01718 loss_rpn_loc: 0.1038 time: 0.5086
last_time: 0.5450 data_time: 0.0090 last_data_time: 0.0282 lr:
0.00025 max_mem: 2458M
[07/21 23:14:05 d2.utils.events]: eta: 0:41:09 iter: 5239
total_loss: 0.4557 loss_cls: 0.07952 loss_box_reg: 0.2785
loss_rpn_cls: 0.01431 loss_rpn_loc: 0.1007 time: 0.5087
last_time: 0.5191 data_time: 0.0152 last_data_time: 0.0082 lr:
0.00025 max_mem: 2458M
[07/21 23:14:16 d2.utils.events]: eta: 0:40:59 iter: 5259
total_loss: 0.4723 loss_cls: 0.07841 loss_box_reg: 0.2776
loss_rpn_cls: 0.01429 loss_rpn_loc: 0.1077 time: 0.5087
last_time: 0.4754 data_time: 0.0140 last_data_time: 0.0057 lr:
0.00025 max_mem: 2458M
[07/21 23:14:26 d2.utils.events]: eta: 0:40:49 iter: 5279
total_loss: 0.4656 loss_cls: 0.0771 loss_box_reg: 0.2649
loss_rpn_cls: 0.01504 loss_rpn_loc: 0.1012 time: 0.5088
last_time: 0.5501 data_time: 0.0170 last_data_time: 0.0291 lr:
0.00025 max_mem: 2458M
[07/21 23:14:36 d2.utils.events]: eta: 0:40:38 iter: 5299
total_loss: 0.4749 loss_cls: 0.07347 loss_box_reg: 0.2787
loss_rpn_cls: 0.01744 loss_rpn_loc: 0.1006 time: 0.5087
last_time: 0.5201 data_time: 0.0081 last_data_time: 0.0105 lr:
0.00025 max_mem: 2458M
[07/21 23:14:46 d2.utils.events]: eta: 0:40:28 iter: 5319
total_loss: 0.4582 loss_cls: 0.07439 loss_box_reg: 0.2648
loss_rpn_cls: 0.01468 loss_rpn_loc: 0.1 time: 0.5087 last_time:
0.4732 data_time: 0.0092 last_data_time: 0.0054 lr: 0.00025
max_mem: 2458M
[07/21 23:14:56 d2.utils.events]: eta: 0:40:17 iter: 5339
total_loss: 0.4856 loss_cls: 0.08024 loss_box_reg: 0.2876
loss_rpn_cls: 0.01145 loss_rpn_loc: 0.1088 time: 0.5087
last_time: 0.5130 data_time: 0.0106 last_data_time: 0.0069 lr:
0.00025 max_mem: 2458M
[07/21 23:15:07 d2.utils.events]: eta: 0:40:07 iter: 5359
total_loss: 0.5054 loss_cls: 0.07743 loss_box_reg: 0.2924
loss_rpn_cls: 0.01585 loss_rpn_loc: 0.1092 time: 0.5087
last_time: 0.4968 data_time: 0.0083 last_data_time: 0.0268 lr:
0.00025 max_mem: 2458M
```

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[07/21 23:15:17 d2.utils.events]: eta: 0:39:57 iter: 5379
total_loss: 0.4638 loss_cls: 0.07664 loss_box_reg: 0.2597
loss_rpn_cls: 0.01833 loss_rpn_loc: 0.1028 time: 0.5087
last_time: 0.4507 data_time: 0.0111 last_data_time: 0.0068 lr:
0.00025 max_mem: 2458M
[07/21 23:15:27 d2.utils.events]: eta: 0:39:46 iter: 5399
total_loss: 0.4752 loss_cls: 0.0765 loss_box_reg: 0.2666
loss_rpn_cls: 0.01689 loss_rpn_loc: 0.1013 time: 0.5087
last_time: 0.5237 data_time: 0.0117 last_data_time: 0.0055 lr:
0.00025 max_mem: 2458M
[07/21 23:15:37 d2.utils.events]: eta: 0:39:36 iter: 5419
total_loss: 0.4749 loss_cls: 0.0765 loss_box_reg: 0.2878
loss_rpn_cls: 0.01195 loss_rpn_loc: 0.1004 time: 0.5087
last_time: 0.5296 data_time: 0.0109 last_data_time: 0.0054 lr:
0.00025 max_mem: 2458M
[07/21 23:15:47 d2.utils.events]: eta: 0:39:25 iter: 5439
total_loss: 0.4733 loss_cls: 0.07231 loss_box_reg: 0.2741
loss_rpn_cls: 0.01884 loss_rpn_loc: 0.1046 time: 0.5087
last_time: 0.5173 data_time: 0.0131 last_data_time: 0.0077 lr:
0.00025 max_mem: 2458M
[07/21 23:15:57 d2.utils.events]: eta: 0:39:15 iter: 5459
total_loss: 0.4703 loss_cls: 0.08042 loss_box_reg: 0.2685
loss_rpn_cls: 0.01475 loss_rpn_loc: 0.1009 time: 0.5087
last_time: 0.5185 data_time: 0.0130 last_data_time: 0.0049 lr:
0.00025 max_mem: 2458M
[07/21 23:16:08 d2.utils.events]: eta: 0:39:05 iter: 5479
total_loss: 0.4526 loss_cls: 0.07427 loss_box_reg: 0.2725
loss_rpn_cls: 0.01311 loss_rpn_loc: 0.09703 time: 0.5087
last_time: 0.4088 data_time: 0.0137 last_data_time: 0.0055 lr:
0.00025 max_mem: 2458M
[07/21 23:16:18 d2.utils.events]: eta: 0:38:54 iter: 5499
total_loss: 0.4547 loss_cls: 0.07468 loss_box_reg: 0.2674
loss_rpn_cls: 0.01434 loss_rpn_loc: 0.09873 time: 0.5087
last_time: 0.5480 data_time: 0.0089 last_data_time: 0.0240 lr:
0.00025 max_mem: 2458M
[07/21 23:16:28 d2.utils.events]: eta: 0:38:44 iter: 5519
total_loss: 0.4423 loss_cls: 0.07446 loss_box_reg: 0.2596
loss_rpn_cls: 0.01357 loss_rpn_loc: 0.1024 time: 0.5087
last_time: 0.5220 data_time: 0.0101 last_data_time: 0.0055 lr:
0.00025 max_mem: 2458M
[07/21 23:16:38 d2.utils.events]: eta: 0:38:34 iter: 5539
total_loss: 0.4466 loss_cls: 0.06738 loss_box_reg: 0.2518
loss_rpn_cls: 0.01563 loss_rpn_loc: 0.09651 time: 0.5087
last_time: 0.5248 data_time: 0.0137 last_data_time: 0.0053 lr:
0.00025 max_mem: 2458M
[07/21 23:16:48 d2.utils.events]: eta: 0:38:23 iter: 5559
total_loss: 0.4409 loss_cls: 0.06979 loss_box_reg: 0.2804
loss_rpn_cls: 0.01454 loss_rpn_loc: 0.109 time: 0.5087 last_time:
0.4625 data_time: 0.0091 last_data_time: 0.0075 lr: 0.00025
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max_mem: 2458M
[07/21 23:16:59 d2.utils.events]: eta: 0:38:12 iter: 5579
total_loss: 0.4442 loss_cls: 0.07167 loss_box_reg: 0.2553
loss_rpn_cls: 0.01417 loss_rpn_loc: 0.09214 time: 0.5087
last_time: 0.5169 data_time: 0.0077 last_data_time: 0.0056 lr:
0.00025 max_mem: 2458M
[07/21 23:17:09 d2.utils.events]: eta: 0:38:02 iter: 5599
total_loss: 0.4443 loss_cls: 0.07203 loss_box_reg: 0.244
loss_rpn_cls: 0.01574 loss_rpn_loc: 0.1049 time: 0.5087
last_time: 0.5212 data_time: 0.0104 last_data_time: 0.0048 lr:
0.00025 max_mem: 2458M
[07/21 23:17:19 d2.utils.events]: eta: 0:37:52 iter: 5619
total_loss: 0.4498 loss_cls: 0.07954 loss_box_reg: 0.2638
loss_rpn_cls: 0.01607 loss_rpn_loc: 0.09526 time: 0.5087
last_time: 0.5144 data_time: 0.0081 last_data_time: 0.0068 lr:
0.00025 max_mem: 2458M
[07/21 23:17:29 d2.utils.events]: eta: 0:37:41 iter: 5639
total_loss: 0.4386 loss_cls: 0.06774 loss_box_reg: 0.252
loss_rpn_cls: 0.01608 loss_rpn_loc: 0.09705 time: 0.5087
last_time: 0.5002 data_time: 0.0079 last_data_time: 0.0301 lr:
0.00025 max_mem: 2458M
[07/21 23:17:39 d2.utils.events]: eta: 0:37:31 iter: 5659
total_loss: 0.4689 loss_cls: 0.07179 loss_box_reg: 0.2689
loss_rpn_cls: 0.01776 loss_rpn_loc: 0.1128 time: 0.5087
last_time: 0.5234 data_time: 0.0105 last_data_time: 0.0075 lr:
0.00025 max_mem: 2458M
[07/21 23:17:50 d2.utils.events]: eta: 0:37:21 iter: 5679
total_loss: 0.4258 loss_cls: 0.07256 loss_box_reg: 0.2545
loss_rpn_cls: 0.0127 loss_rpn_loc: 0.09518 time: 0.5087
last_time: 0.5450 data_time: 0.0168 last_data_time: 0.0153 lr:
0.00025 max_mem: 2458M
[07/21 23:18:00 d2.utils.events]: eta: 0:37:10 iter: 5699
total_loss: 0.4512 loss_cls: 0.07186 loss_box_reg: 0.2653
loss_rpn_cls: 0.01734 loss_rpn_loc: 0.09869 time: 0.5087
last_time: 0.4739 data_time: 0.0091 last_data_time: 0.0098 lr:
0.00025 max_mem: 2458M
[07/21 23:18:10 d2.utils.events]: eta: 0:37:00 iter: 5719
total_loss: 0.5059 loss_cls: 0.07705 loss_box_reg: 0.2846
loss_rpn_cls: 0.01612 loss_rpn_loc: 0.1121 time: 0.5087
last_time: 0.4763 data_time: 0.0124 last_data_time: 0.0062 lr:
0.00025 max_mem: 2458M
[07/21 23:18:20 d2.utils.events]: eta: 0:36:50 iter: 5739
total_loss: 0.4586 loss_cls: 0.07467 loss_box_reg: 0.2615
loss_rpn_cls: 0.01628 loss_rpn_loc: 0.1079 time: 0.5087
last_time: 0.5179 data_time: 0.0140 last_data_time: 0.0061 lr:
0.00025 max_mem: 2458M
[07/21 23:18:31 d2.utils.events]: eta: 0:36:40 iter: 5759
total_loss: 0.4455 loss_cls: 0.0666 loss_box_reg: 0.2624
loss_rpn_cls: 0.01434 loss_rpn_loc: 0.09982 time: 0.5087
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last_time: 0.5331 data_time: 0.0082 last_data_time: 0.0150 lr:  
0.00025 max_mem: 2458M  
[07/21 23:18:41 d2.utils.events]: eta: 0:36:30 iter: 5779  
total_loss: 0.4759 loss_cls: 0.07056 loss_box_reg: 0.2568  
loss_rpn_cls: 0.01801 loss_rpn_loc: 0.1038 time: 0.5088  
last_time: 0.4561 data_time: 0.0092 last_data_time: 0.0059 lr:  
0.00025 max_mem: 2458M  
[07/21 23:18:51 d2.utils.events]: eta: 0:36:20 iter: 5799  
total_loss: 0.4516 loss_cls: 0.0726 loss_box_reg: 0.2508  
loss_rpn_cls: 0.02137 loss_rpn_loc: 0.09942 time: 0.5088  
last_time: 0.5164 data_time: 0.0109 last_data_time: 0.0057 lr:  
0.00025 max_mem: 2458M  
[07/21 23:19:02 d2.utils.events]: eta: 0:36:10 iter: 5819  
total_loss: 0.4136 loss_cls: 0.06804 loss_box_reg: 0.2447  
loss_rpn_cls: 0.01899 loss_rpn_loc: 0.09329 time: 0.5088  
last_time: 0.5496 data_time: 0.0126 last_data_time: 0.0241 lr:  
0.00025 max_mem: 2458M  
[07/21 23:19:12 d2.utils.events]: eta: 0:35:59 iter: 5839  
total_loss: 0.3996 loss_cls: 0.06806 loss_box_reg: 0.2319  
loss_rpn_cls: 0.01221 loss_rpn_loc: 0.09184 time: 0.5088  
last_time: 0.5287 data_time: 0.0089 last_data_time: 0.0067 lr:  
0.00025 max_mem: 2458M  
[07/21 23:19:22 d2.utils.events]: eta: 0:35:49 iter: 5859  
total_loss: 0.4053 loss_cls: 0.07051 loss_box_reg: 0.2304  
loss_rpn_cls: 0.01465 loss_rpn_loc: 0.09296 time: 0.5088  
last_time: 0.5204 data_time: 0.0168 last_data_time: 0.0070 lr:  
0.00025 max_mem: 2458M  
[07/21 23:19:32 d2.utils.events]: eta: 0:35:39 iter: 5879  
total_loss: 0.394 loss_cls: 0.06278 loss_box_reg: 0.2321  
loss_rpn_cls: 0.01437 loss_rpn_loc: 0.08604 time: 0.5089  
last_time: 0.5287 data_time: 0.0138 last_data_time: 0.0185 lr:  
0.00025 max_mem: 2458M  
[07/21 23:19:43 d2.utils.events]: eta: 0:35:29 iter: 5899  
total_loss: 0.4156 loss_cls: 0.06795 loss_box_reg: 0.2299  
loss_rpn_cls: 0.01083 loss_rpn_loc: 0.1049 time: 0.5089  
last_time: 0.5333 data_time: 0.0123 last_data_time: 0.0167 lr:  
0.00025 max_mem: 2458M  
[07/21 23:19:53 d2.utils.events]: eta: 0:35:19 iter: 5919  
total_loss: 0.4243 loss_cls: 0.071 loss_box_reg: 0.2525  
loss_rpn_cls: 0.01225 loss_rpn_loc: 0.09523 time: 0.5089  
last_time: 0.5121 data_time: 0.0142 last_data_time: 0.0049 lr:  
0.00025 max_mem: 2458M  
[07/21 23:20:03 d2.utils.events]: eta: 0:35:08 iter: 5939  
total_loss: 0.395 loss_cls: 0.06498 loss_box_reg: 0.2227  
loss_rpn_cls: 0.01967 loss_rpn_loc: 0.0888 time: 0.5089  
last_time: 0.5178 data_time: 0.0119 last_data_time: 0.0065 lr:  
0.00025 max_mem: 2458M  
[07/21 23:20:13 d2.utils.events]: eta: 0:34:58 iter: 5959  
total_loss: 0.4668 loss_cls: 0.06783 loss_box_reg: 0.2605
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loss_rpn_cls: 0.01284 loss_rpn_loc: 0.1011 time: 0.5089
last_time: 0.5160 data_time: 0.0125 last_data_time: 0.0095 lr:
0.00025 max_mem: 2458M
[07/21 23:20:24 d2.utils.events]: eta: 0:34:48 iter: 5979
total_loss: 0.4208 loss_cls: 0.06646 loss_box_reg: 0.234
loss_rpn_cls: 0.01545 loss_rpn_loc: 0.09904 time: 0.5089
last_time: 0.4926 data_time: 0.0102 last_data_time: 0.0272 lr:
0.00025 max_mem: 2458M
[07/21 23:20:34 d2.utils.events]: eta: 0:34:38 iter: 5999
total_loss: 0.4026 loss_cls: 0.06242 loss_box_reg: 0.2322
loss_rpn_cls: 0.01392 loss_rpn_loc: 0.09545 time: 0.5089
last_time: 0.4765 data_time: 0.0096 last_data_time: 0.0105 lr:
0.00025 max_mem: 2458M
[07/21 23:20:44 d2.utils.events]: eta: 0:34:27 iter: 6019
total_loss: 0.4424 loss_cls: 0.07046 loss_box_reg: 0.2526
loss_rpn_cls: 0.01983 loss_rpn_loc: 0.1015 time: 0.5089
last_time: 0.4759 data_time: 0.0134 last_data_time: 0.0051 lr:
0.00025 max_mem: 2458M
[07/21 23:20:55 d2.utils.events]: eta: 0:34:17 iter: 6039
total_loss: 0.4143 loss_cls: 0.06486 loss_box_reg: 0.228
loss_rpn_cls: 0.01583 loss_rpn_loc: 0.08918 time: 0.5090
last_time: 0.5481 data_time: 0.0136 last_data_time: 0.0286 lr:
0.00025 max_mem: 2458M
[07/21 23:21:05 d2.utils.events]: eta: 0:34:07 iter: 6059
total_loss: 0.4347 loss_cls: 0.06907 loss_box_reg: 0.2451
loss_rpn_cls: 0.01303 loss_rpn_loc: 0.1059 time: 0.5089
last_time: 0.4153 data_time: 0.0073 last_data_time: 0.0073 lr:
0.00025 max_mem: 2458M
[07/21 23:21:15 d2.utils.events]: eta: 0:33:57 iter: 6079
total_loss: 0.4249 loss_cls: 0.06256 loss_box_reg: 0.2409
loss_rpn_cls: 0.01867 loss_rpn_loc: 0.09665 time: 0.5090
last_time: 0.5176 data_time: 0.0106 last_data_time: 0.0062 lr:
0.00025 max_mem: 2458M
[07/21 23:21:25 d2.utils.events]: eta: 0:33:46 iter: 6099
total_loss: 0.4246 loss_cls: 0.06237 loss_box_reg: 0.2502
loss_rpn_cls: 0.01403 loss_rpn_loc: 0.09681 time: 0.5090
last_time: 0.4711 data_time: 0.0105 last_data_time: 0.0068 lr:
0.00025 max_mem: 2458M
[07/21 23:21:35 d2.utils.events]: eta: 0:33:36 iter: 6119
total_loss: 0.4214 loss_cls: 0.06296 loss_box_reg: 0.2478
loss_rpn_cls: 0.01448 loss_rpn_loc: 0.09495 time: 0.5090
last_time: 0.5523 data_time: 0.0101 last_data_time: 0.0268 lr:
0.00025 max_mem: 2458M
[07/21 23:21:46 d2.utils.events]: eta: 0:33:26 iter: 6139
total_loss: 0.4005 loss_cls: 0.06684 loss_box_reg: 0.223
loss_rpn_cls: 0.01307 loss_rpn_loc: 0.09659 time: 0.5090
last_time: 0.5234 data_time: 0.0107 last_data_time: 0.0054 lr:
0.00025 max_mem: 2458M
[07/21 23:21:56 d2.utils.events]: eta: 0:33:17 iter: 6159
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total_loss: 0.3764 loss_cls: 0.06287 loss_box_reg: 0.2091
loss_rpn_cls: 0.01801 loss_rpn_loc: 0.08589 time: 0.5090
last_time: 0.4764 data_time: 0.0167 last_data_time: 0.0071 lr:
0.00025 max_mem: 2458M
[07/21 23:22:06 d2.utils.events]: eta: 0:33:06 iter: 6179
total_loss: 0.4375 loss_cls: 0.07235 loss_box_reg: 0.2437
loss_rpn_cls: 0.01759 loss_rpn_loc: 0.101 time: 0.5090 last_time:
0.4926 data_time: 0.0124 last_data_time: 0.0243 lr: 0.00025
max_mem: 2458M
[07/21 23:22:16 d2.utils.events]: eta: 0:32:55 iter: 6199
total_loss: 0.4343 loss_cls: 0.06122 loss_box_reg: 0.2536
loss_rpn_cls: 0.01246 loss_rpn_loc: 0.08998 time: 0.5090
last_time: 0.5229 data_time: 0.0086 last_data_time: 0.0084 lr:
0.00025 max_mem: 2458M
[07/21 23:22:26 d2.utils.events]: eta: 0:32:45 iter: 6219
total_loss: 0.4085 loss_cls: 0.06711 loss_box_reg: 0.2378
loss_rpn_cls: 0.01381 loss_rpn_loc: 0.09377 time: 0.5090
last_time: 0.4490 data_time: 0.0107 last_data_time: 0.0049 lr:
0.00025 max_mem: 2458M
[07/21 23:22:37 d2.utils.events]: eta: 0:32:34 iter: 6239
total_loss: 0.4109 loss_cls: 0.05946 loss_box_reg: 0.2411
loss_rpn_cls: 0.01392 loss_rpn_loc: 0.09359 time: 0.5090
last_time: 0.4741 data_time: 0.0131 last_data_time: 0.0081 lr:
0.00025 max_mem: 2458M
[07/21 23:22:47 d2.utils.events]: eta: 0:32:24 iter: 6259
total_loss: 0.3952 loss_cls: 0.06007 loss_box_reg: 0.2253
loss_rpn_cls: 0.01434 loss_rpn_loc: 0.0898 time: 0.5090
last_time: 0.5441 data_time: 0.0072 last_data_time: 0.0265 lr:
0.00025 max_mem: 2458M
[07/21 23:22:57 d2.utils.events]: eta: 0:32:13 iter: 6279
total_loss: 0.4275 loss_cls: 0.06468 loss_box_reg: 0.2551
loss_rpn_cls: 0.01662 loss_rpn_loc: 0.1008 time: 0.5089
last_time: 0.4484 data_time: 0.0123 last_data_time: 0.0062 lr:
0.00025 max_mem: 2458M
[07/21 23:23:07 d2.utils.events]: eta: 0:32:03 iter: 6299
total_loss: 0.401 loss_cls: 0.06208 loss_box_reg: 0.2325
loss_rpn_cls: 0.01565 loss_rpn_loc: 0.09275 time: 0.5090
last_time: 0.4721 data_time: 0.0126 last_data_time: 0.0051 lr:
0.00025 max_mem: 2458M
[07/21 23:23:17 d2.utils.events]: eta: 0:31:53 iter: 6319
total_loss: 0.4123 loss_cls: 0.06465 loss_box_reg: 0.221
loss_rpn_cls: 0.01817 loss_rpn_loc: 0.101 time: 0.5090 last_time:
0.5342 data_time: 0.0096 last_data_time: 0.0188 lr: 0.00025
max_mem: 2458M
[07/21 23:23:28 d2.utils.events]: eta: 0:31:42 iter: 6339
total_loss: 0.3782 loss_cls: 0.06133 loss_box_reg: 0.2155
loss_rpn_cls: 0.01508 loss_rpn_loc: 0.08276 time: 0.5090
last_time: 0.5277 data_time: 0.0101 last_data_time: 0.0091 lr:
0.00025 max_mem: 2458M
[07/21 23:23:38 d2.utils.events]: eta: 0:31:33 iter: 6359
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total_loss: 0.4096 loss_cls: 0.0617 loss_box_reg: 0.2284
loss_rpn_cls: 0.01666 loss_rpn_loc: 0.09108 time: 0.5090
last_time: 0.5270 data_time: 0.0124 last_data_time: 0.0068 lr:
0.00025 max_mem: 2458M
[07/21 23:23:49 d2.utils.events]: eta: 0:31:23 iter: 6379
total_loss: 0.391 loss_cls: 0.06609 loss_box_reg: 0.2183
loss_rpn_cls: 0.008681 loss_rpn_loc: 0.09683 time: 0.5091
last_time: 0.5387 data_time: 0.0166 last_data_time: 0.0161 lr:
0.00025 max_mem: 2458M
[07/21 23:23:59 d2.utils.events]: eta: 0:31:12 iter: 6399
total_loss: 0.3765 loss_cls: 0.06009 loss_box_reg: 0.2125
loss_rpn_cls: 0.01507 loss_rpn_loc: 0.09002 time: 0.5091
last_time: 0.5182 data_time: 0.0091 last_data_time: 0.0086 lr:
0.00025 max_mem: 2458M
[07/21 23:24:09 d2.utils.events]: eta: 0:31:02 iter: 6419
total_loss: 0.4157 loss_cls: 0.06637 loss_box_reg: 0.2301
loss_rpn_cls: 0.01679 loss_rpn_loc: 0.09222 time: 0.5091
last_time: 0.5159 data_time: 0.0080 last_data_time: 0.0061 lr:
0.00025 max_mem: 2458M
[07/21 23:24:19 d2.utils.events]: eta: 0:30:51 iter: 6439
total_loss: 0.3889 loss_cls: 0.06136 loss_box_reg: 0.2222
loss_rpn_cls: 0.01334 loss_rpn_loc: 0.09097 time: 0.5091
last_time: 0.5232 data_time: 0.0155 last_data_time: 0.0055 lr:
0.00025 max_mem: 2458M
[07/21 23:24:29 d2.utils.events]: eta: 0:30:41 iter: 6459
total_loss: 0.3917 loss_cls: 0.05969 loss_box_reg: 0.2181
loss_rpn_cls: 0.01437 loss_rpn_loc: 0.09019 time: 0.5091
last_time: 0.5285 data_time: 0.0093 last_data_time: 0.0259 lr:
0.00025 max_mem: 2458M
[07/21 23:24:40 d2.utils.events]: eta: 0:30:30 iter: 6479
total_loss: 0.4078 loss_cls: 0.06652 loss_box_reg: 0.2274
loss_rpn_cls: 0.0139 loss_rpn_loc: 0.09242 time: 0.5091
last_time: 0.5185 data_time: 0.0133 last_data_time: 0.0056 lr:
0.00025 max_mem: 2458M
[07/21 23:24:50 d2.utils.events]: eta: 0:30:20 iter: 6499
total_loss: 0.3653 loss_cls: 0.06263 loss_box_reg: 0.2149
loss_rpn_cls: 0.01086 loss_rpn_loc: 0.08813 time: 0.5091
last_time: 0.4117 data_time: 0.0128 last_data_time: 0.0076 lr:
0.00025 max_mem: 2458M
[07/21 23:25:00 d2.utils.events]: eta: 0:30:09 iter: 6519
total_loss: 0.388 loss_cls: 0.05686 loss_box_reg: 0.2249
loss_rpn_cls: 0.01653 loss_rpn_loc: 0.0874 time: 0.5091
last_time: 0.5428 data_time: 0.0135 last_data_time: 0.0234 lr:
0.00025 max_mem: 2458M
[07/21 23:25:10 d2.utils.events]: eta: 0:29:59 iter: 6539
total_loss: 0.3864 loss_cls: 0.05821 loss_box_reg: 0.2221
loss_rpn_cls: 0.01422 loss_rpn_loc: 0.0887 time: 0.5091
last_time: 0.5205 data_time: 0.0077 last_data_time: 0.0055 lr:
0.00025 max_mem: 2458M
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[07/21 23:25:20 d2.utils.events]: eta: 0:29:48 iter: 6559
total_loss: 0.4248 loss_cls: 0.06746 loss_box_reg: 0.2356
loss_rpn_cls: 0.01454 loss_rpn_loc: 0.09338 time: 0.5091
last_time: 0.4499 data_time: 0.0138 last_data_time: 0.0070 lr:
0.00025 max_mem: 2458M
[07/21 23:25:31 d2.utils.events]: eta: 0:29:38 iter: 6579
total_loss: 0.3817 loss_cls: 0.05916 loss_box_reg: 0.2299
loss_rpn_cls: 0.009732 loss_rpn_loc: 0.09208 time: 0.5091
last_time: 0.5200 data_time: 0.0119 last_data_time: 0.0062 lr:
0.00025 max_mem: 2458M
[07/21 23:25:41 d2.utils.events]: eta: 0:29:28 iter: 6599
total_loss: 0.434 loss_cls: 0.06359 loss_box_reg: 0.2496
loss_rpn_cls: 0.01451 loss_rpn_loc: 0.1033 time: 0.5091
last_time: 0.5415 data_time: 0.0074 last_data_time: 0.0066 lr:
0.00025 max_mem: 2458M
[07/21 23:25:52 d2.utils.events]: eta: 0:29:17 iter: 6619
total_loss: 0.3939 loss_cls: 0.05992 loss_box_reg: 0.2265
loss_rpn_cls: 0.0135 loss_rpn_loc: 0.09193 time: 0.5092
last_time: 0.5185 data_time: 0.0172 last_data_time: 0.0066 lr:
0.00025 max_mem: 2458M
[07/21 23:26:02 d2.utils.events]: eta: 0:29:08 iter: 6639
total_loss: 0.4058 loss_cls: 0.05219 loss_box_reg: 0.2332
loss_rpn_cls: 0.01734 loss_rpn_loc: 0.09635 time: 0.5092
last_time: 0.5130 data_time: 0.0112 last_data_time: 0.0062 lr:
0.00025 max_mem: 2458M
[07/21 23:26:12 d2.utils.events]: eta: 0:28:57 iter: 6659
total_loss: 0.3665 loss_cls: 0.05642 loss_box_reg: 0.2105
loss_rpn_cls: 0.01307 loss_rpn_loc: 0.08311 time: 0.5092
last_time: 0.5473 data_time: 0.0091 last_data_time: 0.0269 lr:
0.00025 max_mem: 2458M
[07/21 23:26:22 d2.utils.events]: eta: 0:28:46 iter: 6679
total_loss: 0.3918 loss_cls: 0.05942 loss_box_reg: 0.221
loss_rpn_cls: 0.01629 loss_rpn_loc: 0.1014 time: 0.5092
last_time: 0.5184 data_time: 0.0106 last_data_time: 0.0097 lr:
0.00025 max_mem: 2458M
[07/21 23:26:32 d2.utils.events]: eta: 0:28:36 iter: 6699
total_loss: 0.4175 loss_cls: 0.06694 loss_box_reg: 0.2438
loss_rpn_cls: 0.01568 loss_rpn_loc: 0.09382 time: 0.5091
last_time: 0.5229 data_time: 0.0123 last_data_time: 0.0057 lr:
0.00025 max_mem: 2458M
[07/21 23:26:42 d2.utils.events]: eta: 0:28:25 iter: 6719
total_loss: 0.4055 loss_cls: 0.06006 loss_box_reg: 0.232
loss_rpn_cls: 0.01537 loss_rpn_loc: 0.09215 time: 0.5091
last_time: 0.5506 data_time: 0.0104 last_data_time: 0.0226 lr:
0.00025 max_mem: 2458M
[07/21 23:26:53 d2.utils.events]: eta: 0:28:15 iter: 6739
total_loss: 0.3893 loss_cls: 0.05865 loss_box_reg: 0.2168
loss_rpn_cls: 0.01674 loss_rpn_loc: 0.08864 time: 0.5091
last_time: 0.5152 data_time: 0.0071 last_data_time: 0.0086 lr:
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0.00025 max_mem: 2458M
[07/21 23:27:03 d2.utils.events]: eta: 0:28:05 iter: 6759
total_loss: 0.4049 loss_cls: 0.06609 loss_box_reg: 0.2378
loss_rpn_cls: 0.01488 loss_rpn_loc: 0.09158 time: 0.5091
last_time: 0.5260 data_time: 0.0105 last_data_time: 0.0083 lr:
0.00025 max_mem: 2458M
[07/21 23:27:13 d2.utils.events]: eta: 0:27:54 iter: 6779
total_loss: 0.4028 loss_cls: 0.06242 loss_box_reg: 0.2289
loss_rpn_cls: 0.01518 loss_rpn_loc: 0.0973 time: 0.5091
last_time: 0.4446 data_time: 0.0144 last_data_time: 0.0062 lr:
0.00025 max_mem: 2458M
[07/21 23:27:23 d2.utils.events]: eta: 0:27:43 iter: 6799
total_loss: 0.3807 loss_cls: 0.06012 loss_box_reg: 0.224
loss_rpn_cls: 0.01433 loss_rpn_loc: 0.0949 time: 0.5091
last_time: 0.4358 data_time: 0.0082 last_data_time: 0.0066 lr:
0.00025 max_mem: 2458M
[07/21 23:27:33 d2.utils.events]: eta: 0:27:33 iter: 6819
total_loss: 0.3927 loss_cls: 0.05757 loss_box_reg: 0.2263
loss_rpn_cls: 0.01326 loss_rpn_loc: 0.09705 time: 0.5091
last_time: 0.5129 data_time: 0.0102 last_data_time: 0.0065 lr:
0.00025 max_mem: 2458M
[07/21 23:27:43 d2.utils.events]: eta: 0:27:23 iter: 6839
total_loss: 0.4103 loss_cls: 0.06069 loss_box_reg: 0.2384
loss_rpn_cls: 0.01767 loss_rpn_loc: 0.09272 time: 0.5091
last_time: 0.5400 data_time: 0.0118 last_data_time: 0.0201 lr:
0.00025 max_mem: 2458M
[07/21 23:27:54 d2.utils.events]: eta: 0:27:13 iter: 6859
total_loss: 0.3721 loss_cls: 0.05711 loss_box_reg: 0.2107
loss_rpn_cls: 0.01261 loss_rpn_loc: 0.08744 time: 0.5091
last_time: 0.5338 data_time: 0.0123 last_data_time: 0.0145 lr:
0.00025 max_mem: 2458M
[07/21 23:28:04 d2.utils.events]: eta: 0:27:02 iter: 6879
total_loss: 0.3867 loss_cls: 0.05732 loss_box_reg: 0.2212
loss_rpn_cls: 0.01235 loss_rpn_loc: 0.08918 time: 0.5091
last_time: 0.4709 data_time: 0.0078 last_data_time: 0.0055 lr:
0.00025 max_mem: 2458M
[07/21 23:28:14 d2.utils.events]: eta: 0:26:51 iter: 6899
total_loss: 0.3794 loss_cls: 0.05772 loss_box_reg: 0.2198
loss_rpn_cls: 0.01158 loss_rpn_loc: 0.08151 time: 0.5091
last_time: 0.4494 data_time: 0.0107 last_data_time: 0.0058 lr:
0.00025 max_mem: 2458M
[07/21 23:28:25 d2.utils.events]: eta: 0:26:41 iter: 6919
total_loss: 0.3719 loss_cls: 0.05282 loss_box_reg: 0.2091
loss_rpn_cls: 0.01649 loss_rpn_loc: 0.08442 time: 0.5092
last_time: 0.5228 data_time: 0.0143 last_data_time: 0.0062 lr:
0.00025 max_mem: 2458M
[07/21 23:28:35 d2.utils.events]: eta: 0:26:31 iter: 6939
total_loss: 0.3679 loss_cls: 0.05437 loss_box_reg: 0.2148
loss_rpn_cls: 0.009213 loss_rpn_loc: 0.09173 time: 0.5092
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last_time: 0.4956 data_time: 0.0111 last_data_time: 0.0177 lr:  
0.00025 max_mem: 2458M  
[07/21 23:28:45 d2.utils.events]: eta: 0:26:20 iter: 6959  
total_loss: 0.4227 loss_cls: 0.06034 loss_box_reg: 0.2475  
loss_rpn_cls: 0.008365 loss_rpn_loc: 0.1024 time: 0.5091  
last_time: 0.5235 data_time: 0.0094 last_data_time: 0.0065 lr:  
0.00025 max_mem: 2458M  
[07/21 23:28:55 d2.utils.events]: eta: 0:26:09 iter: 6979  
total_loss: 0.4218 loss_cls: 0.05955 loss_box_reg: 0.2367  
loss_rpn_cls: 0.0165 loss_rpn_loc: 0.09567 time: 0.5091  
last_time: 0.5177 data_time: 0.0096 last_data_time: 0.0055 lr:  
0.00025 max_mem: 2458M  
[07/21 23:29:05 d2.utils.events]: eta: 0:25:58 iter: 6999  
total_loss: 0.401 loss_cls: 0.05852 loss_box_reg: 0.2213  
loss_rpn_cls: 0.01399 loss_rpn_loc: 0.1011 time: 0.5091  
last_time: 0.4474 data_time: 0.0084 last_data_time: 0.0083 lr:  
0.00025 max_mem: 2458M  
[07/21 23:29:15 d2.utils.events]: eta: 0:25:48 iter: 7019  
total_loss: 0.4024 loss_cls: 0.05997 loss_box_reg: 0.2147  
loss_rpn_cls: 0.01599 loss_rpn_loc: 0.09023 time: 0.5091  
last_time: 0.5214 data_time: 0.0073 last_data_time: 0.0055 lr:  
0.00025 max_mem: 2458M  
[07/21 23:29:25 d2.utils.events]: eta: 0:25:37 iter: 7039  
total_loss: 0.384 loss_cls: 0.05367 loss_box_reg: 0.2234  
loss_rpn_cls: 0.01624 loss_rpn_loc: 0.09507 time: 0.5091  
last_time: 0.5184 data_time: 0.0143 last_data_time: 0.0071 lr:  
0.00025 max_mem: 2458M  
[07/21 23:29:36 d2.utils.events]: eta: 0:25:27 iter: 7059  
total_loss: 0.3595 loss_cls: 0.05245 loss_box_reg: 0.2028  
loss_rpn_cls: 0.01433 loss_rpn_loc: 0.07931 time: 0.5092  
last_time: 0.5303 data_time: 0.0130 last_data_time: 0.0061 lr:  
0.00025 max_mem: 2458M  
[07/21 23:29:46 d2.utils.events]: eta: 0:25:16 iter: 7079  
total_loss: 0.3912 loss_cls: 0.06289 loss_box_reg: 0.2284  
loss_rpn_cls: 0.0122 loss_rpn_loc: 0.09235 time: 0.5092  
last_time: 0.5071 data_time: 0.0154 last_data_time: 0.0264 lr:  
0.00025 max_mem: 2458M  
[07/21 23:29:56 d2.utils.events]: eta: 0:25:06 iter: 7099  
total_loss: 0.3704 loss_cls: 0.05629 loss_box_reg: 0.2067  
loss_rpn_cls: 0.0104 loss_rpn_loc: 0.09412 time: 0.5092  
last_time: 0.4563 data_time: 0.0128 last_data_time: 0.0074 lr:  
0.00025 max_mem: 2458M  
[07/21 23:30:06 d2.utils.events]: eta: 0:24:56 iter: 7119  
total_loss: 0.3712 loss_cls: 0.05376 loss_box_reg: 0.2162  
loss_rpn_cls: 0.01093 loss_rpn_loc: 0.09384 time: 0.5092  
last_time: 0.4862 data_time: 0.0097 last_data_time: 0.0087 lr:  
0.00025 max_mem: 2458M  
[07/21 23:30:17 d2.utils.events]: eta: 0:24:45 iter: 7139  
total_loss: 0.3746 loss_cls: 0.06127 loss_box_reg: 0.2193
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loss_rpn_cls: 0.01196 loss_rpn_loc: 0.09085 time: 0.5092
last_time: 0.4919 data_time: 0.0117 last_data_time: 0.0080 lr:
0.00025 max_mem: 2458M
[07/21 23:30:27 d2.utils.events]: eta: 0:24:35 iter: 7159
total_loss: 0.3722 loss_cls: 0.05954 loss_box_reg: 0.2147
loss_rpn_cls: 0.0137 loss_rpn_loc: 0.08966 time: 0.5092
last_time: 0.4753 data_time: 0.0082 last_data_time: 0.0091 lr:
0.00025 max_mem: 2458M
[07/21 23:30:37 d2.utils.events]: eta: 0:24:25 iter: 7179
total_loss: 0.3739 loss_cls: 0.06011 loss_box_reg: 0.2124
loss_rpn_cls: 0.01128 loss_rpn_loc: 0.09058 time: 0.5092
last_time: 0.5279 data_time: 0.0146 last_data_time: 0.0151 lr:
0.00025 max_mem: 2458M
[07/21 23:30:47 d2.utils.events]: eta: 0:24:15 iter: 7199
total_loss: 0.3922 loss_cls: 0.05743 loss_box_reg: 0.2178
loss_rpn_cls: 0.01167 loss_rpn_loc: 0.1009 time: 0.5092
last_time: 0.5182 data_time: 0.0100 last_data_time: 0.0066 lr:
0.00025 max_mem: 2458M
[07/21 23:30:57 d2.utils.events]: eta: 0:24:05 iter: 7219
total_loss: 0.3924 loss_cls: 0.05775 loss_box_reg: 0.2055
loss_rpn_cls: 0.01322 loss_rpn_loc: 0.09838 time: 0.5091
last_time: 0.4999 data_time: 0.0087 last_data_time: 0.0215 lr:
0.00025 max_mem: 2458M
[07/21 23:31:08 d2.utils.events]: eta: 0:23:55 iter: 7239
total_loss: 0.3742 loss_cls: 0.05365 loss_box_reg: 0.2123
loss_rpn_cls: 0.01654 loss_rpn_loc: 0.091 time: 0.5092 last_time:
0.5249 data_time: 0.0096 last_data_time: 0.0084 lr: 0.00025
max_mem: 2458M
[07/21 23:31:18 d2.utils.events]: eta: 0:23:45 iter: 7259
total_loss: 0.37 loss_cls: 0.05797 loss_box_reg: 0.2019
loss_rpn_cls: 0.01495 loss_rpn_loc: 0.08745 time: 0.5092
last_time: 0.4503 data_time: 0.0105 last_data_time: 0.0135 lr:
0.00025 max_mem: 2458M
[07/21 23:31:28 d2.utils.events]: eta: 0:23:34 iter: 7279
total_loss: 0.37 loss_cls: 0.05455 loss_box_reg: 0.2177
loss_rpn_cls: 0.01546 loss_rpn_loc: 0.07811 time: 0.5092
last_time: 0.5285 data_time: 0.0119 last_data_time: 0.0060 lr:
0.00025 max_mem: 2458M
[07/21 23:31:38 d2.utils.events]: eta: 0:23:24 iter: 7299
total_loss: 0.349 loss_cls: 0.05404 loss_box_reg: 0.1983
loss_rpn_cls: 0.01427 loss_rpn_loc: 0.08432 time: 0.5092
last_time: 0.5190 data_time: 0.0085 last_data_time: 0.0053 lr:
0.00025 max_mem: 2458M
[07/21 23:31:49 d2.utils.events]: eta: 0:23:13 iter: 7319
total_loss: 0.372 loss_cls: 0.05685 loss_box_reg: 0.2104
loss_rpn_cls: 0.01492 loss_rpn_loc: 0.0846 time: 0.5092
last_time: 0.5139 data_time: 0.0195 last_data_time: 0.0062 lr:
0.00025 max_mem: 2458M
[07/21 23:31:59 d2.utils.events]: eta: 0:23:03 iter: 7339
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total_loss: 0.3561 loss_cls: 0.05456 loss_box_reg: 0.189
loss_rpn_cls: 0.01092 loss_rpn_loc: 0.08743 time: 0.5092
last_time: 0.4831 data_time: 0.0085 last_data_time: 0.0110 lr:
0.00025 max_mem: 2458M
[07/21 23:32:09 d2.utils.events]: eta: 0:22:52 iter: 7359
total_loss: 0.351 loss_cls: 0.05476 loss_box_reg: 0.1925
loss_rpn_cls: 0.01016 loss_rpn_loc: 0.08413 time: 0.5092
last_time: 0.5134 data_time: 0.0089 last_data_time: 0.0052 lr:
0.00025 max_mem: 2458M
[07/21 23:32:20 d2.utils.events]: eta: 0:22:42 iter: 7379
total_loss: 0.3708 loss_cls: 0.05116 loss_box_reg: 0.2095
loss_rpn_cls: 0.01202 loss_rpn_loc: 0.0922 time: 0.5092
last_time: 0.5199 data_time: 0.0143 last_data_time: 0.0063 lr:
0.00025 max_mem: 2458M
[07/21 23:32:30 d2.utils.events]: eta: 0:22:31 iter: 7399
total_loss: 0.3887 loss_cls: 0.05612 loss_box_reg: 0.2156
loss_rpn_cls: 0.0118 loss_rpn_loc: 0.09353 time: 0.5093
last_time: 0.5530 data_time: 0.0150 last_data_time: 0.0312 lr:
0.00025 max_mem: 2458M
[07/21 23:32:40 d2.utils.events]: eta: 0:22:21 iter: 7419
total_loss: 0.3688 loss_cls: 0.05507 loss_box_reg: 0.2015
loss_rpn_cls: 0.01466 loss_rpn_loc: 0.09463 time: 0.5092
last_time: 0.5219 data_time: 0.0070 last_data_time: 0.0058 lr:
0.00025 max_mem: 2458M
[07/21 23:32:50 d2.utils.events]: eta: 0:22:11 iter: 7439
total_loss: 0.3401 loss_cls: 0.0494 loss_box_reg: 0.1963
loss_rpn_cls: 0.0123 loss_rpn_loc: 0.08358 time: 0.5093
last_time: 0.5275 data_time: 0.0129 last_data_time: 0.0054 lr:
0.00025 max_mem: 2458M
[07/21 23:33:01 d2.utils.events]: eta: 0:22:01 iter: 7459
total_loss: 0.3531 loss_cls: 0.05429 loss_box_reg: 0.1877
loss_rpn_cls: 0.01508 loss_rpn_loc: 0.08193 time: 0.5093
last_time: 0.5137 data_time: 0.0124 last_data_time: 0.0059 lr:
0.00025 max_mem: 2458M
[07/21 23:33:11 d2.utils.events]: eta: 0:21:51 iter: 7479
total_loss: 0.3587 loss_cls: 0.0524 loss_box_reg: 0.2082
loss_rpn_cls: 0.01203 loss_rpn_loc: 0.07947 time: 0.5093
last_time: 0.5093 data_time: 0.0089 last_data_time: 0.0299 lr:
0.00025 max_mem: 2458M
[07/21 23:33:21 d2.utils.events]: eta: 0:21:41 iter: 7499
total_loss: 0.3485 loss_cls: 0.05421 loss_box_reg: 0.1909
loss_rpn_cls: 0.01118 loss_rpn_loc: 0.08795 time: 0.5093
last_time: 0.5223 data_time: 0.0107 last_data_time: 0.0054 lr:
0.00025 max_mem: 2458M
[07/21 23:33:31 d2.utils.events]: eta: 0:21:30 iter: 7519
total_loss: 0.3618 loss_cls: 0.05116 loss_box_reg: 0.193
loss_rpn_cls: 0.01449 loss_rpn_loc: 0.08494 time: 0.5093
last_time: 0.5106 data_time: 0.0144 last_data_time: 0.0058 lr:
0.00025 max_mem: 2458M
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[07/21 23:33:42 d2.utils.events]: eta: 0:21:20 iter: 7539
total_loss: 0.3611 loss_cls: 0.05538 loss_box_reg: 0.2055
loss_rpn_cls: 0.007594 loss_rpn_loc: 0.09445 time: 0.5093
last_time: 0.5557 data_time: 0.0128 last_data_time: 0.0119 lr:
0.00025 max_mem: 2458M
[07/21 23:33:52 d2.utils.events]: eta: 0:21:09 iter: 7559
total_loss: 0.3663 loss_cls: 0.05365 loss_box_reg: 0.2086
loss_rpn_cls: 0.01428 loss_rpn_loc: 0.09105 time: 0.5093
last_time: 0.5261 data_time: 0.0089 last_data_time: 0.0052 lr:
0.00025 max_mem: 2458M
[07/21 23:34:02 d2.utils.events]: eta: 0:20:59 iter: 7579
total_loss: 0.3699 loss_cls: 0.04982 loss_box_reg: 0.1988
loss_rpn_cls: 0.01488 loss_rpn_loc: 0.09103 time: 0.5093
last_time: 0.4185 data_time: 0.0140 last_data_time: 0.0143 lr:
0.00025 max_mem: 2458M
[07/21 23:34:13 d2.utils.events]: eta: 0:20:49 iter: 7599
total_loss: 0.366 loss_cls: 0.05119 loss_box_reg: 0.2075
loss_rpn_cls: 0.01328 loss_rpn_loc: 0.08983 time: 0.5093
last_time: 0.5357 data_time: 0.0138 last_data_time: 0.0260 lr:
0.00025 max_mem: 2458M
[07/21 23:34:23 d2.utils.events]: eta: 0:20:38 iter: 7619
total_loss: 0.3402 loss_cls: 0.0565 loss_box_reg: 0.189
loss_rpn_cls: 0.01071 loss_rpn_loc: 0.08648 time: 0.5093
last_time: 0.5276 data_time: 0.0079 last_data_time: 0.0082 lr:
0.00025 max_mem: 2458M
[07/21 23:34:33 d2.utils.events]: eta: 0:20:28 iter: 7639
total_loss: 0.341 loss_cls: 0.04972 loss_box_reg: 0.1993
loss_rpn_cls: 0.0178 loss_rpn_loc: 0.07754 time: 0.5094
last_time: 0.4774 data_time: 0.0135 last_data_time: 0.0100 lr:
0.00025 max_mem: 2458M
[07/21 23:34:44 d2.utils.events]: eta: 0:20:17 iter: 7659
total_loss: 0.3255 loss_cls: 0.05045 loss_box_reg: 0.1938
loss_rpn_cls: 0.01379 loss_rpn_loc: 0.08031 time: 0.5094
last_time: 0.5218 data_time: 0.0131 last_data_time: 0.0063 lr:
0.00025 max_mem: 2458M
[07/21 23:34:54 d2.utils.events]: eta: 0:20:07 iter: 7679
total_loss: 0.3537 loss_cls: 0.05531 loss_box_reg: 0.1997
loss_rpn_cls: 0.01597 loss_rpn_loc: 0.08674 time: 0.5094
last_time: 0.5284 data_time: 0.0071 last_data_time: 0.0054 lr:
0.00025 max_mem: 2458M
[07/21 23:35:04 d2.utils.events]: eta: 0:19:57 iter: 7699
total_loss: 0.3298 loss_cls: 0.04943 loss_box_reg: 0.1901
loss_rpn_cls: 0.01378 loss_rpn_loc: 0.07591 time: 0.5094
last_time: 0.5114 data_time: 0.0092 last_data_time: 0.0055 lr:
0.00025 max_mem: 2458M
[07/21 23:35:14 d2.utils.events]: eta: 0:19:46 iter: 7719
total_loss: 0.343 loss_cls: 0.0528 loss_box_reg: 0.1926
loss_rpn_cls: 0.01095 loss_rpn_loc: 0.08332 time: 0.5094
last_time: 0.5145 data_time: 0.0147 last_data_time: 0.0057 lr:
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0.00025 max_mem: 2458M
[07/21 23:35:24 d2.utils.events]: eta: 0:19:36 iter: 7739
total_loss: 0.3518 loss_cls: 0.04845 loss_box_reg: 0.1914
loss_rpn_cls: 0.01271 loss_rpn_loc: 0.0897 time: 0.5094
last_time: 0.5325 data_time: 0.0140 last_data_time: 0.0261 lr:
0.00025 max_mem: 2458M
[07/21 23:35:35 d2.utils.events]: eta: 0:19:26 iter: 7759
total_loss: 0.3063 loss_cls: 0.04451 loss_box_reg: 0.1792
loss_rpn_cls: 0.01365 loss_rpn_loc: 0.07751 time: 0.5094
last_time: 0.5304 data_time: 0.0078 last_data_time: 0.0057 lr:
0.00025 max_mem: 2458M
[07/21 23:35:45 d2.utils.events]: eta: 0:19:15 iter: 7779
total_loss: 0.3373 loss_cls: 0.05275 loss_box_reg: 0.1844
loss_rpn_cls: 0.01532 loss_rpn_loc: 0.08334 time: 0.5094
last_time: 0.4118 data_time: 0.0131 last_data_time: 0.0052 lr:
0.00025 max_mem: 2458M
[07/21 23:35:55 d2.utils.events]: eta: 0:19:05 iter: 7799
total_loss: 0.3444 loss_cls: 0.05451 loss_box_reg: 0.1799
loss_rpn_cls: 0.01465 loss_rpn_loc: 0.08559 time: 0.5095
last_time: 0.5479 data_time: 0.0135 last_data_time: 0.0275 lr:
0.00025 max_mem: 2458M
[07/21 23:36:06 d2.utils.events]: eta: 0:18:55 iter: 7819
total_loss: 0.3364 loss_cls: 0.04805 loss_box_reg: 0.1844
loss_rpn_cls: 0.01402 loss_rpn_loc: 0.0844 time: 0.5094
last_time: 0.5333 data_time: 0.0098 last_data_time: 0.0059 lr:
0.00025 max_mem: 2458M
[07/21 23:36:16 d2.utils.events]: eta: 0:18:44 iter: 7839
total_loss: 0.3742 loss_cls: 0.05462 loss_box_reg: 0.199
loss_rpn_cls: 0.0135 loss_rpn_loc: 0.09542 time: 0.5094
last_time: 0.4538 data_time: 0.0118 last_data_time: 0.0057 lr:
0.00025 max_mem: 2458M
[07/21 23:36:26 d2.utils.events]: eta: 0:18:34 iter: 7859
total_loss: 0.316 loss_cls: 0.05039 loss_box_reg: 0.185
loss_rpn_cls: 0.009601 loss_rpn_loc: 0.0799 time: 0.5095
last_time: 0.4168 data_time: 0.0161 last_data_time: 0.0056 lr:
0.00025 max_mem: 2458M
[07/21 23:36:36 d2.utils.events]: eta: 0:18:24 iter: 7879
total_loss: 0.3429 loss_cls: 0.04658 loss_box_reg: 0.2017
loss_rpn_cls: 0.0121 loss_rpn_loc: 0.08648 time: 0.5095
last_time: 0.5281 data_time: 0.0082 last_data_time: 0.0162 lr:
0.00025 max_mem: 2458M
[07/21 23:36:47 d2.utils.events]: eta: 0:18:13 iter: 7899
total_loss: 0.3519 loss_cls: 0.05165 loss_box_reg: 0.2124
loss_rpn_cls: 0.01323 loss_rpn_loc: 0.08374 time: 0.5095
last_time: 0.5173 data_time: 0.0079 last_data_time: 0.0060 lr:
0.00025 max_mem: 2458M
[07/21 23:36:57 d2.utils.events]: eta: 0:18:03 iter: 7919
total_loss: 0.3294 loss_cls: 0.04721 loss_box_reg: 0.1808
loss_rpn_cls: 0.01099 loss_rpn_loc: 0.08596 time: 0.5095
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last_time: 0.5257 data_time: 0.0093 last_data_time: 0.0074 lr:  
0.00025 max_mem: 2458M  
[07/21 23:37:07 d2.utils.events]: eta: 0:17:52 iter: 7939  
total_loss: 0.334 loss_cls: 0.05451 loss_box_reg: 0.1967  
loss_rpn_cls: 0.01616 loss_rpn_loc: 0.07818 time: 0.5095  
last_time: 0.5410 data_time: 0.0100 last_data_time: 0.0287 lr:  
0.00025 max_mem: 2458M  
[07/21 23:37:17 d2.utils.events]: eta: 0:17:42 iter: 7959  
total_loss: 0.3151 loss_cls: 0.0472 loss_box_reg: 0.1761  
loss_rpn_cls: 0.01128 loss_rpn_loc: 0.07576 time: 0.5095  
last_time: 0.4759 data_time: 0.0096 last_data_time: 0.0053 lr:  
0.00025 max_mem: 2458M  
[07/21 23:37:27 d2.utils.events]: eta: 0:17:32 iter: 7979  
total_loss: 0.3493 loss_cls: 0.04995 loss_box_reg: 0.1842  
loss_rpn_cls: 0.01481 loss_rpn_loc: 0.08015 time: 0.5095  
last_time: 0.5385 data_time: 0.0141 last_data_time: 0.0144 lr:  
0.00025 max_mem: 2458M  
[07/21 23:37:38 d2.utils.events]: eta: 0:17:21 iter: 7999  
total_loss: 0.307 loss_cls: 0.0481 loss_box_reg: 0.1794  
loss_rpn_cls: 0.01116 loss_rpn_loc: 0.07698 time: 0.5095  
last_time: 0.5489 data_time: 0.0125 last_data_time: 0.0243 lr:  
0.00025 max_mem: 2458M  
[07/21 23:37:48 d2.utils.events]: eta: 0:17:11 iter: 8019  
total_loss: 0.3396 loss_cls: 0.0499 loss_box_reg: 0.1926  
loss_rpn_cls: 0.01294 loss_rpn_loc: 0.08486 time: 0.5095  
last_time: 0.5212 data_time: 0.0082 last_data_time: 0.0071 lr:  
0.00025 max_mem: 2458M  
[07/21 23:37:59 d2.utils.events]: eta: 0:17:01 iter: 8039  
total_loss: 0.3193 loss_cls: 0.04196 loss_box_reg: 0.1751  
loss_rpn_cls: 0.01243 loss_rpn_loc: 0.07611 time: 0.5095  
last_time: 0.5181 data_time: 0.0124 last_data_time: 0.0091 lr:  
0.00025 max_mem: 2458M  
[07/21 23:38:09 d2.utils.events]: eta: 0:16:50 iter: 8059  
total_loss: 0.3283 loss_cls: 0.04765 loss_box_reg: 0.1892  
loss_rpn_cls: 0.01436 loss_rpn_loc: 0.08462 time: 0.5095  
last_time: 0.5186 data_time: 0.0129 last_data_time: 0.0060 lr:  
0.00025 max_mem: 2458M  
[07/21 23:38:19 d2.utils.events]: eta: 0:16:40 iter: 8079  
total_loss: 0.3255 loss_cls: 0.04991 loss_box_reg: 0.1926  
loss_rpn_cls: 0.01148 loss_rpn_loc: 0.07751 time: 0.5095  
last_time: 0.5361 data_time: 0.0072 last_data_time: 0.0172 lr:  
0.00025 max_mem: 2458M  
[07/21 23:38:29 d2.utils.events]: eta: 0:16:29 iter: 8099  
total_loss: 0.3444 loss_cls: 0.04603 loss_box_reg: 0.1968  
loss_rpn_cls: 0.01629 loss_rpn_loc: 0.08595 time: 0.5095  
last_time: 0.5271 data_time: 0.0134 last_data_time: 0.0065 lr:  
0.00025 max_mem: 2458M  
[07/21 23:38:39 d2.utils.events]: eta: 0:16:19 iter: 8119  
total_loss: 0.3396 loss_cls: 0.05089 loss_box_reg: 0.1784
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loss_rpn_cls: 0.01727 loss_rpn_loc: 0.07774 time: 0.5095
last_time: 0.4773 data_time: 0.0144 last_data_time: 0.0064 lr:
0.00025 max_mem: 2458M
[07/21 23:38:50 d2.utils.events]: eta: 0:16:09 iter: 8139
total_loss: 0.326 loss_cls: 0.04772 loss_box_reg: 0.1785
loss_rpn_cls: 0.01633 loss_rpn_loc: 0.07991 time: 0.5096
last_time: 0.5373 data_time: 0.0140 last_data_time: 0.0163 lr:
0.00025 max_mem: 2458M
[07/21 23:39:00 d2.utils.events]: eta: 0:15:58 iter: 8159
total_loss: 0.3245 loss_cls: 0.04743 loss_box_reg: 0.1772
loss_rpn_cls: 0.01412 loss_rpn_loc: 0.08472 time: 0.5095
last_time: 0.5257 data_time: 0.0104 last_data_time: 0.0055 lr:
0.00025 max_mem: 2458M
[07/21 23:39:10 d2.utils.events]: eta: 0:15:48 iter: 8179
total_loss: 0.293 loss_cls: 0.04285 loss_box_reg: 0.1615
loss_rpn_cls: 0.009251 loss_rpn_loc: 0.0738 time: 0.5095
last_time: 0.5270 data_time: 0.0105 last_data_time: 0.0130 lr:
0.00025 max_mem: 2458M
[07/21 23:39:20 d2.utils.events]: eta: 0:15:37 iter: 8199
total_loss: 0.337 loss_cls: 0.05352 loss_box_reg: 0.2002
loss_rpn_cls: 0.01455 loss_rpn_loc: 0.0799 time: 0.5095
last_time: 0.5158 data_time: 0.0098 last_data_time: 0.0063 lr:
0.00025 max_mem: 2458M
[07/21 23:39:30 d2.utils.events]: eta: 0:15:27 iter: 8219
total_loss: 0.3171 loss_cls: 0.04823 loss_box_reg: 0.1733
loss_rpn_cls: 0.01252 loss_rpn_loc: 0.08226 time: 0.5095
last_time: 0.5409 data_time: 0.0080 last_data_time: 0.0197 lr:
0.00025 max_mem: 2458M
[07/21 23:39:41 d2.utils.events]: eta: 0:15:16 iter: 8239
total_loss: 0.3425 loss_cls: 0.05331 loss_box_reg: 0.1919
loss_rpn_cls: 0.01304 loss_rpn_loc: 0.08768 time: 0.5096
last_time: 0.5251 data_time: 0.0175 last_data_time: 0.0056 lr:
0.00025 max_mem: 2458M
[07/21 23:39:51 d2.utils.events]: eta: 0:15:06 iter: 8259
total_loss: 0.3395 loss_cls: 0.04578 loss_box_reg: 0.187
loss_rpn_cls: 0.0192 loss_rpn_loc: 0.07988 time: 0.5095
last_time: 0.5492 data_time: 0.0104 last_data_time: 0.0275 lr:
0.00025 max_mem: 2458M
[07/21 23:40:01 d2.utils.events]: eta: 0:14:55 iter: 8279
total_loss: 0.3519 loss_cls: 0.0456 loss_box_reg: 0.191
loss_rpn_cls: 0.01542 loss_rpn_loc: 0.09113 time: 0.5095
last_time: 0.4783 data_time: 0.0090 last_data_time: 0.0060 lr:
0.00025 max_mem: 2458M
[07/21 23:40:12 d2.utils.events]: eta: 0:14:45 iter: 8299
total_loss: 0.3408 loss_cls: 0.04855 loss_box_reg: 0.1952
loss_rpn_cls: 0.01265 loss_rpn_loc: 0.08438 time: 0.5096
last_time: 0.5195 data_time: 0.0104 last_data_time: 0.0056 lr:
0.00025 max_mem: 2458M
[07/21 23:40:22 d2.utils.events]: eta: 0:14:34 iter: 8319
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total_loss: 0.34 loss_cls: 0.05301 loss_box_reg: 0.1965
loss_rpn_cls: 0.01149 loss_rpn_loc: 0.08927 time: 0.5095
last_time: 0.5139 data_time: 0.0108 last_data_time: 0.0071 lr:
0.00025 max_mem: 2458M
[07/21 23:40:32 d2.utils.events]: eta: 0:14:24 iter: 8339
total_loss: 0.3127 loss_cls: 0.04661 loss_box_reg: 0.1645
loss_rpn_cls: 0.01318 loss_rpn_loc: 0.0737 time: 0.5096
last_time: 0.5399 data_time: 0.0085 last_data_time: 0.0080 lr:
0.00025 max_mem: 2458M
[07/21 23:40:42 d2.utils.events]: eta: 0:14:14 iter: 8359
total_loss: 0.3039 loss_cls: 0.04637 loss_box_reg: 0.1687
loss_rpn_cls: 0.01423 loss_rpn_loc: 0.07338 time: 0.5095
last_time: 0.4193 data_time: 0.0095 last_data_time: 0.0054 lr:
0.00025 max_mem: 2458M
[07/21 23:40:52 d2.utils.events]: eta: 0:14:03 iter: 8379
total_loss: 0.3497 loss_cls: 0.05216 loss_box_reg: 0.1819
loss_rpn_cls: 0.01122 loss_rpn_loc: 0.08552 time: 0.5096
last_time: 0.5193 data_time: 0.0099 last_data_time: 0.0054 lr:
0.00025 max_mem: 2458M
[07/21 23:41:02 d2.utils.events]: eta: 0:13:53 iter: 8399
total_loss: 0.3116 loss_cls: 0.04303 loss_box_reg: 0.1811
loss_rpn_cls: 0.01905 loss_rpn_loc: 0.07932 time: 0.5095
last_time: 0.4950 data_time: 0.0112 last_data_time: 0.0166 lr:
0.00025 max_mem: 2458M
[07/21 23:41:13 d2.utils.events]: eta: 0:13:43 iter: 8419
total_loss: 0.3005 loss_cls: 0.04394 loss_box_reg: 0.1719
loss_rpn_cls: 0.01085 loss_rpn_loc: 0.07906 time: 0.5096
last_time: 0.5221 data_time: 0.0084 last_data_time: 0.0052 lr:
0.00025 max_mem: 2458M
[07/21 23:41:23 d2.utils.events]: eta: 0:13:32 iter: 8439
total_loss: 0.3344 loss_cls: 0.04698 loss_box_reg: 0.1864
loss_rpn_cls: 0.01461 loss_rpn_loc: 0.07723 time: 0.5096
last_time: 0.5238 data_time: 0.0114 last_data_time: 0.0053 lr:
0.00025 max_mem: 2458M
[07/21 23:41:34 d2.utils.events]: eta: 0:13:22 iter: 8459
total_loss: 0.2891 loss_cls: 0.04645 loss_box_reg: 0.1554
loss_rpn_cls: 0.01197 loss_rpn_loc: 0.07819 time: 0.5096
last_time: 0.5211 data_time: 0.0121 last_data_time: 0.0063 lr:
0.00025 max_mem: 2458M
[07/21 23:41:44 d2.utils.events]: eta: 0:13:11 iter: 8479
total_loss: 0.2899 loss_cls: 0.04158 loss_box_reg: 0.1637
loss_rpn_cls: 0.01346 loss_rpn_loc: 0.07941 time: 0.5096
last_time: 0.5161 data_time: 0.0080 last_data_time: 0.0053 lr:
0.00025 max_mem: 2458M
[07/21 23:41:54 d2.utils.events]: eta: 0:13:01 iter: 8499
total_loss: 0.2854 loss_cls: 0.04803 loss_box_reg: 0.1551
loss_rpn_cls: 0.01301 loss_rpn_loc: 0.07557 time: 0.5096
last_time: 0.5251 data_time: 0.0104 last_data_time: 0.0063 lr:
0.00025 max_mem: 2458M
[07/21 23:42:04 d2.utils.events]: eta: 0:12:51 iter: 8519
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total_loss: 0.3266 loss_cls: 0.04938 loss_box_reg: 0.1804
loss_rpn_cls: 0.01331 loss_rpn_loc: 0.0774 time: 0.5096
last_time: 0.5249 data_time: 0.0103 last_data_time: 0.0055 lr:
0.00025 max_mem: 2458M
[07/21 23:42:15 d2.utils.events]: eta: 0:12:40 iter: 8539
total_loss: 0.3239 loss_cls: 0.04623 loss_box_reg: 0.1777
loss_rpn_cls: 0.01293 loss_rpn_loc: 0.08366 time: 0.5096
last_time: 0.5506 data_time: 0.0077 last_data_time: 0.0288 lr:
0.00025 max_mem: 2458M
[07/21 23:42:25 d2.utils.events]: eta: 0:12:30 iter: 8559
total_loss: 0.3409 loss_cls: 0.04553 loss_box_reg: 0.1842
loss_rpn_cls: 0.01315 loss_rpn_loc: 0.08434 time: 0.5096
last_time: 0.5197 data_time: 0.0092 last_data_time: 0.0059 lr:
0.00025 max_mem: 2458M
[07/21 23:42:35 d2.utils.events]: eta: 0:12:19 iter: 8579
total_loss: 0.3218 loss_cls: 0.04847 loss_box_reg: 0.18
loss_rpn_cls: 0.01389 loss_rpn_loc: 0.07372 time: 0.5096
last_time: 0.5225 data_time: 0.0099 last_data_time: 0.0060 lr:
0.00025 max_mem: 2458M
[07/21 23:42:45 d2.utils.events]: eta: 0:12:09 iter: 8599
total_loss: 0.3007 loss_cls: 0.04548 loss_box_reg: 0.1648
loss_rpn_cls: 0.009111 loss_rpn_loc: 0.07645 time: 0.5096
last_time: 0.5529 data_time: 0.0133 last_data_time: 0.0329 lr:
0.00025 max_mem: 2458M
[07/21 23:42:55 d2.utils.events]: eta: 0:11:58 iter: 8619
total_loss: 0.3503 loss_cls: 0.04838 loss_box_reg: 0.1971
loss_rpn_cls: 0.01441 loss_rpn_loc: 0.08825 time: 0.5096
last_time: 0.4791 data_time: 0.0068 last_data_time: 0.0082 lr:
0.00025 max_mem: 2458M
[07/21 23:43:05 d2.utils.events]: eta: 0:11:48 iter: 8639
total_loss: 0.3022 loss_cls: 0.04665 loss_box_reg: 0.1658
loss_rpn_cls: 0.01528 loss_rpn_loc: 0.07827 time: 0.5096
last_time: 0.4156 data_time: 0.0121 last_data_time: 0.0067 lr:
0.00025 max_mem: 2458M
[07/21 23:43:16 d2.utils.events]: eta: 0:11:38 iter: 8659
total_loss: 0.32 loss_cls: 0.0442 loss_box_reg: 0.179 loss_rpn_cls:
0.01252 loss_rpn_loc: 0.07683 time: 0.5096 last_time: 0.5274
data_time: 0.0132 last_data_time: 0.0051 lr: 0.00025 max_mem:
2458M
[07/21 23:43:26 d2.utils.events]: eta: 0:11:27 iter: 8679
total_loss: 0.3225 loss_cls: 0.04374 loss_box_reg: 0.1903
loss_rpn_cls: 0.01178 loss_rpn_loc: 0.08384 time: 0.5096
last_time: 0.5519 data_time: 0.0073 last_data_time: 0.0100 lr:
0.00025 max_mem: 2458M
[07/21 23:43:37 d2.utils.events]: eta: 0:11:17 iter: 8699
total_loss: 0.3194 loss_cls: 0.04357 loss_box_reg: 0.1729
loss_rpn_cls: 0.01769 loss_rpn_loc: 0.07935 time: 0.5097
last_time: 0.5187 data_time: 0.0130 last_data_time: 0.0058 lr:
0.00025 max_mem: 2458M
```

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[07/21 23:43:47 d2.utils.events]: eta: 0:11:07 iter: 8719
total_loss: 0.31 loss_cls: 0.04757 loss_box_reg: 0.1676
loss_rpn_cls: 0.01017 loss_rpn_loc: 0.07949 time: 0.5097
last_time: 0.5188 data_time: 0.0119 last_data_time: 0.0067 lr:
0.00025 max_mem: 2458M
[07/21 23:43:57 d2.utils.events]: eta: 0:10:56 iter: 8739
total_loss: 0.3007 loss_cls: 0.0469 loss_box_reg: 0.1634
loss_rpn_cls: 0.009611 loss_rpn_loc: 0.07331 time: 0.5097
last_time: 0.5361 data_time: 0.0100 last_data_time: 0.0257 lr:
0.00025 max_mem: 2458M
[07/21 23:44:07 d2.utils.events]: eta: 0:10:46 iter: 8759
total_loss: 0.3161 loss_cls: 0.04261 loss_box_reg: 0.1684
loss_rpn_cls: 0.01505 loss_rpn_loc: 0.07873 time: 0.5097
last_time: 0.5223 data_time: 0.0106 last_data_time: 0.0061 lr:
0.00025 max_mem: 2458M
[07/21 23:44:18 d2.utils.events]: eta: 0:10:35 iter: 8779
total_loss: 0.3331 loss_cls: 0.04147 loss_box_reg: 0.1838
loss_rpn_cls: 0.0137 loss_rpn_loc: 0.08175 time: 0.5097
last_time: 0.5217 data_time: 0.0095 last_data_time: 0.0063 lr:
0.00025 max_mem: 2458M
[07/21 23:44:28 d2.utils.events]: eta: 0:10:25 iter: 8799
total_loss: 0.3305 loss_cls: 0.04294 loss_box_reg: 0.1865
loss_rpn_cls: 0.01439 loss_rpn_loc: 0.08412 time: 0.5097
last_time: 0.5384 data_time: 0.0156 last_data_time: 0.0242 lr:
0.00025 max_mem: 2458M
[07/21 23:44:38 d2.utils.events]: eta: 0:10:14 iter: 8819
total_loss: 0.3205 loss_cls: 0.04404 loss_box_reg: 0.1757
loss_rpn_cls: 0.01277 loss_rpn_loc: 0.07503 time: 0.5097
last_time: 0.5194 data_time: 0.0076 last_data_time: 0.0079 lr:
0.00025 max_mem: 2458M
[07/21 23:44:48 d2.utils.events]: eta: 0:10:04 iter: 8839
total_loss: 0.3178 loss_cls: 0.04552 loss_box_reg: 0.1876
loss_rpn_cls: 0.01048 loss_rpn_loc: 0.07856 time: 0.5097
last_time: 0.4647 data_time: 0.0084 last_data_time: 0.0054 lr:
0.00025 max_mem: 2458M
[07/21 23:44:58 d2.utils.events]: eta: 0:09:53 iter: 8859
total_loss: 0.3304 loss_cls: 0.04073 loss_box_reg: 0.184
loss_rpn_cls: 0.01152 loss_rpn_loc: 0.0863 time: 0.5097
last_time: 0.5153 data_time: 0.0125 last_data_time: 0.0064 lr:
0.00025 max_mem: 2458M
[07/21 23:45:09 d2.utils.events]: eta: 0:09:43 iter: 8879
total_loss: 0.2987 loss_cls: 0.04109 loss_box_reg: 0.1742
loss_rpn_cls: 0.01007 loss_rpn_loc: 0.07409 time: 0.5097
last_time: 0.5401 data_time: 0.0105 last_data_time: 0.0272 lr:
0.00025 max_mem: 2458M
[07/21 23:45:19 d2.utils.events]: eta: 0:09:33 iter: 8899
total_loss: 0.2636 loss_cls: 0.03741 loss_box_reg: 0.1452
loss_rpn_cls: 0.009871 loss_rpn_loc: 0.07464 time: 0.5097
last_time: 0.4775 data_time: 0.0078 last_data_time: 0.0082 lr:
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0.00025 max_mem: 2458M
[07/21 23:45:29 d2.utils.events]: eta: 0:09:22 iter: 8919
total_loss: 0.3081 loss_cls: 0.04689 loss_box_reg: 0.1761
loss_rpn_cls: 0.01132 loss_rpn_loc: 0.08825 time: 0.5097
last_time: 0.5208 data_time: 0.0138 last_data_time: 0.0061 lr:
0.00025 max_mem: 2458M
[07/21 23:45:40 d2.utils.events]: eta: 0:09:12 iter: 8939
total_loss: 0.2919 loss_cls: 0.04262 loss_box_reg: 0.1552
loss_rpn_cls: 0.01628 loss_rpn_loc: 0.07755 time: 0.5097
last_time: 0.4834 data_time: 0.0083 last_data_time: 0.0133 lr:
0.00025 max_mem: 2458M
[07/21 23:45:50 d2.utils.events]: eta: 0:09:02 iter: 8959
total_loss: 0.2888 loss_cls: 0.03977 loss_box_reg: 0.1697
loss_rpn_cls: 0.01567 loss_rpn_loc: 0.07441 time: 0.5097
last_time: 0.4559 data_time: 0.0106 last_data_time: 0.0065 lr:
0.00025 max_mem: 2458M
[07/21 23:46:00 d2.utils.events]: eta: 0:08:51 iter: 8979
total_loss: 0.2991 loss_cls: 0.03983 loss_box_reg: 0.1723
loss_rpn_cls: 0.01445 loss_rpn_loc: 0.0815 time: 0.5097
last_time: 0.5297 data_time: 0.0117 last_data_time: 0.0061 lr:
0.00025 max_mem: 2458M
[07/21 23:46:10 d2.utils.events]: eta: 0:08:41 iter: 8999
total_loss: 0.2997 loss_cls: 0.04628 loss_box_reg: 0.1593
loss_rpn_cls: 0.01064 loss_rpn_loc: 0.07188 time: 0.5097
last_time: 0.4883 data_time: 0.0099 last_data_time: 0.0082 lr:
0.00025 max_mem: 2458M
[07/21 23:46:20 d2.utils.events]: eta: 0:08:30 iter: 9019
total_loss: 0.312 loss_cls: 0.04133 loss_box_reg: 0.1584
loss_rpn_cls: 0.01588 loss_rpn_loc: 0.08386 time: 0.5097
last_time: 0.5264 data_time: 0.0082 last_data_time: 0.0060 lr:
0.00025 max_mem: 2458M
[07/21 23:46:31 d2.utils.events]: eta: 0:08:20 iter: 9039
total_loss: 0.2853 loss_cls: 0.0431 loss_box_reg: 0.1539
loss_rpn_cls: 0.01135 loss_rpn_loc: 0.0717 time: 0.5097
last_time: 0.5175 data_time: 0.0104 last_data_time: 0.0084 lr:
0.00025 max_mem: 2458M
[07/21 23:46:41 d2.utils.events]: eta: 0:08:09 iter: 9059
total_loss: 0.2889 loss_cls: 0.04252 loss_box_reg: 0.1609
loss_rpn_cls: 0.0114 loss_rpn_loc: 0.06964 time: 0.5097
last_time: 0.5178 data_time: 0.0145 last_data_time: 0.0050 lr:
0.00025 max_mem: 2458M
[07/21 23:46:51 d2.utils.events]: eta: 0:07:59 iter: 9079
total_loss: 0.2943 loss_cls: 0.04177 loss_box_reg: 0.1662
loss_rpn_cls: 0.01534 loss_rpn_loc: 0.0769 time: 0.5097
last_time: 0.5439 data_time: 0.0099 last_data_time: 0.0267 lr:
0.00025 max_mem: 2458M
[07/21 23:47:01 d2.utils.events]: eta: 0:07:49 iter: 9099
total_loss: 0.2651 loss_cls: 0.04225 loss_box_reg: 0.1419
loss_rpn_cls: 0.01168 loss_rpn_loc: 0.06584 time: 0.5097
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last_time: 0.4514 data_time: 0.0097 last_data_time: 0.0059 lr:  
0.00025 max_mem: 2458M  
[07/21 23:47:11 d2.utils.events]: eta: 0:07:38 iter: 9119  
total_loss: 0.313 loss_cls: 0.04185 loss_box_reg: 0.1755  
loss_rpn_cls: 0.009964 loss_rpn_loc: 0.08439 time: 0.5097  
last_time: 0.5232 data_time: 0.0118 last_data_time: 0.0068 lr:  
0.00025 max_mem: 2458M  
[07/21 23:47:22 d2.utils.events]: eta: 0:07:28 iter: 9139  
total_loss: 0.2813 loss_cls: 0.04349 loss_box_reg: 0.147  
loss_rpn_cls: 0.009711 loss_rpn_loc: 0.07832 time: 0.5098  
last_time: 0.4994 data_time: 0.0152 last_data_time: 0.0290 lr:  
0.00025 max_mem: 2458M  
[07/21 23:47:32 d2.utils.events]: eta: 0:07:17 iter: 9159  
total_loss: 0.2856 loss_cls: 0.04021 loss_box_reg: 0.1442  
loss_rpn_cls: 0.009039 loss_rpn_loc: 0.0824 time: 0.5098  
last_time: 0.5206 data_time: 0.0112 last_data_time: 0.0056 lr:  
0.00025 max_mem: 2458M  
[07/21 23:47:42 d2.utils.events]: eta: 0:07:07 iter: 9179  
total_loss: 0.2681 loss_cls: 0.0397 loss_box_reg: 0.1569  
loss_rpn_cls: 0.009255 loss_rpn_loc: 0.07154 time: 0.5098  
last_time: 0.5193 data_time: 0.0079 last_data_time: 0.0055 lr:  
0.00025 max_mem: 2458M  
[07/21 23:47:53 d2.utils.events]: eta: 0:06:57 iter: 9199  
total_loss: 0.2951 loss_cls: 0.04188 loss_box_reg: 0.1604  
loss_rpn_cls: 0.01345 loss_rpn_loc: 0.08314 time: 0.5098  
last_time: 0.5400 data_time: 0.0113 last_data_time: 0.0292 lr:  
0.00025 max_mem: 2458M  
[07/21 23:48:03 d2.utils.events]: eta: 0:06:46 iter: 9219  
total_loss: 0.2809 loss_cls: 0.04077 loss_box_reg: 0.1605  
loss_rpn_cls: 0.008023 loss_rpn_loc: 0.07766 time: 0.5098  
last_time: 0.4578 data_time: 0.0094 last_data_time: 0.0084 lr:  
0.00025 max_mem: 2458M  
[07/21 23:48:13 d2.utils.events]: eta: 0:06:36 iter: 9239  
total_loss: 0.2864 loss_cls: 0.04129 loss_box_reg: 0.1534  
loss_rpn_cls: 0.01796 loss_rpn_loc: 0.07231 time: 0.5098  
last_time: 0.5207 data_time: 0.0095 last_data_time: 0.0075 lr:  
0.00025 max_mem: 2458M  
[07/21 23:48:24 d2.utils.events]: eta: 0:06:25 iter: 9259  
total_loss: 0.2813 loss_cls: 0.04072 loss_box_reg: 0.1526  
loss_rpn_cls: 0.00918 loss_rpn_loc: 0.06932 time: 0.5098  
last_time: 0.5138 data_time: 0.0160 last_data_time: 0.0079 lr:  
0.00025 max_mem: 2458M  
[07/21 23:48:34 d2.utils.events]: eta: 0:06:15 iter: 9279  
total_loss: 0.2737 loss_cls: 0.03827 loss_box_reg: 0.145  
loss_rpn_cls: 0.01596 loss_rpn_loc: 0.07397 time: 0.5098  
last_time: 0.5219 data_time: 0.0074 last_data_time: 0.0057 lr:  
0.00025 max_mem: 2458M  
[07/21 23:48:44 d2.utils.events]: eta: 0:06:04 iter: 9299  
total_loss: 0.2891 loss_cls: 0.03811 loss_box_reg: 0.1636
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loss_rpn_cls: 0.01498 loss_rpn_loc: 0.07524 time: 0.5098
last_time: 0.5219 data_time: 0.0129 last_data_time: 0.0072 lr:
0.00025 max_mem: 2458M
[07/21 23:48:55 d2.utils.events]: eta: 0:05:54 iter: 9319
total_loss: 0.3059 loss_cls: 0.04011 loss_box_reg: 0.1671
loss_rpn_cls: 0.01633 loss_rpn_loc: 0.08186 time: 0.5098
last_time: 0.5261 data_time: 0.0124 last_data_time: 0.0066 lr:
0.00025 max_mem: 2458M
[07/21 23:49:05 d2.utils.events]: eta: 0:05:44 iter: 9339
total_loss: 0.3008 loss_cls: 0.04229 loss_box_reg: 0.1734
loss_rpn_cls: 0.0124 loss_rpn_loc: 0.07308 time: 0.5099
last_time: 0.5309 data_time: 0.0146 last_data_time: 0.0209 lr:
0.00025 max_mem: 2458M
[07/21 23:49:15 d2.utils.events]: eta: 0:05:33 iter: 9359
total_loss: 0.3124 loss_cls: 0.04074 loss_box_reg: 0.1674
loss_rpn_cls: 0.01482 loss_rpn_loc: 0.08064 time: 0.5099
last_time: 0.5454 data_time: 0.0107 last_data_time: 0.0270 lr:
0.00025 max_mem: 2458M
[07/21 23:49:26 d2.utils.events]: eta: 0:05:23 iter: 9379
total_loss: 0.3123 loss_cls: 0.03721 loss_box_reg: 0.1693
loss_rpn_cls: 0.01858 loss_rpn_loc: 0.07128 time: 0.5099
last_time: 0.5429 data_time: 0.0146 last_data_time: 0.0132 lr:
0.00025 max_mem: 2458M
[07/21 23:49:36 d2.utils.events]: eta: 0:05:12 iter: 9399
total_loss: 0.3139 loss_cls: 0.04142 loss_box_reg: 0.174
loss_rpn_cls: 0.01396 loss_rpn_loc: 0.08233 time: 0.5099
last_time: 0.5262 data_time: 0.0130 last_data_time: 0.0153 lr:
0.00025 max_mem: 2458M
[07/21 23:49:47 d2.utils.events]: eta: 0:05:02 iter: 9419
total_loss: 0.2853 loss_cls: 0.04199 loss_box_reg: 0.1524
loss_rpn_cls: 0.01459 loss_rpn_loc: 0.07426 time: 0.5100
last_time: 0.5335 data_time: 0.0085 last_data_time: 0.0169 lr:
0.00025 max_mem: 2458M
[07/21 23:49:57 d2.utils.events]: eta: 0:04:52 iter: 9439
total_loss: 0.2785 loss_cls: 0.03926 loss_box_reg: 0.1456
loss_rpn_cls: 0.01436 loss_rpn_loc: 0.07004 time: 0.5100
last_time: 0.5205 data_time: 0.0114 last_data_time: 0.0056 lr:
0.00025 max_mem: 2458M
[07/21 23:50:07 d2.utils.events]: eta: 0:04:41 iter: 9459
total_loss: 0.295 loss_cls: 0.04108 loss_box_reg: 0.1611
loss_rpn_cls: 0.01304 loss_rpn_loc: 0.08252 time: 0.5099
last_time: 0.4722 data_time: 0.0107 last_data_time: 0.0071 lr:
0.00025 max_mem: 2458M
[07/21 23:50:17 d2.utils.events]: eta: 0:04:31 iter: 9479
total_loss: 0.2724 loss_cls: 0.04054 loss_box_reg: 0.1502
loss_rpn_cls: 0.01282 loss_rpn_loc: 0.07217 time: 0.5099
last_time: 0.5468 data_time: 0.0107 last_data_time: 0.0294 lr:
0.00025 max_mem: 2458M
[07/21 23:50:27 d2.utils.events]: eta: 0:04:20 iter: 9499
```

```
total_loss: 0.2756 loss_cls: 0.039 loss_box_reg: 0.1565
loss_rpn_cls: 0.007196 loss_rpn_loc: 0.07749 time: 0.5099
last_time: 0.5142 data_time: 0.0095 last_data_time: 0.0066 lr:
0.00025 max_mem: 2458M
[07/21 23:50:38 d2.utils.events]: eta: 0:04:10 iter: 9519
total_loss: 0.289 loss_cls: 0.04071 loss_box_reg: 0.1523
loss_rpn_cls: 0.0129 loss_rpn_loc: 0.0813 time: 0.5100 last_time:
0.5182 data_time: 0.0168 last_data_time: 0.0071 lr: 0.00025
max_mem: 2458M
[07/21 23:50:48 d2.utils.events]: eta: 0:03:59 iter: 9539
total_loss: 0.3141 loss_cls: 0.04017 loss_box_reg: 0.1832
loss_rpn_cls: 0.01151 loss_rpn_loc: 0.08342 time: 0.5100
last_time: 0.4480 data_time: 0.0136 last_data_time: 0.0064 lr:
0.00025 max_mem: 2458M
[07/21 23:50:59 d2.utils.events]: eta: 0:03:49 iter: 9559
total_loss: 0.2926 loss_cls: 0.03909 loss_box_reg: 0.165
loss_rpn_cls: 0.01069 loss_rpn_loc: 0.06977 time: 0.5100
last_time: 0.5533 data_time: 0.0084 last_data_time: 0.0290 lr:
0.00025 max_mem: 2458M
[07/21 23:51:09 d2.utils.events]: eta: 0:03:39 iter: 9579
total_loss: 0.2687 loss_cls: 0.03774 loss_box_reg: 0.1479
loss_rpn_cls: 0.01346 loss_rpn_loc: 0.07695 time: 0.5100
last_time: 0.5175 data_time: 0.0099 last_data_time: 0.0056 lr:
0.00025 max_mem: 2458M
[07/21 23:51:19 d2.utils.events]: eta: 0:03:28 iter: 9599
total_loss: 0.2853 loss_cls: 0.03857 loss_box_reg: 0.1529
loss_rpn_cls: 0.01339 loss_rpn_loc: 0.06934 time: 0.5100
last_time: 0.4549 data_time: 0.0147 last_data_time: 0.0065 lr:
0.00025 max_mem: 2458M
[07/21 23:51:30 d2.utils.events]: eta: 0:03:18 iter: 9619
total_loss: 0.26 loss_cls: 0.03593 loss_box_reg: 0.1461
loss_rpn_cls: 0.01471 loss_rpn_loc: 0.07124 time: 0.5100
last_time: 0.5293 data_time: 0.0070 last_data_time: 0.0060 lr:
0.00025 max_mem: 2458M
[07/21 23:51:40 d2.utils.events]: eta: 0:03:07 iter: 9639
total_loss: 0.2752 loss_cls: 0.04205 loss_box_reg: 0.1461
loss_rpn_cls: 0.01279 loss_rpn_loc: 0.07211 time: 0.5100
last_time: 0.5276 data_time: 0.0099 last_data_time: 0.0065 lr:
0.00025 max_mem: 2458M
[07/21 23:51:50 d2.utils.events]: eta: 0:02:57 iter: 9659
total_loss: 0.2567 loss_cls: 0.03886 loss_box_reg: 0.1465
loss_rpn_cls: 0.008313 loss_rpn_loc: 0.06897 time: 0.5101
last_time: 0.5243 data_time: 0.0118 last_data_time: 0.0079 lr:
0.00025 max_mem: 2458M
[07/21 23:52:01 d2.utils.events]: eta: 0:02:46 iter: 9679
total_loss: 0.2799 loss_cls: 0.0409 loss_box_reg: 0.153
loss_rpn_cls: 0.008139 loss_rpn_loc: 0.07271 time: 0.5101
last_time: 0.5417 data_time: 0.0120 last_data_time: 0.0268 lr:
0.00025 max_mem: 2458M
```

```
[07/21 23:52:11 d2.utils.events]: eta: 0:02:36 iter: 9699
total_loss: 0.2736 loss_cls: 0.03546 loss_box_reg: 0.1559
loss_rpn_cls: 0.009882 loss_rpn_loc: 0.06699 time: 0.5101
last_time: 0.5234 data_time: 0.0083 last_data_time: 0.0060 lr:
0.00025 max_mem: 2458M
[07/21 23:52:21 d2.utils.events]: eta: 0:02:26 iter: 9719
total_loss: 0.2689 loss_cls: 0.03929 loss_box_reg: 0.1432
loss_rpn_cls: 0.01125 loss_rpn_loc: 0.07745 time: 0.5101
last_time: 0.4200 data_time: 0.0138 last_data_time: 0.0065 lr:
0.00025 max_mem: 2458M
[07/21 23:52:32 d2.utils.events]: eta: 0:02:15 iter: 9739
total_loss: 0.2994 loss_cls: 0.03533 loss_box_reg: 0.1624
loss_rpn_cls: 0.01245 loss_rpn_loc: 0.06944 time: 0.5101
last_time: 0.5204 data_time: 0.0148 last_data_time: 0.0055 lr:
0.00025 max_mem: 2458M
[07/21 23:52:42 d2.utils.events]: eta: 0:02:05 iter: 9759
total_loss: 0.3091 loss_cls: 0.0429 loss_box_reg: 0.1696
loss_rpn_cls: 0.008413 loss_rpn_loc: 0.07751 time: 0.5101
last_time: 0.4928 data_time: 0.0131 last_data_time: 0.0284 lr:
0.00025 max_mem: 2458M
[07/21 23:52:52 d2.utils.events]: eta: 0:01:54 iter: 9779
total_loss: 0.2521 loss_cls: 0.03725 loss_box_reg: 0.1359
loss_rpn_cls: 0.01179 loss_rpn_loc: 0.07224 time: 0.5101
last_time: 0.5166 data_time: 0.0081 last_data_time: 0.0061 lr:
0.00025 max_mem: 2458M
[07/21 23:53:02 d2.utils.events]: eta: 0:01:44 iter: 9799
total_loss: 0.2671 loss_cls: 0.03627 loss_box_reg: 0.1408
loss_rpn_cls: 0.01401 loss_rpn_loc: 0.06431 time: 0.5101
last_time: 0.5338 data_time: 0.0129 last_data_time: 0.0066 lr:
0.00025 max_mem: 2458M
[07/21 23:53:13 d2.utils.events]: eta: 0:01:33 iter: 9819
total_loss: 0.2603 loss_cls: 0.04103 loss_box_reg: 0.1387
loss_rpn_cls: 0.01096 loss_rpn_loc: 0.06974 time: 0.5101
last_time: 0.5407 data_time: 0.0156 last_data_time: 0.0271 lr:
0.00025 max_mem: 2458M
[07/21 23:53:23 d2.utils.events]: eta: 0:01:23 iter: 9839
total_loss: 0.2758 loss_cls: 0.04047 loss_box_reg: 0.1396
loss_rpn_cls: 0.01722 loss_rpn_loc: 0.0783 time: 0.5101
last_time: 0.4818 data_time: 0.0094 last_data_time: 0.0063 lr:
0.00025 max_mem: 2458M
[07/21 23:53:33 d2.utils.events]: eta: 0:01:13 iter: 9859
total_loss: 0.2535 loss_cls: 0.03692 loss_box_reg: 0.1433
loss_rpn_cls: 0.007238 loss_rpn_loc: 0.07069 time: 0.5101
last_time: 0.4480 data_time: 0.0144 last_data_time: 0.0071 lr:
0.00025 max_mem: 2458M
[07/21 23:53:44 d2.utils.events]: eta: 0:01:02 iter: 9879
total_loss: 0.2824 loss_cls: 0.04153 loss_box_reg: 0.1607
loss_rpn_cls: 0.01389 loss_rpn_loc: 0.07516 time: 0.5102
last_time: 0.5346 data_time: 0.0134 last_data_time: 0.0177 lr:
```

```
0.00025 max_mem: 2458M
[07/21 23:53:54 d2.utils.events]: eta: 0:00:52 iter: 9899
total_loss: 0.2275 loss_cls: 0.0336 loss_box_reg: 0.1235
loss_rpn_cls: 0.008548 loss_rpn_loc: 0.06663 time: 0.5102
last_time: 0.5474 data_time: 0.0112 last_data_time: 0.0198 lr:
0.00025 max_mem: 2458M
[07/21 23:54:04 d2.utils.events]: eta: 0:00:41 iter: 9919
total_loss: 0.26 loss_cls: 0.03809 loss_box_reg: 0.1397
loss_rpn_cls: 0.01038 loss_rpn_loc: 0.07088 time: 0.5102
last_time: 0.5273 data_time: 0.0115 last_data_time: 0.0100 lr:
0.00025 max_mem: 2458M
[07/21 23:54:15 d2.utils.events]: eta: 0:00:31 iter: 9939
total_loss: 0.2469 loss_cls: 0.03253 loss_box_reg: 0.1355
loss_rpn_cls: 0.01617 loss_rpn_loc: 0.06573 time: 0.5102
last_time: 0.5246 data_time: 0.0153 last_data_time: 0.0083 lr:
0.00025 max_mem: 2458M
[07/21 23:54:25 d2.utils.events]: eta: 0:00:20 iter: 9959
total_loss: 0.267 loss_cls: 0.03984 loss_box_reg: 0.1435
loss_rpn_cls: 0.0128 loss_rpn_loc: 0.06708 time: 0.5102
last_time: 0.5308 data_time: 0.0110 last_data_time: 0.0094 lr:
0.00025 max_mem: 2458M
[07/21 23:54:35 d2.utils.events]: eta: 0:00:10 iter: 9979
total_loss: 0.2556 loss_cls: 0.03511 loss_box_reg: 0.138
loss_rpn_cls: 0.01115 loss_rpn_loc: 0.0687 time: 0.5102
last_time: 0.5271 data_time: 0.0077 last_data_time: 0.0078 lr:
0.00025 max_mem: 2458M
[07/21 23:54:49 d2.utils.events]: eta: 0:00:00 iter: 9999
total_loss: 0.2467 loss_cls: 0.0358 loss_box_reg: 0.1336
loss_rpn_cls: 0.01262 loss_rpn_loc: 0.06332 time: 0.5102
last_time: 0.5296 data_time: 0.0129 last_data_time: 0.0059 lr:
0.00025 max_mem: 2458M
[07/21 23:54:49 d2.engine.hooks]: Overall training speed: 9998
iterations in 1:25:01 (0.5102 s / it)
[07/21 23:54:49 d2.engine.hooks]: Total training time: 1:25:16
(0:00:15 on hooks)

# Look at training curves in tensorboard:
%load_ext tensorboard
%tensorboard --logdir output

<IPython.core.display.Javascript object>

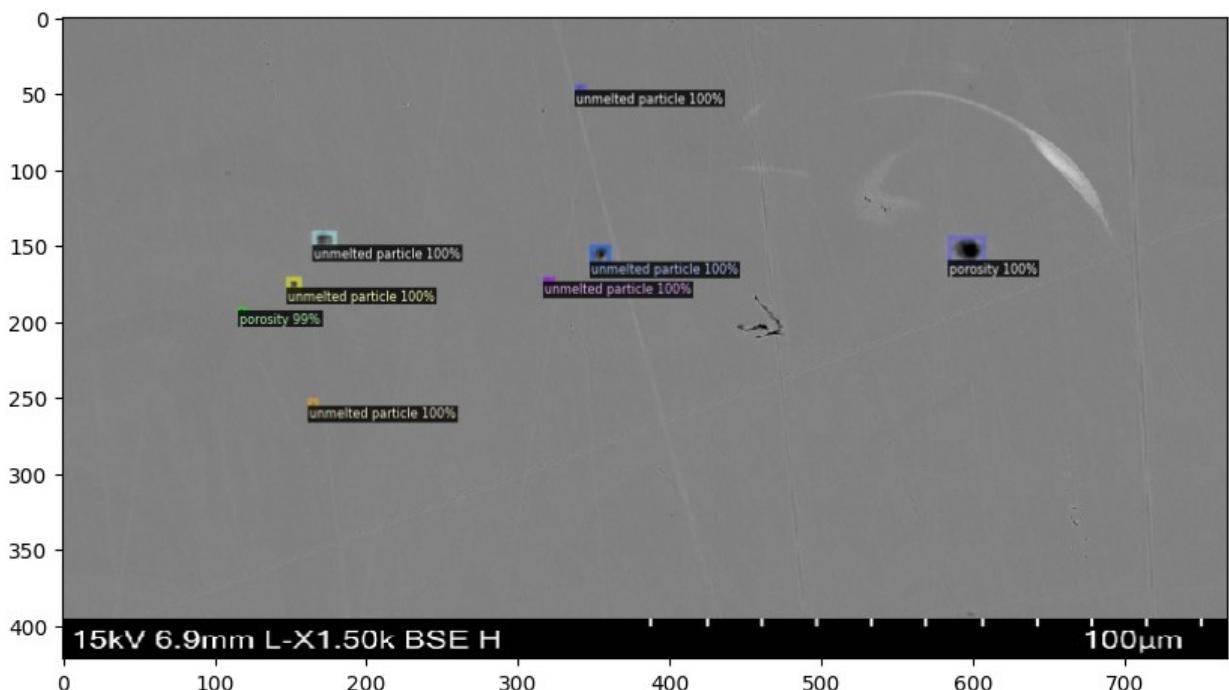
cfg.MODEL.WEIGHTS = os.path.join(cfg.OUTPUT_DIR, "model_final.pth")
cfg.MODEL.ROI_HEADS.SCORE_THRESH_TEST = 0.5
cfg.DATASETS.TEST = ("p_test", )
predictor = DefaultPredictor(cfg)

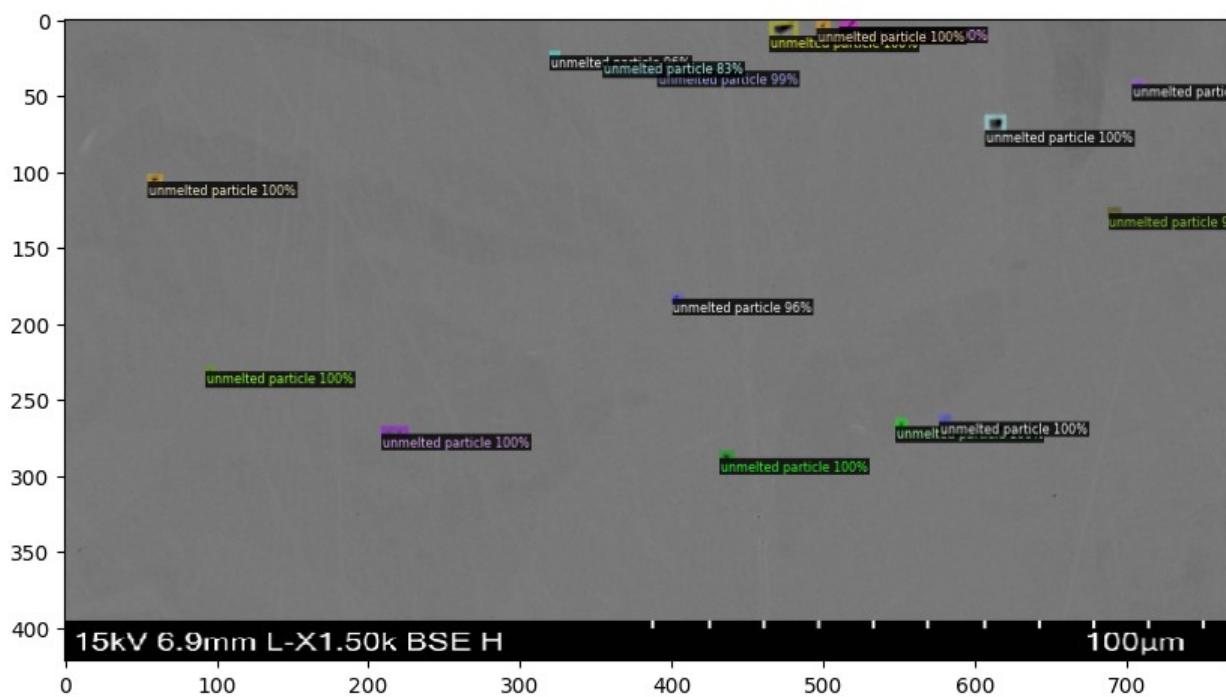
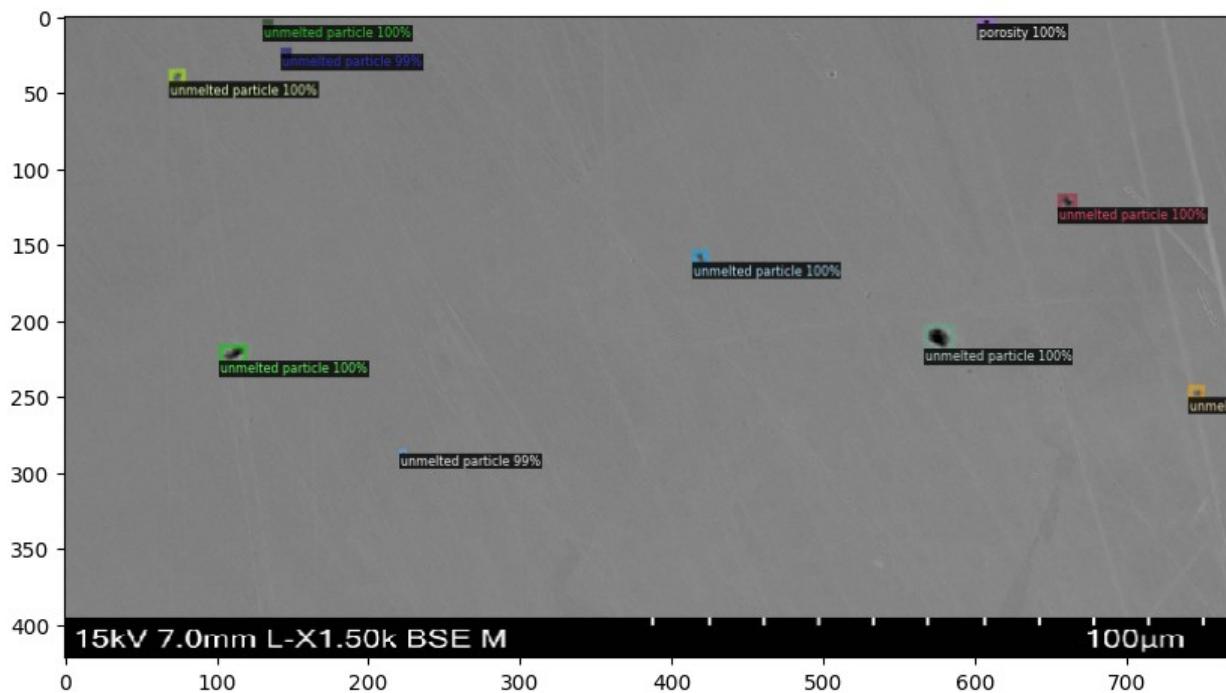
[07/21 23:55:17 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from ./output/model_final.pth ...
```

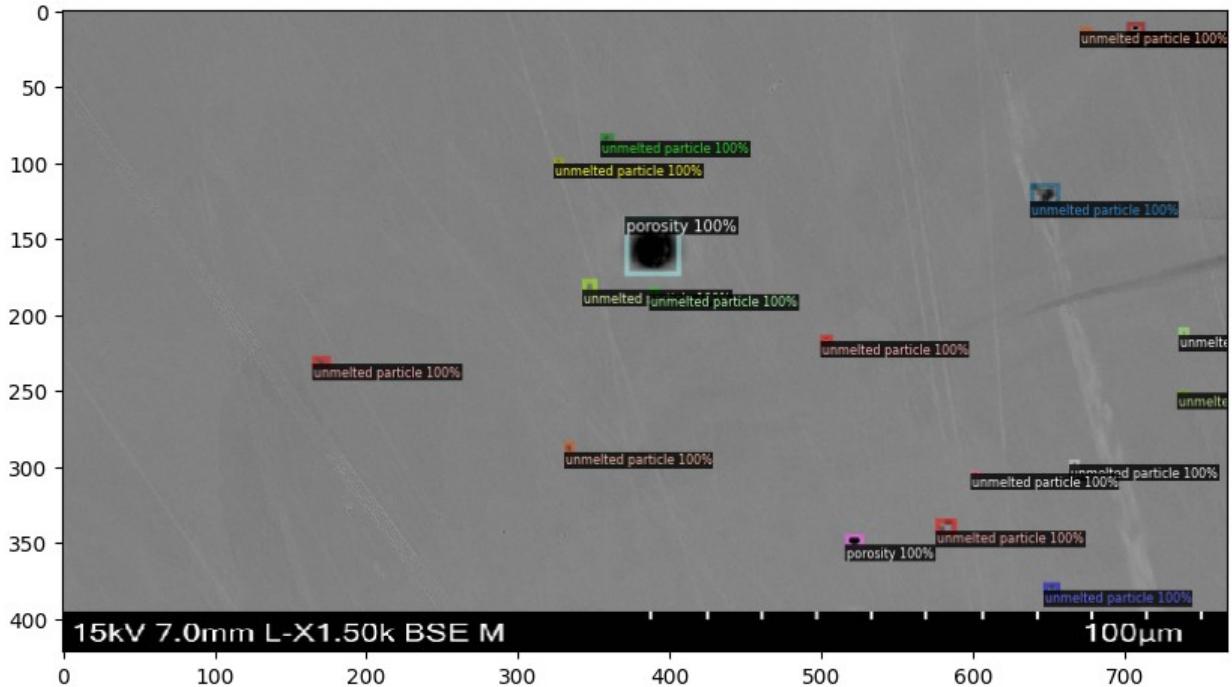
```

from detectron2.utils.visualizer import ColorMode
dataset_dicts = get_r_dicts('/content/drive/MyDrive/Mahabub/train')
for d in random.sample(dataset_dicts, 4):
    im = cv2.imread(d["file_name"])
    outputs = predictor(im)
    v = Visualizer(im[:, :, ::-1],
                   metadata=r_metadata,
                   scale=0.8,
                   instance_mode=ColorMode.IMAGE_BW # remove the
    colors of unsegmented pixels
    )
    v = v.draw_instance_predictions(outputs["instances"].to("cpu"))
    plt.figure(figsize = (10, 10))
    plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1],
cv2.COLOR_BGR2RGB))
    plt.show()

```



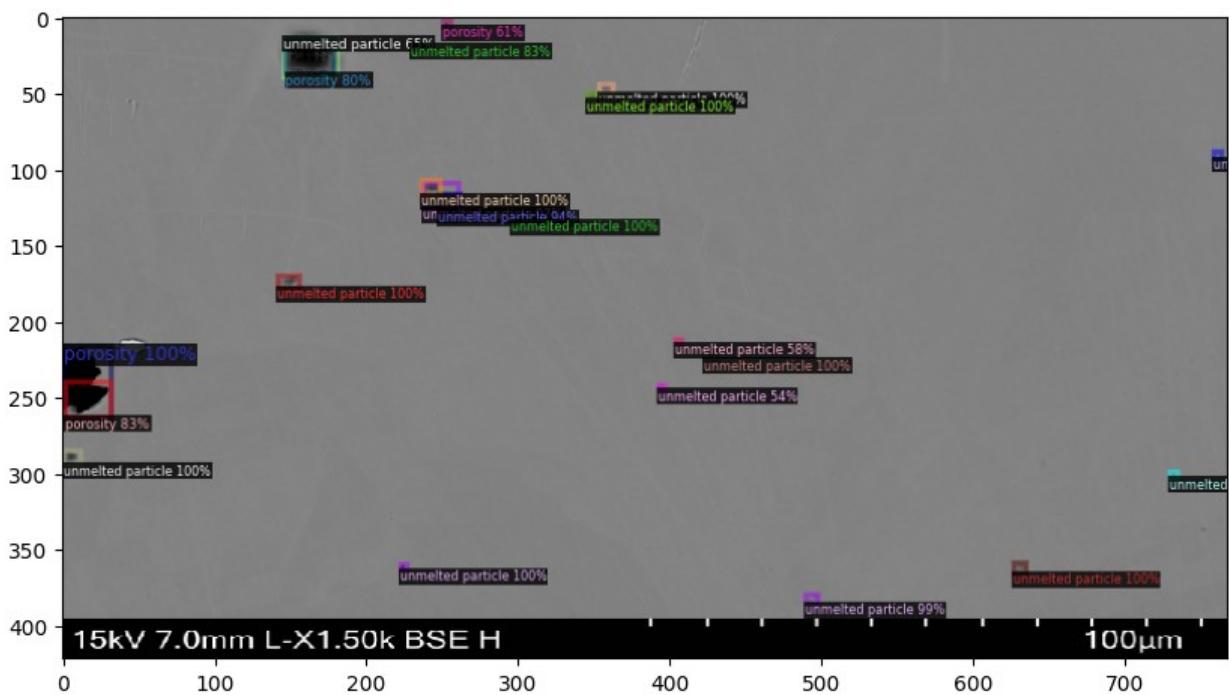
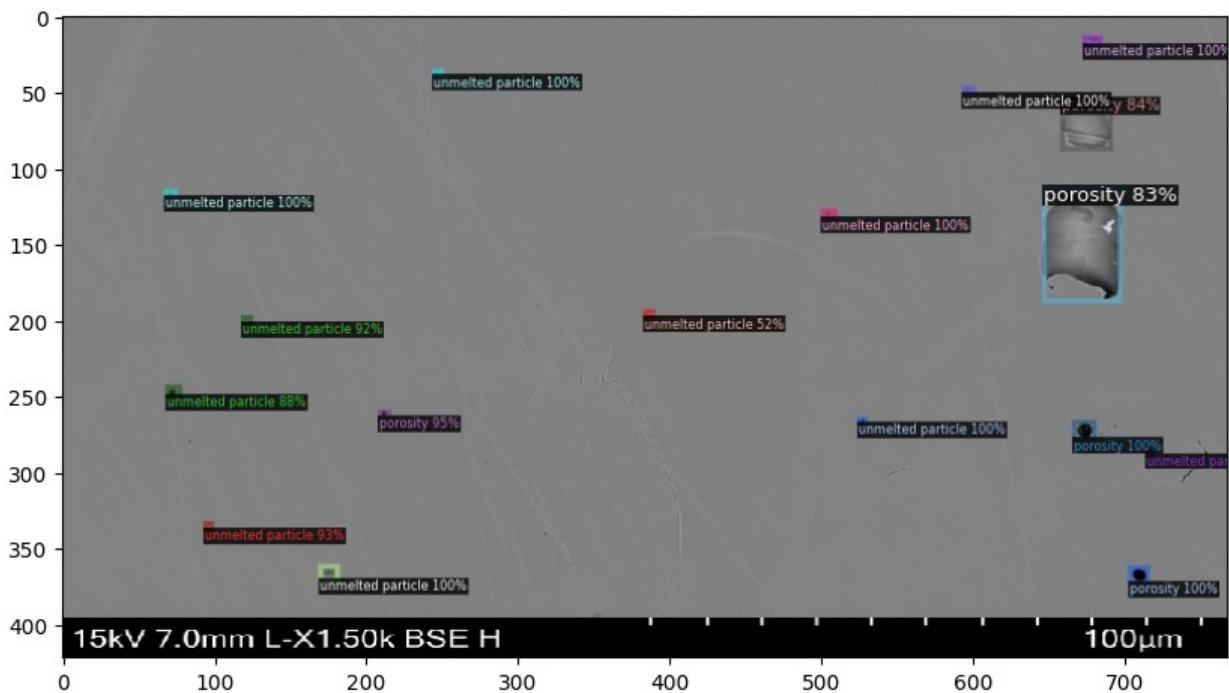


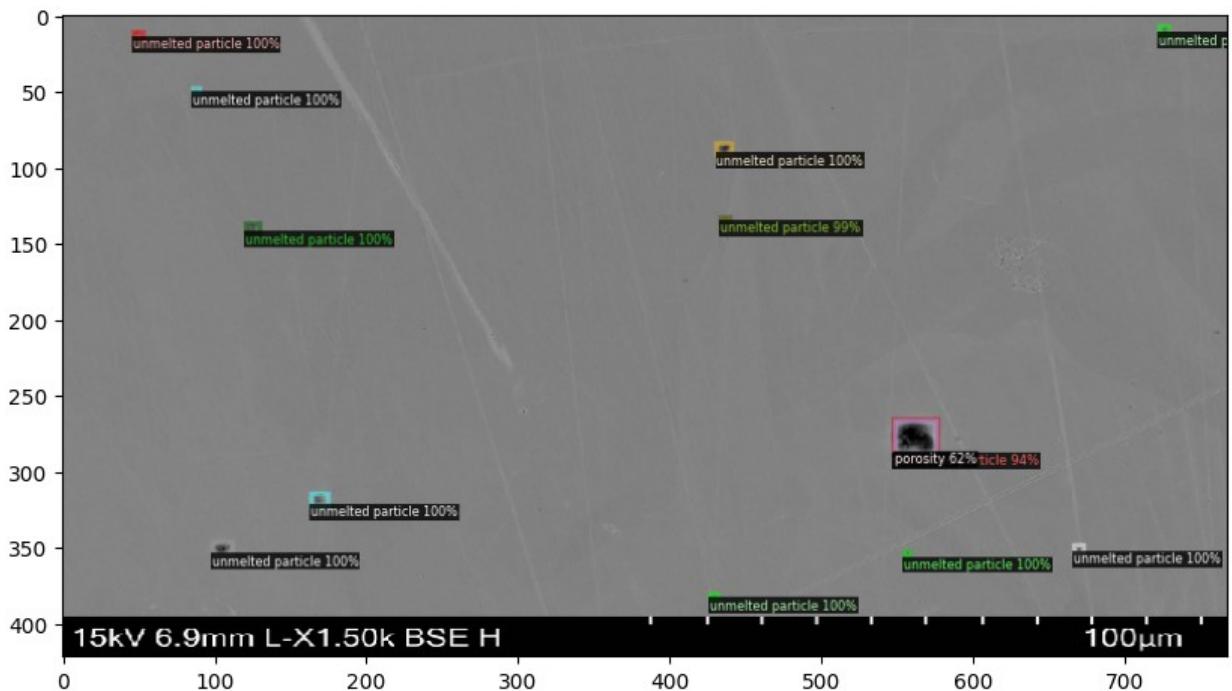
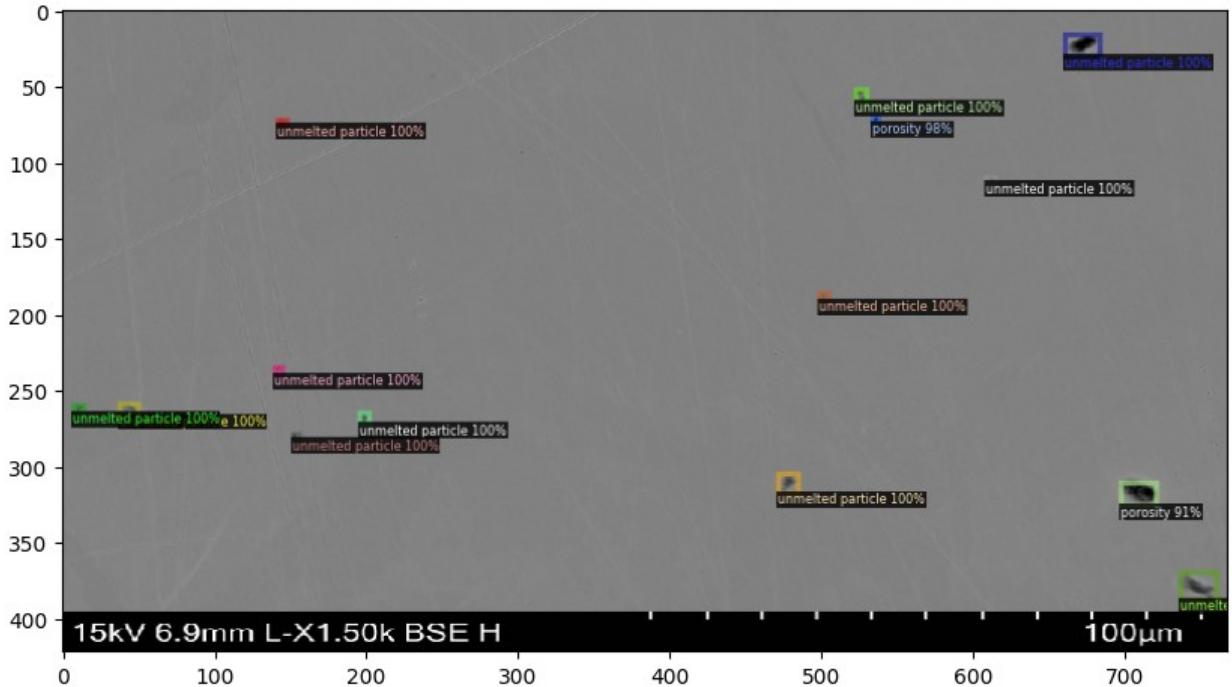


```

from detectron2.utils.visualizer import ColorMode
dataset_dicts = get_r_dicts('/content/drive/MyDrive/Mahabub/test')
for d in random.sample(dataset_dicts, 4):
    im = cv2.imread(d["file_name"])
    outputs = predictor(im)
    v = Visualizer(im[:, :, ::-1],
                   metadata=r_metadata,
                   scale=0.8,
                   instance_mode=ColorMode.IMAGE_BW # remove the
    colors of unsegmented pixels
    )
    v = v.draw_instance_predictions(outputs["instances"].to("cpu"))
    plt.figure(figsize = (10, 10))
    plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1],
    cv2.COLOR_BGR2RGB))
    plt.show()

```





```

from detectron2.evaluation import COCOEvaluator, inference_on_dataset
from detectron2.data import build_detection_test_loader
evaluator = COCOEvaluator("p_train", ['bbox'], False,
output_dir="../output/")
val_loader = build_detection_test_loader(cfg, "p_train")
print(inference_on_dataset(predictor.model, val_loader, evaluator))

```

```
[07/21 23:55:43 d2.evaluation.coco_evaluation]: Trying to convert
'p_train' to COCO format ...
[07/21 23:55:43 d2.data.datasets.coco]: Converting annotations of
dataset 'p_train' to COCO format ...
[07/21 23:55:43 d2.data.datasets.coco]: Converting dataset dicts into
COCO format
[07/21 23:55:43 d2.data.datasets.coco]: Conversion finished, #images:
42, #annotations: 715
[07/21 23:55:43 d2.data.datasets.coco]: Caching COCO format
annotations at './output/p_train_coco_format.json' ...
[07/21 23:55:43 d2.data.dataset_mapper]: [DatasetMapper] Augmentations
used in inference: [ResizeShortestEdge(short_edge_length=(800, 800),
max_size=1333, sample_style='choice')]
[07/21 23:55:43 d2.data.common]: Serializing the dataset using: <class
'detectron2.data.common._TorchSerializedList'>
[07/21 23:55:43 d2.data.common]: Serializing 42 elements to byte
tensors and concatenating them all ...
[07/21 23:55:43 d2.data.common]: Serialized dataset takes 0.16 MiB
[07/21 23:55:43 d2.evaluation.evaluator]: Start inference on 42
batches
[07/21 23:55:45 d2.evaluation.evaluator]: Inference done 11/42.
Dataloading: 0.0024 s/iter. Inference: 0.1189 s/iter. Eval: 0.0004
s/iter. Total: 0.1217 s/iter. ETA=0:00:03
[07/21 23:55:49 d2.evaluation.evaluator]: Total inference time:
0:00:04.508754 (0.121858 s / iter per device, on 1 devices)
[07/21 23:55:49 d2.evaluation.evaluator]: Total inference pure compute
time: 0:00:04 (0.117381 s / iter per device, on 1 devices)
[07/21 23:55:49 d2.evaluation.coco_evaluation]: Preparing results for
COCO format ...
[07/21 23:55:49 d2.evaluation.coco_evaluation]: Saving results to
./output/coco_instances_results.json
[07/21 23:55:49 d2.evaluation.coco_evaluation]: Evaluating predictions
with unofficial COCO API...
Loading and preparing results...
DONE (t=0.00s)
creating index...
index created!
[07/21 23:55:49 d2.evaluation.fast_eval_api]: Evaluate annotation type
*bbox*
[07/21 23:55:49 d2.evaluation.fast_eval_api]: COCOeval_opt.evaluate()
finished in 0.02 seconds.
[07/21 23:55:49 d2.evaluation.fast_eval_api]: Accumulating evaluation
results...
[07/21 23:55:49 d2.evaluation.fast_eval_api]:
COCOeval_opt.accumulate() finished in 0.01 seconds.
  Average Precision (AP) @[ IoU=0.50:0.95 | area= all |
maxDets=100 ] = 0.734
  Average Precision (AP) @[ IoU=0.50 | area= all |
maxDets=100 ] = 0.838
  Average Precision (AP) @[ IoU=0.75 | area= all |
```

```

maxDets=100 ] = 0.829
Average Precision (AP) @[ IoU=0.50:0.95 | area= small |
maxDets=100 ] = 0.715
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium |
maxDets=100 ] = 0.953
Average Precision (AP) @[ IoU=0.50:0.95 | area= large |
maxDets=100 ] = -1.000
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=
1 ] = 0.312
Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=
10 ] = 0.659
Average Recall (AR) @[ IoU=0.50:0.95 | area= all |
maxDets=100 ] = 0.760
Average Recall (AR) @[ IoU=0.50:0.95 | area= small |
maxDets=100 ] = 0.740
Average Recall (AR) @[ IoU=0.50:0.95 | area=medium |
maxDets=100 ] = 0.958
Average Recall (AR) @[ IoU=0.50:0.95 | area= large |
maxDets=100 ] = -1.000
[07/21 23:55:49 d2.evaluation.coco_evaluation]: Evaluation results for
bbox:
| AP | AP50 | AP75 | APs | APm | APl |
|-----|-----|-----|-----|-----|-----|
| 73.441 | 83.823 | 82.899 | 71.521 | 95.340 | nan |
[07/21 23:55:49 d2.evaluation.coco_evaluation]: Some metrics cannot be
computed and is shown as NaN.
[07/21 23:55:49 d2.evaluation.coco_evaluation]: Per-category bbox AP:
| category | AP | category | AP | category | AP |
|-----|-----|-----|-----|-----|-----|
| unmelted particle | 83.159 | porosity | 87.758 | microcrack | 49.406 |
OrderedDict([('bbox', {'AP': 73.44103601416589, 'AP50':
83.82312239464834, 'AP75': 82.89925716317164, 'APs':
71.52051142533203, 'APm': 95.33993399339936, 'APl': nan, 'AP-unmelted
particle': 83.15916125860555, 'AP-porosity': 87.75800618983271, 'AP-
microcrack': 49.4059405940594}))]

import cv2
import numpy as np
import json
from detectron2.config import get_cfg
from detectron2.engine import DefaultPredictor, DefaultTrainer
from detectron2.utils.visualizer import Visualizer
from detectron2.data import MetadataCatalog
from google.colab.patches import cv2_imshow

# Conversion factor: 1 pixel = 0.1 cm (hypothetical value)
conversion_factor = 0.1 # Adjust this value based on your specific

```

```

conversion factor

# Load JSON annotations
annotations_path =
'/content/drive/MyDrive/Mahabub/train/rsz_slm_square_finalx15k_0014.json'
with open(annotations_path) as f:
    annotations_data = json.load(f)

# Extract annotations
annotations = annotations_data['shapes']

# Load corresponding image
image_path =
'/content/drive/MyDrive/Mahabub/train/rsz_slm_square_finalx15k_0014.jpg'
image = cv2.imread(image_path)

# Create a black mask image for the background
mask = np.zeros_like(image[:, :, 0], dtype=np.uint8)

# Initialize variables for area calculations
cracks = []
unmelted_particle_area = 0
microcrack_area = 0
porosity_area = 0

# Iterate through annotations and calculate size, shape, volume, and
area for each crack
for annotation in annotations:
    # Extract label and points
    label = annotation['label']
    points = annotation['points']

    # Extract bounding box coordinates
    xmin = int(min(points, key=lambda x: x[0])[0])
    ymin = int(min(points, key=lambda x: x[1])[1])
    xmax = int(max(points, key=lambda x: x[0])[0])
    ymax = int(max(points, key=lambda x: x[1])[1])

    # Extract segmentation mask
    object_mask = np.zeros_like(image[:, :, 0], dtype=np.uint8)
    cv2.fillPoly(object_mask, np.array([points]), dtype=np.int32), 255)

    # Update the main mask based on the label
    if label == 'porosity':
        mask = cv2.bitwise_or(mask, object_mask)
        color = (0, 255, 0) # Green for porosity
        porosity_area += np.sum(object_mask)
    elif label == 'microcrack':

```

```

mask = cv2.bitwise_or(mask, object_mask)
color = (0, 0, 255) # Red for microcrack
microcrack_area += np.sum(object_mask)
elif label == 'unmelted particle':
    mask = cv2.bitwise_or(mask, object_mask)
    color = (255, 0, 0) # Blue for unmelted particle
    unmelted_particle_area += np.sum(object_mask)
else:
    color = (255, 255, 255) # White for other objects

# Draw bounding box and label on the image
cv2.rectangle(image, (xmin, ymin), (xmax, ymax), color, 2)
cv2.putText(image, label, (xmin, ymin - 10),
cv2.FONT_HERSHEY_SIMPLEX, 0.9, color, 2)

# Calculate the size of the crack (length, width, depth) in centimeters
length_cm = (xmax - xmin) * conversion_factor
width_cm = (ymax - ymin) * conversion_factor
depth_cm = 0.1 # Assuming the depth is 0.1 cm (hypothetical value)

# Calculate the volume of the crack in cubic centimeters (cc)
volume_cc = length_cm * width_cm * depth_cm

# Create a dictionary to store crack information
crack = {
    'label': label,
    'length_cm': length_cm,
    'width_cm': width_cm,
    'depth_cm': depth_cm,
    'volume_cc': volume_cc,
    'area': np.sum(object_mask)
}

# Add the crack to the list of cracks
cracks.append(crack)

# Apply the mask to the original image
masked_image = cv2.bitwise_and(image, image, mask=mask)

# Create a Detectron2 configuration for prediction
cfg = get_cfg()
cfg.merge_from_file(model_zoo.get_config_file("COCO-Detection/faster_rcnn_R_50_FPN_1x.yaml"))
cfg.MODEL.ROI_HEADS.SCORE_THRESH_TEST = 0.5
cfg.MODEL.WEIGHTS =
model_zoo.get_checkpoint_url("COCO-Detection/faster_rcnn_R_50_FPN_1x.yaml")
predictor = DefaultPredictor(cfg)

```

```

# Run the Faster R-CNN model on the image
outputs = predictor(image)

# Visualize the predictions
v = Visualizer(image[:, :, ::-1],
MetadataCatalog.get(cfg.DATASETS.TRAIN[0]), scale=1.2)
out = v.draw_instance_predictions(outputs["instances"].to("cpu"))

# Get the annotated image
annotated_image = out.get_image()[:, :, ::-1]

# Calculate average areas
num_unmelted_particles = sum(1 for annotation in annotations if
annotation['label'] == 'unmelted particle')
num_microcracks = sum(1 for annotation in annotations if
annotation['label'] == 'microcrack')
num_porosities = sum(1 for annotation in annotations if
annotation['label'] == 'porosity')

average_unmelted_particle_area = (unmelted_particle_area /
num_unmelted_particles) * (conversion_factor ** 2) if
num_unmelted_particles > 0 else 0
average_microcrack_area = (microcrack_area / num_microcracks) *
(conversion_factor ** 2) if num_microcracks > 0 else 0
average_porosity_area = (porosity_area / num_porosities) *
(conversion_factor ** 2) if num_porosities > 0 else 0

# Print crack information
for i, crack in enumerate(cracks):
    print(f"Crack {i+1}:")
    print(f"Label: {crack['label']}")
    print(f"Length: {crack['length_cm']:.2f} cm")
    print(f"Width: {crack['width_cm']:.2f} cm")
    print(f"Depth: {crack['depth_cm']:.2f} cm")
    print(f"Volume: {crack['volume_cc']:.2f} cc")
    print(f"Area: {crack['area']} pixels^2\n")

# Print average area calculations
print(f"Average area of microcracks: {average_microcrack_area:.2f} cm^2")
print(f"Average area of porosity: {average_porosity_area:.2f} cm^2")
print(f"Average area of unmelted particles: {average_unmelted_particle_area:.2f} cm^2")

# Display the images
cv2_imshow(image)
cv2_imshow(masked_image)
cv2_imshow(annotated_image)

```

```
[07/21 23:55:58 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-Detection/faster\_rcnn\_R\_50\_FPN\_1x/137257794/model\_final\_b275ba.pkl ...  
Crack 1:  
Label: microcrack  
Length: 8.10 cm  
Width: 12.00 cm  
Depth: 0.10 cm  
Volume: 9.72 cc  
Area: 514845 pixels^2  
  
Crack 2:  
Label: unmelted particle  
Length: 1.60 cm  
Width: 1.00 cm  
Depth: 0.10 cm  
Volume: 0.16 cc  
Area: 33660 pixels^2  
  
Crack 3:  
Label: unmelted particle  
Length: 3.00 cm  
Width: 2.10 cm  
Depth: 0.10 cm  
Volume: 0.63 cc  
Area: 118065 pixels^2  
  
Crack 4:  
Label: unmelted particle  
Length: 0.60 cm  
Width: 0.50 cm  
Depth: 0.10 cm  
Volume: 0.03 cc  
Area: 9180 pixels^2  
  
Crack 5:  
Label: unmelted particle  
Length: 2.20 cm  
Width: 1.70 cm  
Depth: 0.10 cm  
Volume: 0.37 cc  
Area: 61455 pixels^2  
  
Crack 6:  
Label: unmelted particle  
Length: 0.90 cm  
Width: 0.90 cm  
Depth: 0.10 cm  
Volume: 0.08 cc
```

Area: 16575 pixels²

Crack 7:

Label: unmelted particle
Length: 2.50 cm
Width: 2.50 cm
Depth: 0.10 cm
Volume: 0.62 cc
Area: 99195 pixels²

Crack 8:

Label: porosity
Length: 1.20 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.11 cc
Area: 25755 pixels²

Crack 9:

Label: porosity
Length: 0.70 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11985 pixels²

Crack 10:

Label: unmelted particle
Length: 0.80 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14280 pixels²

Crack 11:

Label: unmelted particle
Length: 0.90 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 10710 pixels²

Crack 12:

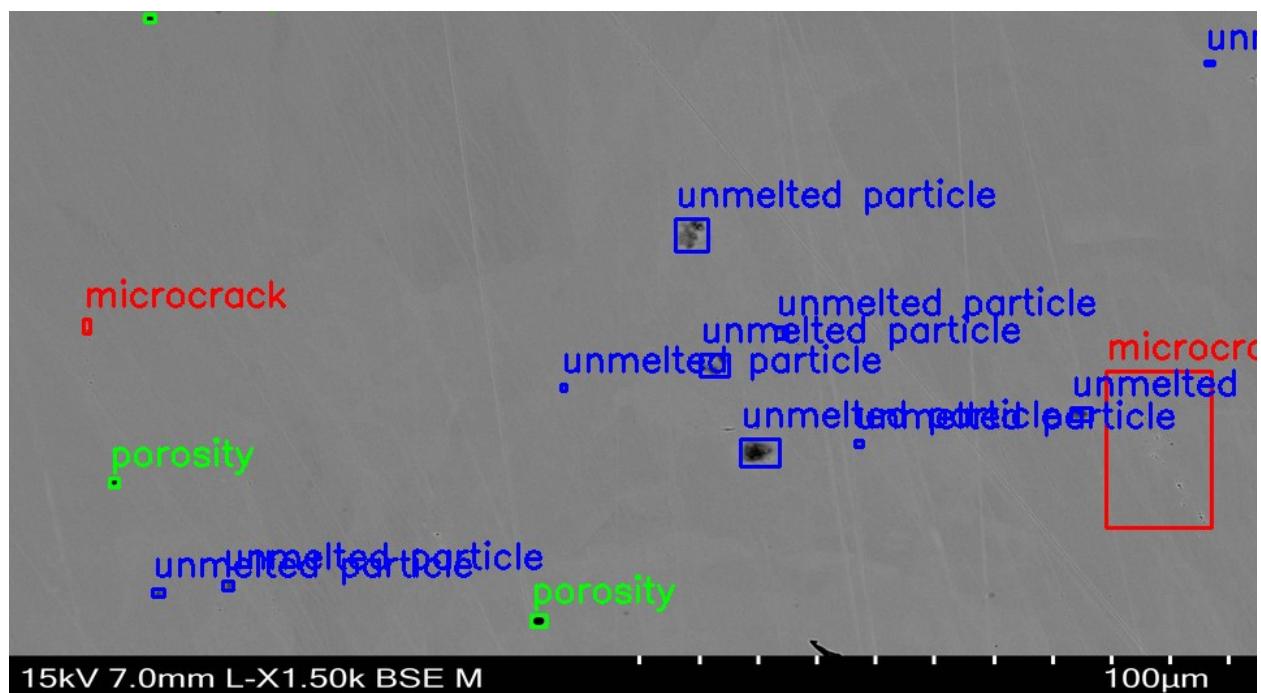
Label: unmelted particle
Length: 0.40 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6630 pixels²

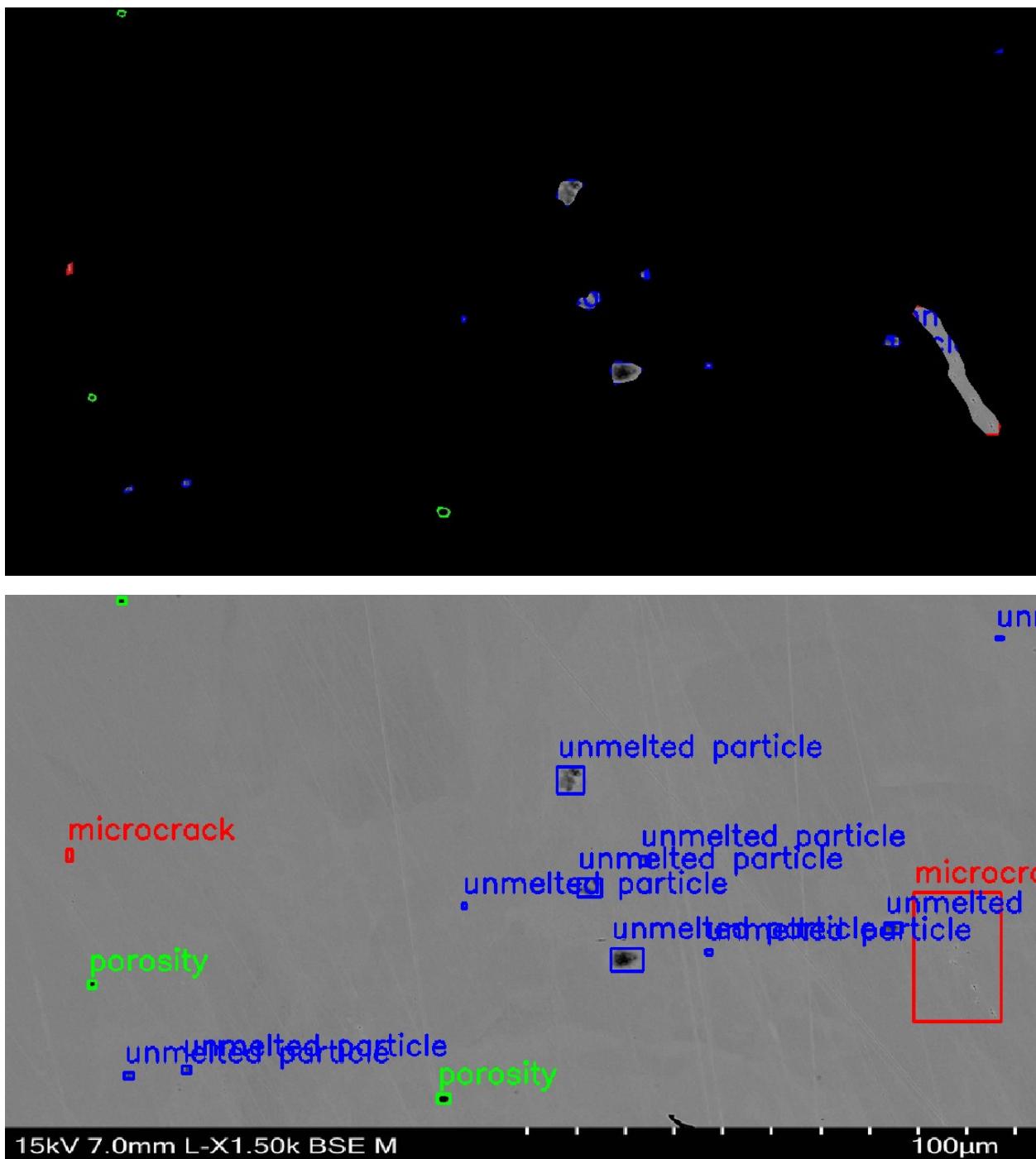
Crack 13:
Label: porosity
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11985 pixels²

Crack 14:
Label: microcrack
Length: 0.50 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14535 pixels²

Crack 15:
Label: unmelted particle
Length: 0.70 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5100 pixels²

Average area of microcracks: 2646.90 cm²
Average area of porosity: 165.75 cm²
Average area of unmelted particles: 374.85 cm²





```
!python -m pip install  
'git+https://github.com/facebookresearch/detectron2.git'  
  
Collecting git+https://github.com/facebookresearch/detectron2.git  
  Cloning https://github.com/facebookresearch/detectron2.git to  
/tmp/pip-req-build-9ouujjrw  
    Running command git clone --filter=blob:none --quiet  
https://github.com/facebookresearch/detectron2.git /tmp/pip-req-build-  
9ouujjrw  
      Resolved https://github.com/facebookresearch/detectron2.git to  
commit 57bdb21249d5418c130d54e2ebdc94dda7a4c01a  
      Preparing metadata (setup.py) ... ent already satisfied: Pillow>=7.1  
in /usr/local/lib/python3.10/dist-packages (from detectron2==0.6)  
(8.4.0)  
Requirement already satisfied: matplotlib in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (3.7.1)  
Requirement already satisfied: pycocotools>=2.0.2 in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.0.6)  
Requirement already satisfied: termcolor>=1.1 in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.3.0)  
Collecting yacs>=0.1.8 (from detectron2==0.6)  
  Downloading yacs-0.1.8-py3-none-any.whl (14 kB)  
Requirement already satisfied: tabulate in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (0.9.0)  
Requirement already satisfied: cloudpickle in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.2.1)  
Requirement already satisfied: tqdm>4.29.0 in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6)  
(4.65.0)  
Requirement already satisfied: tensorboard in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6)  
(2.12.3)  
Collecting fvcore<0.1.6,>=0.1.5 (from detectron2==0.6)  
  Downloading fvcore-0.1.5.post20221221.tar.gz (50 kB)  
----- 50.2/50.2 kB 1.2 MB/s eta  
0:00:00  
etadata (setup.py) ... detectron2==0.6)  
  Downloading iopath-0.1.9-py3-none-any.whl (27 kB)  
Collecting omegaconf>=2.1 (from detectron2==0.6)  
  Downloading omegaconf-2.3.0-py3-none-any.whl (79 kB)  
----- 79.5/79.5 kB 9.5 MB/s eta  
0:00:00  
detectron2==0.6)  
  Downloading hydra_core-1.3.2-py3-none-any.whl (154 kB)  
----- 154.5/154.5 kB 16.8 MB/s eta  
0:00:00  
detectron2==0.6)  
  Downloading black-23.7.0-cp310-cp310-  
manylinux_2_17_x86_64.manylinux2014_x86_64.whl (1.7 MB)  
----- 1.7/1.7 MB 29.2 MB/s eta
```

```
0:00:00
ent already satisfied: packaging in /usr/local/lib/python3.10/dist-
packages (from detectron2==0.6) (23.1)
Requirement already satisfied: numpy in
/usr/local/lib/python3.10/dist-packages (from fvcore<0.1.6,>=0.1.5-
>detectron2==0.6) (1.22.4)
Requirement already satisfied: pyyaml>=5.1 in
/usr/local/lib/python3.10/dist-packages (from fvcore<0.1.6,>=0.1.5-
>detectron2==0.6) (6.0.1)
Collecting antlr4-python3-runtime==4.9.* (from hydra-core>=1.1-
>detectron2==0.6)
  Downloading antlr4-python3-runtime-4.9.3.tar.gz (117 kB)
  ━━━━━━━━━━━━━━━━ 117.0/117.0 kB 11.5 MB/s eta
0:00:00
etadata (setup.py) ... iopath<0.1.10,>=0.1.7->detectron2==0.6)
  Downloading portalocker-2.7.0-py2.py3-none-any.whl (15 kB)
Requirement already satisfied: contourpy>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (1.1.0)
Requirement already satisfied: cycler>=0.10 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (0.11.0)
Requirement already satisfied: fonttools>=4.22.0 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (4.41.0)
Requirement already satisfied: kiwisolver>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (1.4.4)
Requirement already satisfied: pyparsing>=2.3.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (3.1.0)
Requirement already satisfied: python-dateutil>=2.7 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (2.8.2)
Requirement already satisfied: click>=8.0.0 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6)
(8.1.6)
Collecting mypy-extensions>=0.4.3 (from black->detectron2==0.6)
  Downloading mypy_extensions-1.0.0-py3-none-any.whl (4.7 kB)
Collecting pathspec>=0.9.0 (from black->detectron2==0.6)
  Downloading pathspec-0.11.1-py3-none-any.whl (29 kB)
Requirement already satisfied: platformdirs>=2 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6)
(3.9.1)
Requirement already satisfied: tomli>=1.1.0 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6)
(2.0.1)
Requirement already satisfied: absl-py>=0.4 in
/usr/local/lib/python3.10/dist-packages (from tensorflow-
```

```
>detectron2==0.6) (1.4.0)
Requirement already satisfied: grpcio>=1.48.2 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (1.56.0)
Requirement already satisfied: google-auth<3,>=1.6.3 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (2.17.3)
Requirement already satisfied: google-auth-oauthlib<1.1,>=0.5 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (1.0.0)
Requirement already satisfied: markdown>=2.6.8 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (3.4.3)
Requirement already satisfied: protobuf>=3.19.6 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (3.20.3)
Requirement already satisfied: requests<3,>=2.21.0 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (2.27.1)
Requirement already satisfied: setuptools>=41.0.0 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (67.7.2)
Requirement already satisfied: tensorboard-data-server<0.8.0,>=0.7.0
in /usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (0.7.1)
Requirement already satisfied: werkzeug>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (2.3.6)
Requirement already satisfied: wheel>=0.26 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (0.40.0)
Requirement already satisfied: cachetools<6.0,>=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (5.3.1)
Requirement already satisfied: pyasn1-modules>=0.2.1 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (0.3.0)
Requirement already satisfied: six>=1.9.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (1.16.0)
Requirement already satisfied: rsa<5,>=3.1.4 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (4.9)
Requirement already satisfied: requests-oauthlib>=0.7.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth-
oauthlib<1.1,>=0.5->tensorboard->detectron2==0.6) (1.3.1)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (1.26.16)
```

```
Requirement already satisfied: certifi>=2017.4.17 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (2023.5.7)
Requirement already satisfied: charset-normalizer~=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (2.0.12)
Requirement already satisfied: idna<4,>=2.5 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (3.4)
Requirement already satisfied: MarkupSafe>=2.1.1 in
/usr/local/lib/python3.10/dist-packages (from werkzeug>=1.0.1-
>tensorboard->detectron2==0.6) (2.1.3)
Requirement already satisfied: pyasn1<0.6.0,>=0.4.6 in
/usr/local/lib/python3.10/dist-packages (from pyasn1-modules>=0.2.1-
>google-auth<3,>=1.6.3->tensorboard->detectron2==0.6) (0.5.0)
Requirement already satisfied: oauthlib>=3.0.0 in
/usr/local/lib/python3.10/dist-packages (from requests-
oauthlib>=0.7.0->google-auth-oauthlib<1.1,>=0.5->tensorboard-
>detectron2==0.6) (3.2.2)
Building wheels for collected packages: detectron2, fvcore, antlr4-
python3-runtime
  Building wheel for detectron2 (setup.py) ... e=detectron2-0.6-cp310-
cp310-linux_x86_64.whl size=6114338
sha256=a976f533f006e201800add615bf643d37ff5d549f91bc646ae20bb1ec78ed43
8
    Stored in directory:
/tmp/pip-ephem-wheel-cache-95vy96fp/wheels/47/e5/15/94c80df2ba85500c5d
76599cc307c0a7079d0e221bb6fc4375
  Building wheel for fvcore (setup.py) ... e=fvcore-
0.1.5.post20221221-py3-none-any.whl size=61405
sha256=19e3992237906d1add92de6e691831ccb09c52f4e4b185f32c163555a980b07
d
    Stored in directory:
/root/.cache/pip/wheels/01/c0/af/77c1cf53a1be9e42a52b48e5af2169d40ec2e
89f7362489dd0
  Building wheel for antlr4-python3-runtime (setup.py) ... e:
filename=antlr4_python3_runtime-4.9.3-py3-none-any.whl size=144554
sha256=0a49064e8f234bb6260243dd510726907c4cee5959bb9594c03216486193d1c
1
    Stored in directory:
/root/.cache/pip/wheels/12/93/dd/1f6a127edc45659556564c5730f6d4e300888
f4bca2d4c5a88
Successfully built detectron2 fvcore antlr4-python3-runtime
Installing collected packages: antlr4-python3-runtime, yacs,
portalocker, pathspec, omegaconf, mypy-extensions, iopath, hydra-core,
black, fvcore, detectron2
Successfully installed antlr4-python3-runtime-4.9.3 black-23.7.0
detectron2-0.6 fvcore-0.1.5.post20221221 hydra-core-1.3.2 iopath-0.1.9
```

```
mypy-extensions-1.0.0 omegaconf-2.3.0 pathspec-0.11.1 portalocker-  
2.7.0 yacs-0.1.8  
!python -m pip install pyyaml==5.1  
Collecting pyyaml==5.1  
  Downloading PyYAML-5.1.tar.gz (274 kB)  
   ━━━━━━━━━━━━━━━━ 0.0/274.2 kB ? eta -:--:  
   ━━━━━━━━━━━━━━━━ 112.6/274.2 kB 3.4 MB/s eta  
0:00:01 ━━━━━━━━━━━━━━━━ 274.2/274.2 kB 5.2  
MB/s eta 0:00:00  
  etadata (setup.py) ... l  
    Building wheel for pyyaml (setup.py) ... l: filename=PyYAML-5.1-  
cp310-cp310-linux_x86_64.whl size=44090  
sha256=4fbb5a68d2a7e7acbc6f818aaf6f79187097536b5ba78ac141fdebfc478685  
8  
  Stored in directory:  
/root/.cache/pip/wheels/70/83/31/975b737609aba39a4099d471d5684141c1fdc  
3404f97e7f68a  
Successfully built pyyaml  
Installing collected packages: pyyaml  
Attempting uninstall: pyyaml  
  Found existing installation: PyYAML 6.0.1  
  Uninstalling PyYAML-6.0.1:  
    Successfully uninstalled PyYAML-6.0.1  
ERROR: pip's dependency resolver does not currently take into account  
all the packages that are installed. This behaviour is the source of  
the following dependency conflicts.  
dask 2022.12.1 requires pyyaml>=5.3.1, but you have pyyaml 5.1 which  
is incompatible.  
flax 0.7.0 requires PyYAML>=5.4.1, but you have pyyaml 5.1 which is  
incompatible.  
Successfully installed pyyaml-5.1  
  
import torch, detectron2  
!nvcc --version  
TORCH_VERSION = ".".join(torch.__version__.split(".")[:2])  
CUDA_VERSION = torch.__version__.split("+")[-1]  
print("torch: ", TORCH_VERSION, "; cuda: ", CUDA_VERSION)  
print("detectron2:", detectron2.__version__)  
  
nvcc: NVIDIA (R) Cuda compiler driver  
Copyright (c) 2005-2022 NVIDIA Corporation  
Built on Wed_Sep_21_10:33:58_PDT_2022  
Cuda compilation tools, release 11.8, V11.8.89  
Build cuda_11.8.r11.8/compiler.31833905_0  
torch: 2.0 ; cuda: cu118  
detectron2: 0.6
```

```
import detectron2
from detectron2.utils.logger import setup_logger
setup_logger()

# import some common libraries
import numpy as np
import cv2
import matplotlib.pyplot as plt

# import some common detectron2 utilities
from detectron2 import model_zoo
from detectron2.engine import DefaultPredictor
from detectron2.config import get_cfg
from detectron2.utils.visualizer import Visualizer
from detectron2.data import MetadataCatalog, DatasetCatalog

from google.colab import drive
drive.mount('/content/drive')

Mounted at /content/drive

import os
import numpy as np
import json
from detectron2.structures import BoxMode

def get_r_dicts(directory):

    classes = ['unmelted particle', 'porosity', 'microcrack']
    dataset_dicts = []
    for idx, filename in enumerate([file for file in
os.listdir(directory) if file.endswith('.json')]):
        json_file = os.path.join(directory, filename)
        with open(json_file) as f:
            img_anns = json.load(f)

        record = {}

        filename = os.path.join(directory, img_anns["imagePath"])

        record["file_name"] = filename
        record["image_id"] = idx
        record["height"] = 528
        record["width"] = 960

        annos = img_anns["shapes"]
        objs = []
        for anno in annos:
            px = [a[0] for a in anno['points']]
            py = [a[1] for a in anno['points']]
            poly = [(x, y) for x, y in zip(px, py)]
            obj = {
                "bbox": [min(px), min(py), max(px), max(py)],
                "category_id": classes.index(anno['label']),
                "iscrowd": 0
            }
            objs.append(obj)

        record["instances"] = objs
        dataset_dicts.append(record)
```

```

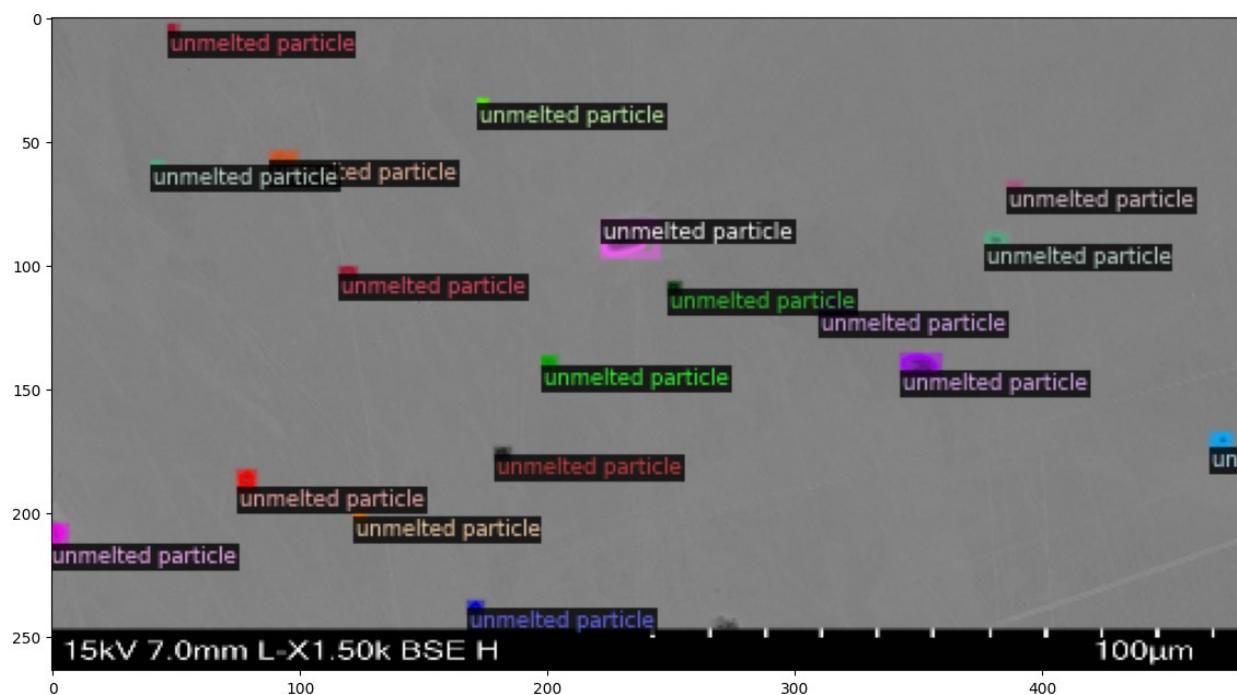
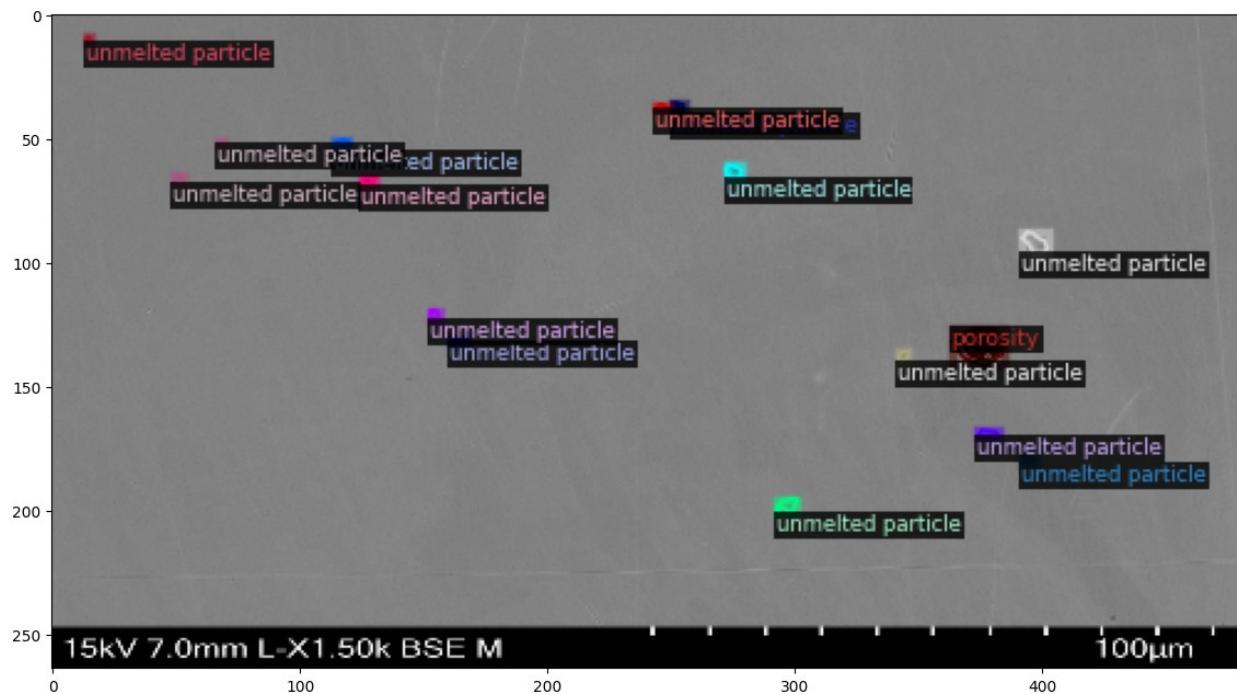
        poly = [p for x in poly for p in x]
        obj = {
            "bbox": [np.min(px), np.min(py), np.max(px),
        np.max(py)],
            "bbox_mode": BoxMode.XYXY_ABS,
            "segmentation": [poly],
            "category_id": classes.index(anno['label']),
            "iscrowd": 0
        }
        objs.append(obj)
    record["annotations"] = objs
    dataset_dicts.append(record)
return dataset_dicts

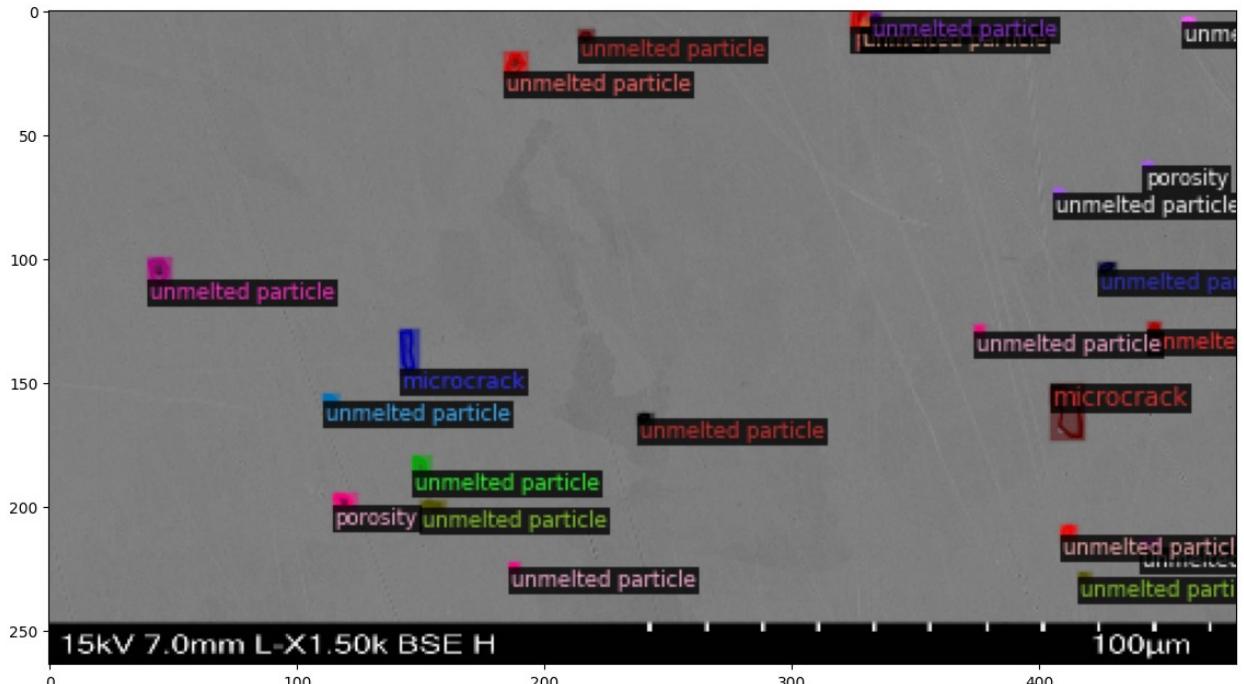
from detectron2.data import DatasetCatalog, MetadataCatalog
for d in ["train", "test"]:
    DatasetCatalog.register("p_" + d, lambda d=d:
get_r_dicts('/content/drive/MyDrive/Mahabub/' + d))
    MetadataCatalog.get("p_" + d).set(thing_classes=['unmelted
particle', 'porosity', 'microcrack'])
r_metadata = MetadataCatalog.get("p_train")

import random

dataset_dicts = get_r_dicts("/content/drive/MyDrive/Mahabub/train")
for d in random.sample(dataset_dicts, 3):
    img = cv2.imread(d["file_name"])
    v = Visualizer(img[:, :, ::-1], metadata=r_metadata, scale=0.5)
    v = v.draw_dataset_dict(d)
    plt.figure(figsize = (14, 10))
    plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1],
cv2.COLOR_BGR2RGB))
    plt.show()

```





```

DatasetCatalog.remove("p_train")
DatasetCatalog.remove("p_test")

-----
KeyError                                     Traceback (most recent call
last)
<ipython-input-16-9f969f888a51> in <cell line: 1>()
----> 1 DatasetCatalog.remove("p_train")
      2 DatasetCatalog.remove("p_test")

/usr/local/lib/python3.10/dist-packages/detectron2/data/catalog.py in
remove(self, name)
    71         Alias of ``pop``.
    72         """
---> 73         self.pop(name)
    74
    75     def __str__(self):

/usr/lib/python3.10/_collections_abc.py in pop(self, key, default)
    955     ...
    956     try:
--> 957         value = self[key]
    958     except KeyError:
    959         if default is self.__marker:

/usr/lib/python3.10/collections/__init__.py in __getitem__(self, key)
   1104         if hasattr(self.__class__, "__missing__"):

```

```

1105             return self.__class__.__missing__(self, key)
-> 1106         raise KeyError(key)
1107
1108     def __setitem__(self, key, item):
KeyError: 'p_train'

from detectron2.engine import DefaultTrainer
from detectron2.config import get_cfg
from detectron2.model_zoo import model_zoo

cfg = get_cfg()
cfg.merge_from_file(model_zoo.get_config_file("COCO-Detection/retinanet_R_101_FPN_3x.yaml"))
cfg.DATASETS.TRAIN = ("p_train",)
cfg.DATASETS.TEST = ()
cfg.DATALOADER.NUM_WORKERS = 2
cfg.MODEL.WEIGHTS =
model_zoo.get_checkpoint_url("COCO-Detection/retinanet_R_101_FPN_3x.yaml")
cfg.SOLVERIMS_PER_BATCH = 2
cfg.SOLVER.BASE_LR = 0.00025
cfg.SOLVER.MAX_ITER = 2000
cfg.SOLVER.STEPS = []           # do not decay learning rate
cfg.MODEL.RETINANET.NUM_CLASSES = 3

os.makedirs(cfg.OUTPUT_DIR, exist_ok=True)
trainer = DefaultTrainer(cfg)
trainer.resume_or_load(resume=False)
trainer.train()

WARNING:fvcore.common.config:Loading config
/usr/local/lib/python3.10/dist-packages/detectron2/model_zoo/configs/
COCO-Detection/..../Base-RetinaNet.yaml with yaml.unsafe_load. Your
machine may be at risk if the file contains malicious content.

[07/25 11:20:58 d2.engine.defaults]: Model:
RetinaNet(
    (backbone): FPN(
        (fpn_lateral3): Conv2d(512, 256, kernel_size=(1, 1), stride=(1,
1))
        (fpn_output3): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (fpn_lateral4): Conv2d(1024, 256, kernel_size=(1, 1), stride=(1,
1))
        (fpn_output4): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (fpn_lateral5): Conv2d(2048, 256, kernel_size=(1, 1), stride=(1,
1))
        (fpn_output5): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
    )
)
```

```
padding=(1, 1))
    (top_block): LastLevelP6P7(
        (p6): Conv2d(2048, 256, kernel_size=(3, 3), stride=(2, 2),
padding=(1, 1))
        (p7): Conv2d(256, 256, kernel_size=(3, 3), stride=(2, 2),
padding=(1, 1))
    )
    (bottom_up): ResNet(
        (stem): BasicStem(
            (conv1): Conv2d(
                3, 64, kernel_size=(7, 7), stride=(2, 2), padding=(3, 3),
bias=False
                (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
            )
        )
        (res2): Sequential(
            (0): BottleneckBlock(
                (shortcut): Conv2d(
                    64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
                    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
                )
                (conv1): Conv2d(
                    64, 64, kernel_size=(1, 1), stride=(1, 1), bias=False
                    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
                )
                (conv2): Conv2d(
                    64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
                    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
                )
                (conv3): Conv2d(
                    64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
                    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
                )
            )
            (1): BottleneckBlock(
                (conv1): Conv2d(
                    256, 64, kernel_size=(1, 1), stride=(1, 1), bias=False
                    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
                )
                (conv2): Conv2d(
                    64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
                    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
                )
                (conv3): Conv2d(
                    64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
                    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
                )
            )
        )
    )
)
```

```
)  
    (2): BottleneckBlock(  
        (conv1): Conv2d(  
            256, 64, kernel_size=(1, 1), stride=(1, 1), bias=False  
            (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
        )  
        (conv2): Conv2d(  
            64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),  
bias=False  
            (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
        )  
        (conv3): Conv2d(  
            64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
            (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
        )  
    )  
)  
    (res3): Sequential(  
        (0): BottleneckBlock(  
            (shortcut): Conv2d(  
                256, 512, kernel_size=(1, 1), stride=(2, 2), bias=False  
                (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)  
            )  
            (conv1): Conv2d(  
                256, 128, kernel_size=(1, 1), stride=(2, 2), bias=False  
                (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)  
            )  
            (conv2): Conv2d(  
                128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,  
1), bias=False  
                (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)  
            )  
            (conv3): Conv2d(  
                128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False  
                (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)  
            )  
        )  
        (1): BottleneckBlock(  
            (conv1): Conv2d(  
                512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False  
                (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)  
            )  
            (conv2): Conv2d(  
                128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,  
1), bias=False  
                (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)  
            )  
            (conv3): Conv2d(  
                128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
```

```
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv2): Conv2d(
        128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv3): Conv2d(
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
(3): BottleneckBlock(
    (conv1): Conv2d(
        512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv2): Conv2d(
        128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv3): Conv2d(
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
)
(res4): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            512, 1024, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
        )
        (conv1): Conv2d(
            512, 256, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
        )
        (conv2): Conv2d(
            256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
            (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
        )
    )
)
```

```
(conv3): Conv2d(
    256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
)
)
(1): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(3): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
```

```
)  
(4): BottleneckBlock(  
    (conv1): Conv2d(  
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
    )  
    (conv2): Conv2d(  
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,  
1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
    )  
    (conv3): Conv2d(  
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)  
    )  
)  
(5): BottleneckBlock(  
    (conv1): Conv2d(  
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
    )  
    (conv2): Conv2d(  
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,  
1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
    )  
    (conv3): Conv2d(  
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)  
    )  
)  
(6): BottleneckBlock(  
    (conv1): Conv2d(  
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
    )  
    (conv2): Conv2d(  
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,  
1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
    )  
    (conv3): Conv2d(  
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)  
    )  
)  
(7): BottleneckBlock(  
    (conv1): Conv2d(  
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
```

```
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(8): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(9): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(10): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
```

```
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(11): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(12): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(13): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
```

```
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(14): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(15): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(16): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
```

```
(17): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(18): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(19): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(20): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
```

```
        )
      (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
      )
      (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
      )
    )
  (21): BottleneckBlock(
    (conv1): Conv2d(
      1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
      (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
      256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
      (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
      256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
      (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
  )
  (22): BottleneckBlock(
    (conv1): Conv2d(
      1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
      (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
      256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
      (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
      256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
      (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
  )
)
(res5): Sequential(
  (0): BottleneckBlock(
    (shortcut): Conv2d(
      1024, 2048, kernel_size=(1, 1), stride=(2, 2), bias=False
      (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
    )
    (conv1): Conv2d(
      1024, 512, kernel_size=(1, 1), stride=(2, 2), bias=False
      (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
  )
)
```



```

        (1): ReLU()
        (2): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (3): ReLU()
        (4): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (5): ReLU()
        (6): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (7): ReLU()
    )
    (bbox_subnet): Sequential(
        (0): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (1): ReLU()
        (2): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (3): ReLU()
        (4): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (5): ReLU()
        (6): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (7): ReLU()
    )
    (cls_score): Conv2d(256, 27, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
    (bbox_pred): Conv2d(256, 36, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
)
(anchor_generator): DefaultAnchorGenerator(
    (cell_anchors): BufferList()
)
)
[07/25 11:20:58 d2.data.build]: Removed 0 images with no usable
annotations. 42 images left.
[07/25 11:20:58 d2.data.build]: Distribution of instances among all 3
categories:
| category | #instances | category | #instances | category |
| #instances |
|-----:|-----:|-----:|-----:|-----:|
| unmelted pa.. | 639 | porosity | 67 |
microcrack | 9 |
| | | | |
| total | 715 | | |
[07/25 11:20:58 d2.data.dataset_mapper]: [DatasetMapper] Augmentations

```

```
used in training: [ResizeShortestEdge(short_edge_length=(640, 672, 704, 736, 768, 800), max_size=1333, sample_style='choice'), RandomFlip()]

[07/25 11:20:58 d2.data.build]: Using training sampler TrainingSampler
[07/25 11:20:58 d2.data.common]: Serializing the dataset using: <class 'detectron2.data.common._TorchSerializedList'>
[07/25 11:20:58 d2.data.common]: Serializing 42 elements to byte tensors and concatenating them all ...
[07/25 11:20:58 d2.data.common]: Serialized dataset takes 0.16 MiB
[07/25 11:20:58 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-Detection/retinanet_R_101_FPN_3x/190397697/model_final_971ab9.pkl ...

model_final_971ab9.pkl: 228MB [00:04, 46.1MB/s]

WARNING:fvcore.common.checkpoint:Skip loading parameter 'head.cls_score.weight' to the model due to incompatible shapes: (720, 256, 3, 3) in the checkpoint but (27, 256, 3, 3) in the model! You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter 'head.cls_score.bias' to the model due to incompatible shapes: (720,) in the checkpoint but (27,) in the model! You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Some model parameters or buffers are not found in the checkpoint:
head.cls_score.{bias, weight}
WARNING:fvcore.common.checkpoint:The checkpoint state_dict contains keys that are not used by the model:
    pixel_mean
    pixel_std

[07/25 11:21:03 d2.engine.train_loop]: Starting training from iteration 0

/usr/local/lib/python3.10/dist-packages/torch/functional.py:504:
UserWarning: torch.meshgrid: in an upcoming release, it will be required to pass the indexing argument. (Triggered internally at .../aten/src/ATen/native/TensorShape.cpp:3483.)
    return _VF.meshgrid(tensors, **kwargs) # type: ignore[attr-defined]

[07/25 11:21:17 d2.utils.events]: eta: 0:10:53 iter: 19 total_loss: 1.898 loss_cls: 1.337 loss_box_reg: 0.5127 time: 0.5389 last_time: 0.2966 data_time: 0.0591 last_data_time: 0.0160 lr: 4.9953e-06 max_mem: 2833M
[07/25 11:21:26 d2.utils.events]: eta: 0:09:42 iter: 39 total_loss: 1.342 loss_cls: 0.9546 loss_box_reg: 0.3698 time: 0.4002 last_time: 0.2556 data_time: 0.0075 last_data_time: 0.0091 lr: 9.9902e-06 max_mem: 2916M
[07/25 11:21:32 d2.utils.events]: eta: 0:09:39 iter: 59 total_loss:
```

```
1.214 loss_cls: 0.8363 loss_box_reg: 0.3802 time: 0.3696
last_time: 0.2571 data_time: 0.0172 last_data_time: 0.0183 lr:
1.4985e-05 max_mem: 2916M
[07/25 11:21:37 d2.utils.events]: eta: 0:09:20 iter: 79 total_loss:
1.089 loss_cls: 0.7315 loss_box_reg: 0.3571 time: 0.3419
last_time: 0.2470 data_time: 0.0082 last_data_time: 0.0061 lr:
1.998e-05 max_mem: 2916M
[07/25 11:21:43 d2.utils.events]: eta: 0:09:06 iter: 99 total_loss:
1.077 loss_cls: 0.6711 loss_box_reg: 0.3927 time: 0.3278
last_time: 0.2880 data_time: 0.0096 last_data_time: 0.0103 lr:
2.4975e-05 max_mem: 2916M
[07/25 11:21:49 d2.utils.events]: eta: 0:09:03 iter: 119
total_loss: 0.9542 loss_cls: 0.5712 loss_box_reg: 0.3491 time:
0.3238 last_time: 0.2899 data_time: 0.0138 last_data_time: 0.0080
lr: 2.997e-05 max_mem: 2916M
[07/25 11:21:54 d2.utils.events]: eta: 0:08:46 iter: 139
total_loss: 0.9094 loss_cls: 0.5334 loss_box_reg: 0.3735 time:
0.3144 last_time: 0.2410 data_time: 0.0093 last_data_time: 0.0066
lr: 3.4965e-05 max_mem: 2916M
[07/25 11:22:01 d2.utils.events]: eta: 0:08:47 iter: 159
total_loss: 0.8444 loss_cls: 0.4552 loss_box_reg: 0.3222 time:
0.3157 last_time: 0.3932 data_time: 0.0163 last_data_time: 0.0227
lr: 3.996e-05 max_mem: 2916M
[07/25 11:22:06 d2.utils.events]: eta: 0:08:36 iter: 179
total_loss: 0.7493 loss_cls: 0.4229 loss_box_reg: 0.3589 time:
0.3107 last_time: 0.2479 data_time: 0.0108 last_data_time: 0.0106
lr: 4.4955e-05 max_mem: 2916M
[07/25 11:22:11 d2.utils.events]: eta: 0:08:16 iter: 199
total_loss: 0.8247 loss_cls: 0.4436 loss_box_reg: 0.3443 time:
0.3057 last_time: 0.3068 data_time: 0.0079 last_data_time: 0.0255
lr: 4.995e-05 max_mem: 2916M
[07/25 11:22:17 d2.utils.events]: eta: 0:08:19 iter: 219
total_loss: 0.8362 loss_cls: 0.4395 loss_box_reg: 0.3844 time:
0.3051 last_time: 0.2436 data_time: 0.0135 last_data_time: 0.0075
lr: 5.4945e-05 max_mem: 2916M
[07/25 11:22:22 d2.utils.events]: eta: 0:07:59 iter: 239
total_loss: 0.7496 loss_cls: 0.4138 loss_box_reg: 0.3384 time:
0.2997 last_time: 0.2066 data_time: 0.0088 last_data_time: 0.0056
lr: 5.994e-05 max_mem: 2916M
[07/25 11:22:28 d2.utils.events]: eta: 0:07:47 iter: 259
total_loss: 0.6571 loss_cls: 0.3488 loss_box_reg: 0.313 time:
0.2976 last_time: 0.2917 data_time: 0.0093 last_data_time: 0.0058
lr: 6.4935e-05 max_mem: 2916M
[07/25 11:22:33 d2.utils.events]: eta: 0:07:46 iter: 279
total_loss: 0.6601 loss_cls: 0.3461 loss_box_reg: 0.3373 time:
0.2967 last_time: 0.3037 data_time: 0.0081 last_data_time: 0.0080
lr: 6.993e-05 max_mem: 2916M
[07/25 11:22:38 d2.utils.events]: eta: 0:07:31 iter: 299
total_loss: 0.652 loss_cls: 0.3337 loss_box_reg: 0.3176 time:
```

```
0.2933 last_time: 0.2124 data_time: 0.0096 last_data_time: 0.0091
lr: 7.4925e-05 max_mem: 2916M
[07/25 11:22:44 d2.utils.events]: eta: 0:07:28 iter: 319
total_loss: 0.7376 loss_cls: 0.3626 loss_box_reg: 0.3792 time:
0.2942 last_time: 0.3536 data_time: 0.0096 last_data_time: 0.0124
lr: 7.992e-05 max_mem: 2916M
[07/25 11:22:50 d2.utils.events]: eta: 0:07:23 iter: 339
total_loss: 0.6173 loss_cls: 0.2935 loss_box_reg: 0.3294 time:
0.2929 last_time: 0.2999 data_time: 0.0079 last_data_time: 0.0073
lr: 8.4915e-05 max_mem: 2916M
[07/25 11:22:55 d2.utils.events]: eta: 0:07:17 iter: 359
total_loss: 0.5881 loss_cls: 0.2813 loss_box_reg: 0.3242 time:
0.2916 last_time: 0.2426 data_time: 0.0067 last_data_time: 0.0057
lr: 8.991e-05 max_mem: 2916M
[07/25 11:23:02 d2.utils.events]: eta: 0:07:15 iter: 379
total_loss: 0.6232 loss_cls: 0.2795 loss_box_reg: 0.3251 time:
0.2928 last_time: 0.2487 data_time: 0.0183 last_data_time: 0.0053
lr: 9.4905e-05 max_mem: 2916M
[07/25 11:23:07 d2.utils.events]: eta: 0:07:11 iter: 399
total_loss: 0.5777 loss_cls: 0.2686 loss_box_reg: 0.3108 time:
0.2922 last_time: 0.3035 data_time: 0.0099 last_data_time: 0.0082
lr: 9.99e-05 max_mem: 2916M
[07/25 11:23:13 d2.utils.events]: eta: 0:07:04 iter: 419
total_loss: 0.6232 loss_cls: 0.2818 loss_box_reg: 0.3244 time:
0.2920 last_time: 0.2892 data_time: 0.0113 last_data_time: 0.0226
lr: 0.0001049 max_mem: 2916M
[07/25 11:23:19 d2.utils.events]: eta: 0:06:58 iter: 439
total_loss: 0.5455 loss_cls: 0.2584 loss_box_reg: 0.2989 time:
0.2915 last_time: 0.2955 data_time: 0.0091 last_data_time: 0.0103
lr: 0.00010989 max_mem: 2916M
[07/25 11:23:24 d2.utils.events]: eta: 0:06:52 iter: 459
total_loss: 0.5962 loss_cls: 0.2516 loss_box_reg: 0.3166 time:
0.2904 last_time: 0.2484 data_time: 0.0079 last_data_time: 0.0075
lr: 0.00011489 max_mem: 2916M
[07/25 11:23:30 d2.utils.events]: eta: 0:06:53 iter: 479
total_loss: 0.5636 loss_cls: 0.2575 loss_box_reg: 0.3079 time:
0.2914 last_time: 0.2468 data_time: 0.0171 last_data_time: 0.0076
lr: 0.00011988 max_mem: 2916M
[07/25 11:23:35 d2.utils.events]: eta: 0:06:41 iter: 499
total_loss: 0.5418 loss_cls: 0.2414 loss_box_reg: 0.3037 time:
0.2898 last_time: 0.2116 data_time: 0.0083 last_data_time: 0.0087
lr: 0.00012488 max_mem: 2916M
[07/25 11:23:41 d2.utils.events]: eta: 0:06:35 iter: 519
total_loss: 0.5535 loss_cls: 0.2746 loss_box_reg: 0.2808 time:
0.2895 last_time: 0.3319 data_time: 0.0094 last_data_time: 0.0229
lr: 0.00012987 max_mem: 2932M
[07/25 11:23:47 d2.utils.events]: eta: 0:06:32 iter: 539
total_loss: 0.5542 loss_cls: 0.2335 loss_box_reg: 0.3208 time:
0.2896 last_time: 0.2667 data_time: 0.0090 last_data_time: 0.0059
```

```
lr: 0.00013487 max_mem: 2932M
[07/25 11:23:52 d2.utils.events]: eta: 0:06:25 iter: 559
total_loss: 0.5331 loss_cls: 0.2238 loss_box_reg: 0.3102 time:
0.2888 last_time: 0.3183 data_time: 0.0079 last_data_time: 0.0089
lr: 0.00013986 max_mem: 2932M
[07/25 11:23:58 d2.utils.events]: eta: 0:06:24 iter: 579
total_loss: 0.5427 loss_cls: 0.2479 loss_box_reg: 0.279 time:
0.2896 last_time: 0.3561 data_time: 0.0160 last_data_time: 0.0068
lr: 0.00014486 max_mem: 2932M
[07/25 11:24:04 d2.utils.events]: eta: 0:06:19 iter: 599
total_loss: 0.5354 loss_cls: 0.2206 loss_box_reg: 0.308 time:
0.2891 last_time: 0.3023 data_time: 0.0100 last_data_time: 0.0060
lr: 0.00014985 max_mem: 2932M
[07/25 11:24:09 d2.utils.events]: eta: 0:06:10 iter: 619
total_loss: 0.492 loss_cls: 0.2141 loss_box_reg: 0.2719 time:
0.2883 last_time: 0.3891 data_time: 0.0082 last_data_time: 0.0119
lr: 0.00015485 max_mem: 2932M
[07/25 11:24:16 d2.utils.events]: eta: 0:06:08 iter: 639
total_loss: 0.543 loss_cls: 0.2301 loss_box_reg: 0.3034 time:
0.2892 last_time: 0.2080 data_time: 0.0129 last_data_time: 0.0070
lr: 0.00015984 max_mem: 2932M
[07/25 11:24:21 d2.utils.events]: eta: 0:05:59 iter: 659
total_loss: 0.4984 loss_cls: 0.195 loss_box_reg: 0.2852 time:
0.2884 last_time: 0.2529 data_time: 0.0098 last_data_time: 0.0074
lr: 0.00016484 max_mem: 2932M
[07/25 11:24:27 d2.utils.events]: eta: 0:05:57 iter: 679
total_loss: 0.5158 loss_cls: 0.2149 loss_box_reg: 0.3012 time:
0.2895 last_time: 0.2539 data_time: 0.0146 last_data_time: 0.0126
lr: 0.00016983 max_mem: 2932M
[07/25 11:24:33 d2.utils.events]: eta: 0:05:52 iter: 699
total_loss: 0.4627 loss_cls: 0.1968 loss_box_reg: 0.2675 time:
0.2892 last_time: 0.2998 data_time: 0.0088 last_data_time: 0.0092
lr: 0.00017483 max_mem: 2932M
[07/25 11:24:38 d2.utils.events]: eta: 0:05:42 iter: 719
total_loss: 0.5467 loss_cls: 0.2132 loss_box_reg: 0.3089 time:
0.2884 last_time: 0.2506 data_time: 0.0102 last_data_time: 0.0128
lr: 0.00017982 max_mem: 2932M
[07/25 11:24:44 d2.utils.events]: eta: 0:05:41 iter: 739
total_loss: 0.4644 loss_cls: 0.1969 loss_box_reg: 0.2673 time:
0.2891 last_time: 0.3119 data_time: 0.0161 last_data_time: 0.0074
lr: 0.00018482 max_mem: 2932M
[07/25 11:24:50 d2.utils.events]: eta: 0:05:34 iter: 759
total_loss: 0.4581 loss_cls: 0.1881 loss_box_reg: 0.269 time:
0.2886 last_time: 0.2601 data_time: 0.0104 last_data_time: 0.0072
lr: 0.00018981 max_mem: 2932M
[07/25 11:24:56 d2.utils.events]: eta: 0:05:30 iter: 779
total_loss: 0.5036 loss_cls: 0.1826 loss_box_reg: 0.2979 time:
0.2892 last_time: 0.3019 data_time: 0.0110 last_data_time: 0.0193
lr: 0.00019481 max_mem: 2932M
```

```
[07/25 11:25:02 d2.utils.events]: eta: 0:05:23 iter: 799
total_loss: 0.4101 loss_cls: 0.164 loss_box_reg: 0.242 time:
0.2887 last_time: 0.2241 data_time: 0.0093 last_data_time: 0.0068
lr: 0.0001998 max_mem: 2932M
[07/25 11:25:07 d2.utils.events]: eta: 0:05:15 iter: 819
total_loss: 0.4922 loss_cls: 0.1933 loss_box_reg: 0.2786 time:
0.2878 last_time: 0.2495 data_time: 0.0089 last_data_time: 0.0091
lr: 0.0002048 max_mem: 2932M
[07/25 11:25:13 d2.utils.events]: eta: 0:05:13 iter: 839
total_loss: 0.4722 loss_cls: 0.169 loss_box_reg: 0.2765 time:
0.2885 last_time: 0.2975 data_time: 0.0135 last_data_time: 0.0058
lr: 0.00020979 max_mem: 2932M
[07/25 11:25:18 d2.utils.events]: eta: 0:05:07 iter: 859
total_loss: 0.4291 loss_cls: 0.1609 loss_box_reg: 0.2591 time:
0.2880 last_time: 0.2497 data_time: 0.0097 last_data_time: 0.0082
lr: 0.00021479 max_mem: 2932M
[07/25 11:25:24 d2.utils.events]: eta: 0:05:03 iter: 879
total_loss: 0.4322 loss_cls: 0.1665 loss_box_reg: 0.2682 time:
0.2882 last_time: 0.2257 data_time: 0.0124 last_data_time: 0.0066
lr: 0.00021978 max_mem: 2932M
[07/25 11:25:30 d2.utils.events]: eta: 0:04:58 iter: 899
total_loss: 0.4773 loss_cls: 0.1971 loss_box_reg: 0.2855 time:
0.2883 last_time: 0.3308 data_time: 0.0082 last_data_time: 0.0055
lr: 0.00022478 max_mem: 2932M
[07/25 11:25:36 d2.utils.events]: eta: 0:04:54 iter: 919
total_loss: 0.3905 loss_cls: 0.1719 loss_box_reg: 0.2201 time:
0.2884 last_time: 0.3159 data_time: 0.0102 last_data_time: 0.0113
lr: 0.00022977 max_mem: 2932M
[07/25 11:25:43 d2.utils.events]: eta: 0:04:49 iter: 939
total_loss: 0.4373 loss_cls: 0.1593 loss_box_reg: 0.2642 time:
0.2893 last_time: 0.2525 data_time: 0.0149 last_data_time: 0.0067
lr: 0.00023477 max_mem: 2932M
[07/25 11:25:48 d2.utils.events]: eta: 0:04:43 iter: 959
total_loss: 0.4123 loss_cls: 0.1585 loss_box_reg: 0.2487 time:
0.2889 last_time: 0.2918 data_time: 0.0092 last_data_time: 0.0058
lr: 0.00023976 max_mem: 2932M
[07/25 11:25:54 d2.utils.events]: eta: 0:04:38 iter: 979
total_loss: 0.4576 loss_cls: 0.1672 loss_box_reg: 0.2805 time:
0.2892 last_time: 0.3940 data_time: 0.0073 last_data_time: 0.0066
lr: 0.00024476 max_mem: 2932M
[07/25 11:26:00 d2.utils.events]: eta: 0:04:32 iter: 999
total_loss: 0.3946 loss_cls: 0.1454 loss_box_reg: 0.2335 time:
0.2890 last_time: 0.2456 data_time: 0.0089 last_data_time: 0.0073
lr: 0.00024975 max_mem: 2932M
[07/25 11:26:05 d2.utils.events]: eta: 0:04:24 iter: 1019
total_loss: 0.4281 loss_cls: 0.1604 loss_box_reg: 0.2676 time:
0.2885 last_time: 0.3365 data_time: 0.0071 last_data_time: 0.0079
lr: 0.00025 max_mem: 2932M
[07/25 11:26:11 d2.utils.events]: eta: 0:04:20 iter: 1039
```

```
total_loss: 0.4316 loss_cls: 0.1485 loss_box_reg: 0.2804 time:  
0.2891 last_time: 0.3082 data_time: 0.0081 last_data_time: 0.0051  
lr: 0.00025 max_mem: 2932M  
[07/25 11:26:17 d2.utils.events]: eta: 0:04:11 iter: 1059  
total_loss: 0.4312 loss_cls: 0.1641 loss_box_reg: 0.2569 time:  
0.2888 last_time: 0.2277 data_time: 0.0077 last_data_time: 0.0075  
lr: 0.00025 max_mem: 2932M  
[07/25 11:26:23 d2.utils.events]: eta: 0:04:09 iter: 1079  
total_loss: 0.3822 loss_cls: 0.155 loss_box_reg: 0.2262 time:  
0.2889 last_time: 0.2423 data_time: 0.0092 last_data_time: 0.0119  
lr: 0.00025 max_mem: 2933M  
[07/25 11:26:29 d2.utils.events]: eta: 0:04:04 iter: 1099  
total_loss: 0.4115 loss_cls: 0.1493 loss_box_reg: 0.246 time:  
0.2893 last_time: 0.3578 data_time: 0.0076 last_data_time: 0.0059  
lr: 0.00025 max_mem: 2933M  
[07/25 11:26:34 d2.utils.events]: eta: 0:03:56 iter: 1119  
total_loss: 0.371 loss_cls: 0.1371 loss_box_reg: 0.2381 time:  
0.2889 last_time: 0.1974 data_time: 0.0079 last_data_time: 0.0091  
lr: 0.00025 max_mem: 2933M  
[07/25 11:26:41 d2.utils.events]: eta: 0:03:53 iter: 1139  
total_loss: 0.4015 loss_cls: 0.1447 loss_box_reg: 0.2621 time:  
0.2894 last_time: 0.2518 data_time: 0.0169 last_data_time: 0.0067  
lr: 0.00025 max_mem: 2933M  
[07/25 11:26:46 d2.utils.events]: eta: 0:03:46 iter: 1159  
total_loss: 0.4044 loss_cls: 0.1542 loss_box_reg: 0.2589 time:  
0.2890 last_time: 0.2489 data_time: 0.0087 last_data_time: 0.0067  
lr: 0.00025 max_mem: 2933M  
[07/25 11:26:52 d2.utils.events]: eta: 0:03:42 iter: 1179  
total_loss: 0.3583 loss_cls: 0.1276 loss_box_reg: 0.2335 time:  
0.2892 last_time: 0.2796 data_time: 0.0106 last_data_time: 0.0142  
lr: 0.00025 max_mem: 2933M  
[07/25 11:26:58 d2.utils.events]: eta: 0:03:38 iter: 1199  
total_loss: 0.402 loss_cls: 0.1527 loss_box_reg: 0.2519 time:  
0.2892 last_time: 0.2015 data_time: 0.0099 last_data_time: 0.0077  
lr: 0.00025 max_mem: 2933M  
[07/25 11:27:03 d2.utils.events]: eta: 0:03:31 iter: 1219  
total_loss: 0.3374 loss_cls: 0.1303 loss_box_reg: 0.213 time:  
0.2889 last_time: 0.2983 data_time: 0.0080 last_data_time: 0.0082  
lr: 0.00025 max_mem: 2933M  
[07/25 11:27:09 d2.utils.events]: eta: 0:03:28 iter: 1239  
total_loss: 0.3911 loss_cls: 0.1303 loss_box_reg: 0.247 time:  
0.2891 last_time: 0.2958 data_time: 0.0148 last_data_time: 0.0248  
lr: 0.00025 max_mem: 2933M  
[07/25 11:27:15 d2.utils.events]: eta: 0:03:23 iter: 1259  
total_loss: 0.3475 loss_cls: 0.1227 loss_box_reg: 0.2129 time:  
0.2888 last_time: 0.2170 data_time: 0.0095 last_data_time: 0.0068  
lr: 0.00025 max_mem: 2933M  
[07/25 11:27:21 d2.utils.events]: eta: 0:03:18 iter: 1279  
total_loss: 0.3463 loss_cls: 0.1254 loss_box_reg: 0.2277 time:
```

```
0.2888 last_time: 0.2898 data_time: 0.0088 last_data_time: 0.0193
lr: 0.00025 max_mem: 2933M
[07/25 11:27:27 d2.utils.events]: eta: 0:03:14 iter: 1299
total_loss: 0.375 loss_cls: 0.1275 loss_box_reg: 0.243 time:
0.2891 last_time: 0.2427 data_time: 0.0120 last_data_time: 0.0065
lr: 0.00025 max_mem: 2933M
[07/25 11:27:32 d2.utils.events]: eta: 0:03:08 iter: 1319
total_loss: 0.3391 loss_cls: 0.1131 loss_box_reg: 0.2216 time:
0.2888 last_time: 0.3229 data_time: 0.0084 last_data_time: 0.0060
lr: 0.00025 max_mem: 2933M
[07/25 11:27:38 d2.utils.events]: eta: 0:03:02 iter: 1339
total_loss: 0.3546 loss_cls: 0.1228 loss_box_reg: 0.2201 time:
0.2889 last_time: 0.3129 data_time: 0.0119 last_data_time: 0.0258
lr: 0.00025 max_mem: 2933M
[07/25 11:27:44 d2.utils.events]: eta: 0:02:56 iter: 1359
total_loss: 0.328 loss_cls: 0.12 loss_box_reg: 0.2137 time:
0.2888 last_time: 0.3208 data_time: 0.0090 last_data_time: 0.0070
lr: 0.00025 max_mem: 2933M
[07/25 11:27:49 d2.utils.events]: eta: 0:02:51 iter: 1379
total_loss: 0.3467 loss_cls: 0.1137 loss_box_reg: 0.2321 time:
0.2887 last_time: 0.3107 data_time: 0.0107 last_data_time: 0.0180
lr: 0.00025 max_mem: 2933M
[07/25 11:27:56 d2.utils.events]: eta: 0:02:45 iter: 1399
total_loss: 0.3683 loss_cls: 0.1364 loss_box_reg: 0.2283 time:
0.2890 last_time: 0.2216 data_time: 0.0083 last_data_time: 0.0072
lr: 0.00025 max_mem: 2933M
[07/25 11:28:01 d2.utils.events]: eta: 0:02:39 iter: 1419
total_loss: 0.3881 loss_cls: 0.1202 loss_box_reg: 0.2345 time:
0.2887 last_time: 0.2540 data_time: 0.0081 last_data_time: 0.0068
lr: 0.00025 max_mem: 2933M
[07/25 11:28:07 d2.utils.events]: eta: 0:02:34 iter: 1439
total_loss: 0.3022 loss_cls: 0.1028 loss_box_reg: 0.21 time:
0.2891 last_time: 0.4277 data_time: 0.0148 last_data_time: 0.0332
lr: 0.00025 max_mem: 2933M
[07/25 11:28:13 d2.utils.events]: eta: 0:02:28 iter: 1459
total_loss: 0.3418 loss_cls: 0.1177 loss_box_reg: 0.2241 time:
0.2888 last_time: 0.2504 data_time: 0.0087 last_data_time: 0.0054
lr: 0.00025 max_mem: 2933M
[07/25 11:28:18 d2.utils.events]: eta: 0:02:21 iter: 1479
total_loss: 0.3189 loss_cls: 0.1102 loss_box_reg: 0.2212 time:
0.2886 last_time: 0.2637 data_time: 0.0079 last_data_time: 0.0062
lr: 0.00025 max_mem: 2933M
[07/25 11:28:24 d2.utils.events]: eta: 0:02:18 iter: 1499
total_loss: 0.3248 loss_cls: 0.1065 loss_box_reg: 0.2139 time:
0.2889 last_time: 0.3436 data_time: 0.0107 last_data_time: 0.0062
lr: 0.00025 max_mem: 2933M
[07/25 11:28:30 d2.utils.events]: eta: 0:02:12 iter: 1519
total_loss: 0.2947 loss_cls: 0.09337 loss_box_reg: 0.1959 time:
0.2887 last_time: 0.3386 data_time: 0.0093 last_data_time: 0.0059
```

```
lr: 0.00025 max_mem: 2933M
[07/25 11:28:36 d2.utils.events]: eta: 0:02:07 iter: 1539
total_loss: 0.3202 loss_cls: 0.1131 loss_box_reg: 0.2114 time:
0.2890 last_time: 0.3257 data_time: 0.0129 last_data_time: 0.0306
lr: 0.00025 max_mem: 2933M
[07/25 11:28:42 d2.utils.events]: eta: 0:02:01 iter: 1559
total_loss: 0.2794 loss_cls: 0.09443 loss_box_reg: 0.1783 time:
0.2890 last_time: 0.2508 data_time: 0.0091 last_data_time: 0.0077
lr: 0.00025 max_mem: 2933M
[07/25 11:28:48 d2.utils.events]: eta: 0:01:55 iter: 1579
total_loss: 0.2951 loss_cls: 0.1025 loss_box_reg: 0.2068 time:
0.2889 last_time: 0.3952 data_time: 0.0097 last_data_time: 0.0060
lr: 0.00025 max_mem: 2933M
[07/25 11:28:54 d2.utils.events]: eta: 0:01:50 iter: 1599
total_loss: 0.293 loss_cls: 0.1096 loss_box_reg: 0.1861 time:
0.2892 last_time: 0.2447 data_time: 0.0125 last_data_time: 0.0084
lr: 0.00025 max_mem: 2933M
[07/25 11:28:59 d2.utils.events]: eta: 0:01:45 iter: 1619
total_loss: 0.3113 loss_cls: 0.09173 loss_box_reg: 0.2019 time:
0.2890 last_time: 0.2973 data_time: 0.0084 last_data_time: 0.0055
lr: 0.00025 max_mem: 2933M
[07/25 11:29:06 d2.utils.events]: eta: 0:01:39 iter: 1639
total_loss: 0.2679 loss_cls: 0.08808 loss_box_reg: 0.1852 time:
0.2894 last_time: 0.4436 data_time: 0.0132 last_data_time: 0.0306
lr: 0.00025 max_mem: 2933M
[07/25 11:29:11 d2.utils.events]: eta: 0:01:34 iter: 1659
total_loss: 0.335 loss_cls: 0.1045 loss_box_reg: 0.2239 time:
0.2892 last_time: 0.3349 data_time: 0.0082 last_data_time: 0.0051
lr: 0.00025 max_mem: 2933M
[07/25 11:29:17 d2.utils.events]: eta: 0:01:28 iter: 1679
total_loss: 0.3034 loss_cls: 0.09743 loss_box_reg: 0.2036 time:
0.2890 last_time: 0.2622 data_time: 0.0093 last_data_time: 0.0203
lr: 0.00025 max_mem: 2933M
[07/25 11:29:23 d2.utils.events]: eta: 0:01:22 iter: 1699
total_loss: 0.3534 loss_cls: 0.1181 loss_box_reg: 0.2276 time:
0.2895 last_time: 0.2460 data_time: 0.0127 last_data_time: 0.0075
lr: 0.00025 max_mem: 2933M
[07/25 11:29:28 d2.utils.events]: eta: 0:01:17 iter: 1719
total_loss: 0.308 loss_cls: 0.104 loss_box_reg: 0.1978 time:
0.2890 last_time: 0.3030 data_time: 0.0085 last_data_time: 0.0070
lr: 0.00025 max_mem: 2933M
[07/25 11:29:34 d2.utils.events]: eta: 0:01:10 iter: 1739
total_loss: 0.2836 loss_cls: 0.0934 loss_box_reg: 0.1862 time:
0.2891 last_time: 0.3960 data_time: 0.0116 last_data_time: 0.0059
lr: 0.00025 max_mem: 2933M
[07/25 11:29:41 d2.utils.events]: eta: 0:01:06 iter: 1759
total_loss: 0.2937 loss_cls: 0.08975 loss_box_reg: 0.2042 time:
0.2894 last_time: 0.3137 data_time: 0.0111 last_data_time: 0.0057
lr: 0.00025 max_mem: 2933M
```

```
[07/25 11:29:46 d2.utils.events]: eta: 0:01:00 iter: 1779
total_loss: 0.2816 loss_cls: 0.07974 loss_box_reg: 0.1917 time:
0.2893 last_time: 0.2762 data_time: 0.0075 last_data_time: 0.0089
lr: 0.00025 max_mem: 2933M
[07/25 11:29:53 d2.utils.events]: eta: 0:00:55 iter: 1799
total_loss: 0.2546 loss_cls: 0.08115 loss_box_reg: 0.1726 time:
0.2896 last_time: 0.2601 data_time: 0.0143 last_data_time: 0.0216
lr: 0.00025 max_mem: 2933M
[07/25 11:29:59 d2.utils.events]: eta: 0:00:50 iter: 1819
total_loss: 0.3138 loss_cls: 0.1011 loss_box_reg: 0.1969 time:
0.2897 last_time: 0.2998 data_time: 0.0094 last_data_time: 0.0069
lr: 0.00025 max_mem: 2933M
[07/25 11:30:05 d2.utils.events]: eta: 0:00:45 iter: 1839
total_loss: 0.2967 loss_cls: 0.09357 loss_box_reg: 0.2011 time:
0.2902 last_time: 0.2800 data_time: 0.0109 last_data_time: 0.0080
lr: 0.00025 max_mem: 2933M
[07/25 11:30:10 d2.utils.events]: eta: 0:00:39 iter: 1859
total_loss: 0.2646 loss_cls: 0.07796 loss_box_reg: 0.1805 time:
0.2899 last_time: 0.2939 data_time: 0.0072 last_data_time: 0.0052
lr: 0.00025 max_mem: 2933M
[07/25 11:30:16 d2.utils.events]: eta: 0:00:33 iter: 1879
total_loss: 0.2573 loss_cls: 0.07447 loss_box_reg: 0.1799 time:
0.2896 last_time: 0.4247 data_time: 0.0104 last_data_time: 0.0059
lr: 0.00025 max_mem: 2933M
[07/25 11:30:22 d2.utils.events]: eta: 0:00:27 iter: 1899
total_loss: 0.2752 loss_cls: 0.08372 loss_box_reg: 0.1788 time:
0.2898 last_time: 0.3119 data_time: 0.0167 last_data_time: 0.0083
lr: 0.00025 max_mem: 2933M
[07/25 11:30:28 d2.utils.events]: eta: 0:00:22 iter: 1919
total_loss: 0.2944 loss_cls: 0.09137 loss_box_reg: 0.2042 time:
0.2898 last_time: 0.2218 data_time: 0.0081 last_data_time: 0.0121
lr: 0.00025 max_mem: 2933M
[07/25 11:30:35 d2.utils.events]: eta: 0:00:16 iter: 1939
total_loss: 0.275 loss_cls: 0.08577 loss_box_reg: 0.1877 time:
0.2904 last_time: 0.2741 data_time: 0.0155 last_data_time: 0.0073
lr: 0.00025 max_mem: 2933M
[07/25 11:30:40 d2.utils.events]: eta: 0:00:11 iter: 1959
total_loss: 0.2537 loss_cls: 0.08225 loss_box_reg: 0.1816 time:
0.2903 last_time: 0.2557 data_time: 0.0084 last_data_time: 0.0096
lr: 0.00025 max_mem: 2933M
[07/25 11:30:46 d2.utils.events]: eta: 0:00:05 iter: 1979
total_loss: 0.2563 loss_cls: 0.08571 loss_box_reg: 0.1791 time:
0.2903 last_time: 0.3197 data_time: 0.0108 last_data_time: 0.0206
lr: 0.00025 max_mem: 2933M
[07/25 11:30:53 d2.utils.events]: eta: 0:00:00 iter: 1999
total_loss: 0.2599 loss_cls: 0.07856 loss_box_reg: 0.1832 time:
0.2904 last_time: 0.2115 data_time: 0.0096 last_data_time: 0.0068
lr: 0.00025 max_mem: 2933M
[07/25 11:30:54 d2.engine.hooks]: Overall training speed: 1998
iterations in 0:09:40 (0.2904 s / it)
```

```
[07/25 11:30:54 d2.engine.hooks]: Total training time: 0:09:46
(0:00:05 on hooks)

# Look at training curves in tensorboard:

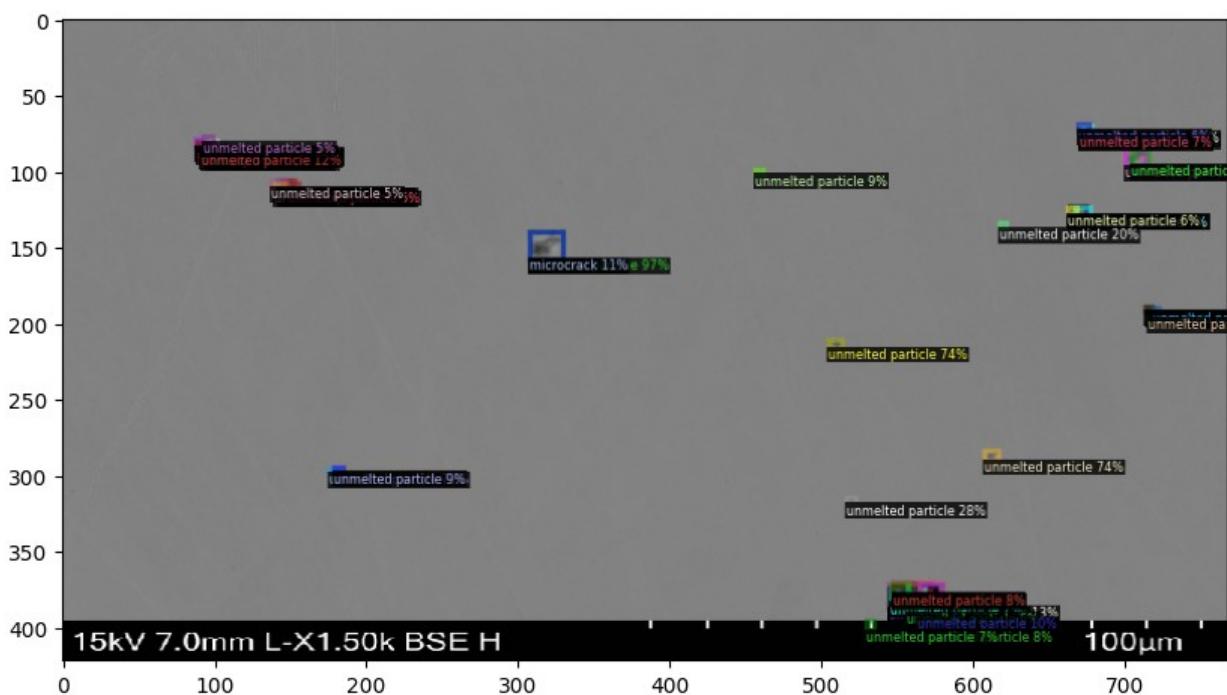
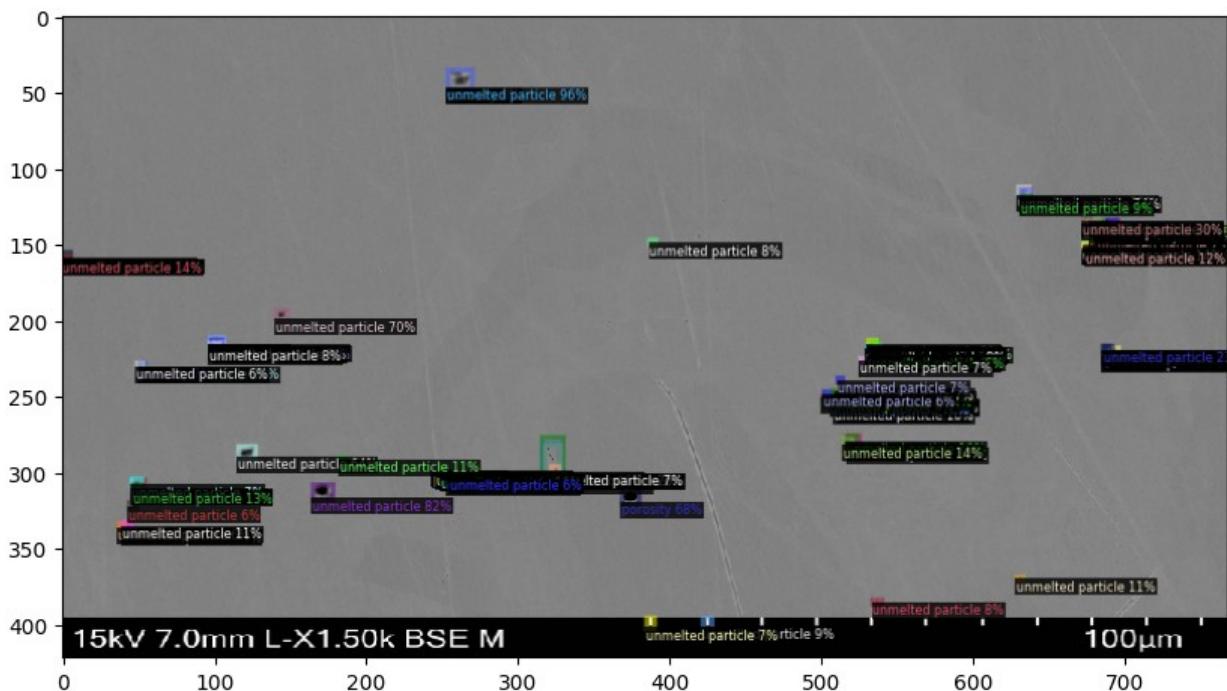
%load_ext tensorboard
%tensorboard --logdir output

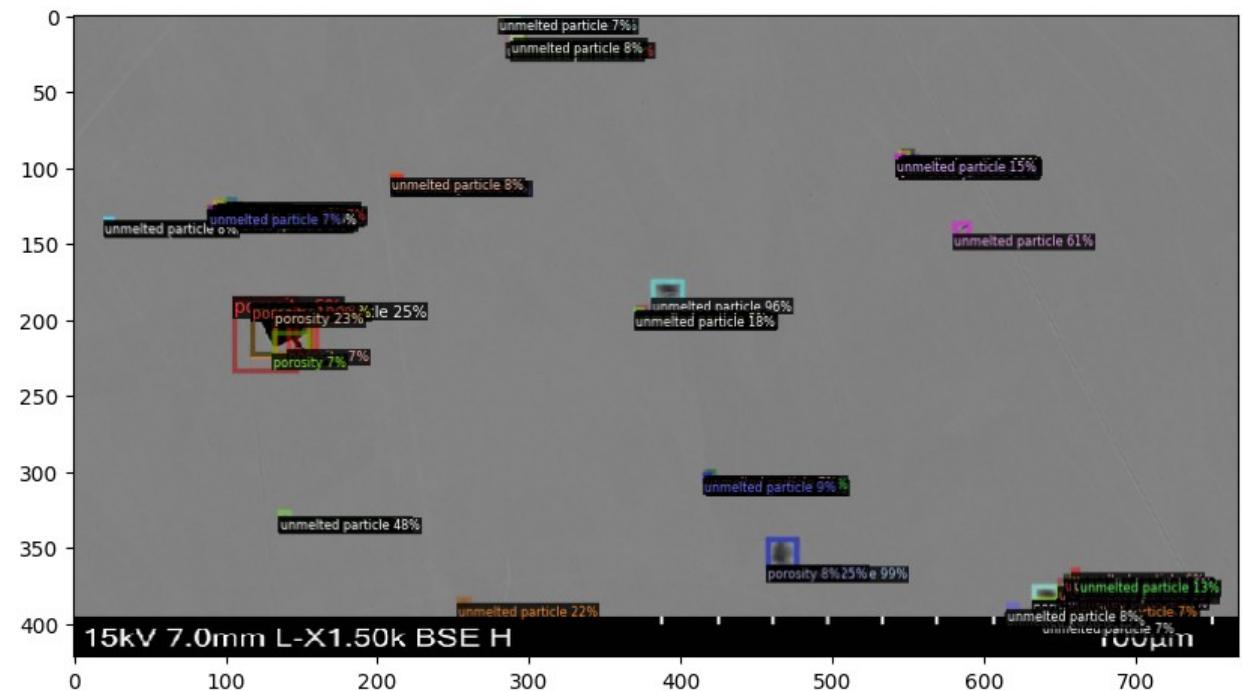
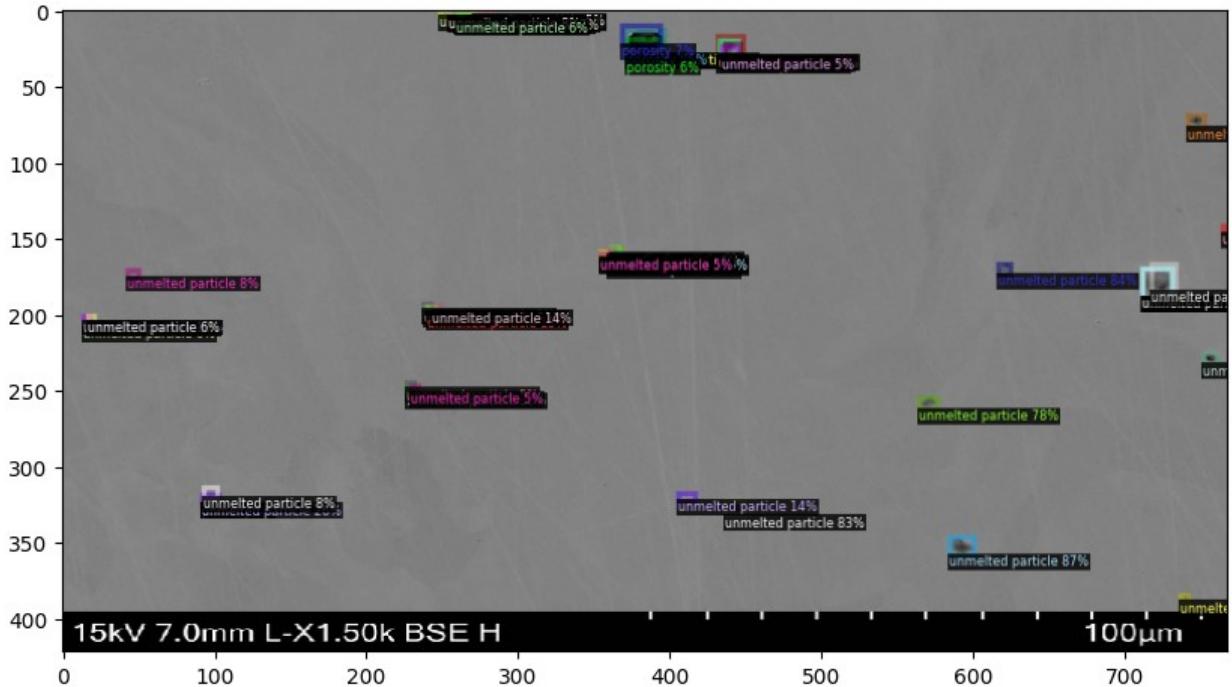
<IPython.core.display.Javascript object>

cfg.MODEL.WEIGHTS = os.path.join(cfg.OUTPUT_DIR, "model_final.pth")
cfg.MODEL.ROI_HEADS.SCORE_THRESH_TEST = 0.5
cfg.DATASETS.TEST = ("p_test", )
predictor = DefaultPredictor(cfg)

[07/25 11:31:48 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from ./output/model_final.pth ...

from detectron2.utils.visualizer import ColorMode
dataset_dicts = get_r_dicts('/content/drive/MyDrive/Mahabub/train')
for d in random.sample(dataset_dicts, 4):
    im = cv2.imread(d["file_name"])
    outputs = predictor(im)
    v = Visualizer(im[:, :, ::-1],
                   metadata=r_metadata,
                   scale=0.8,
                   instance_mode=ColorMode.IMAGE_BW    # remove the
    colors of unsegmented pixels
    )
    v = v.draw_instance_predictions(outputs["instances"].to("cpu"))
    plt.figure(figsize = (10, 10))
    plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1],
    cv2.COLOR_BGR2RGB))
    plt.show()
```



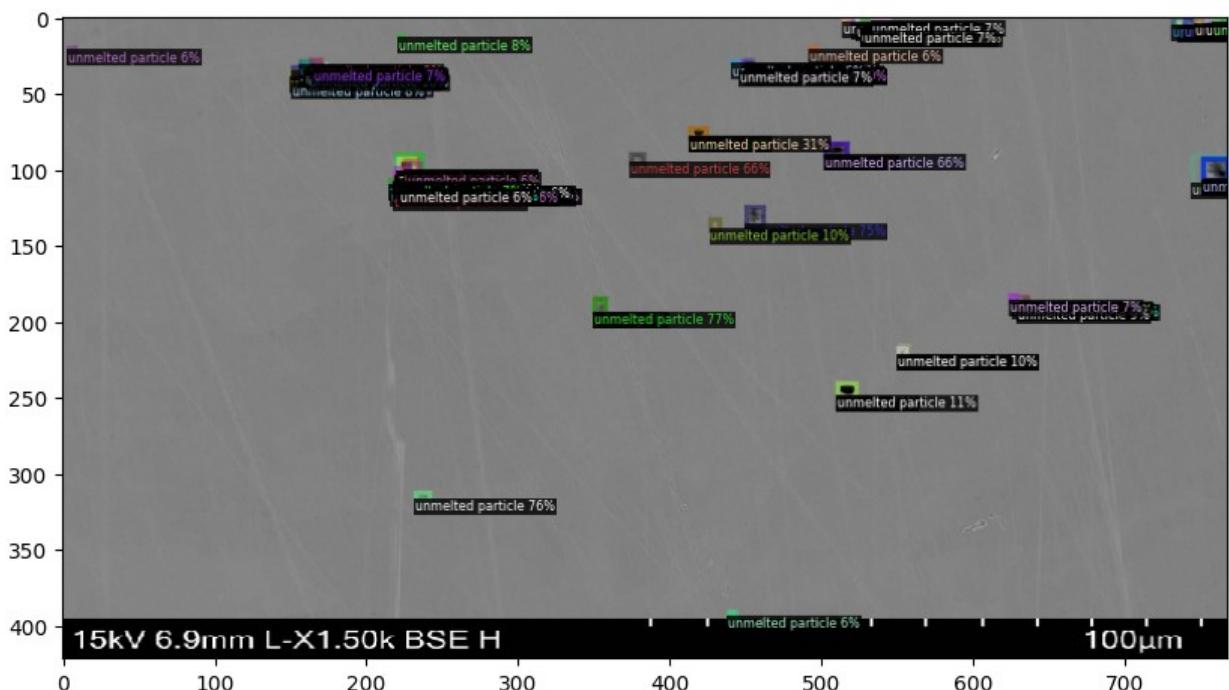


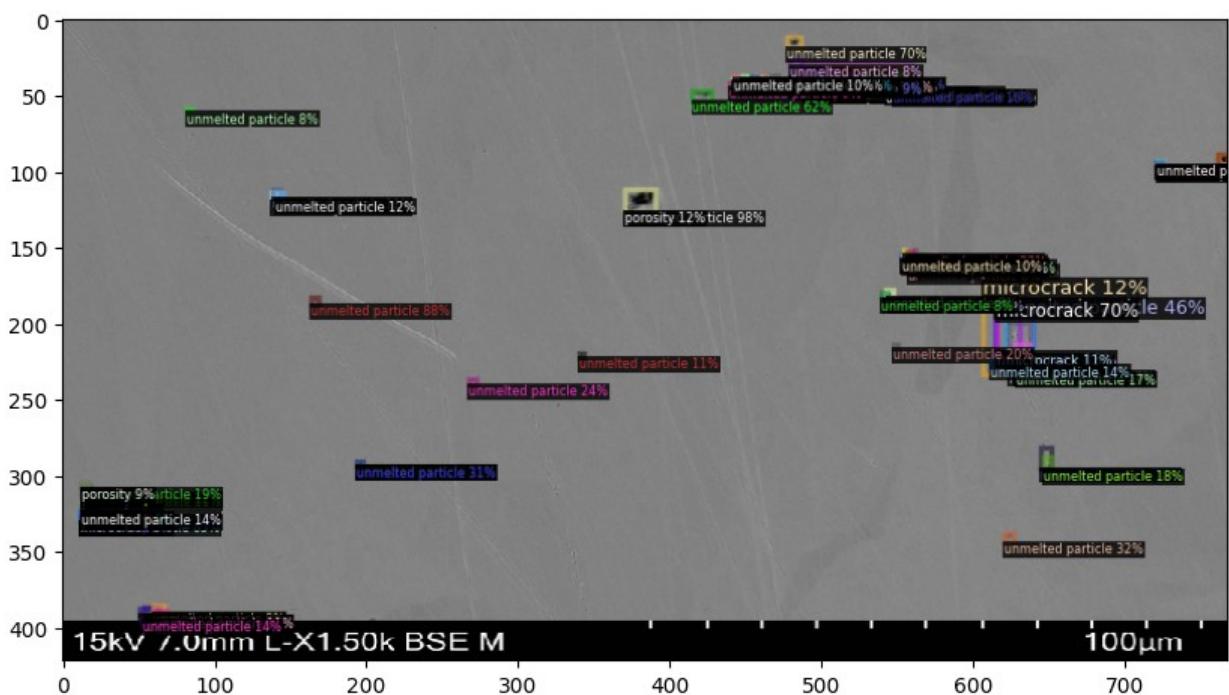
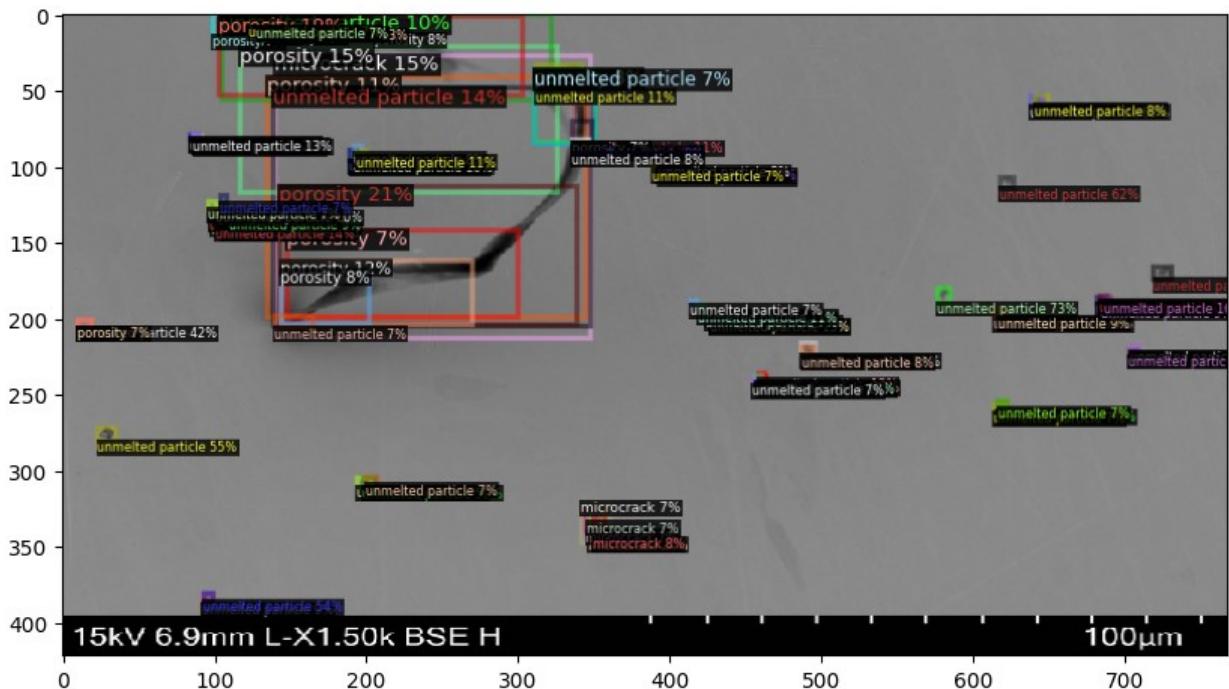
```
from detectron2.utils.visualizer import ColorMode
dataset_dicts = get_r_dicts('/content/drive/MyDrive/Mahabub/test')
for d in random.sample(dataset_dicts, 4):
    im = cv2.imread(d["file_name"])
    outputs = predictor(im)
    v = Visualizer(im[:, :, ::-1],
```

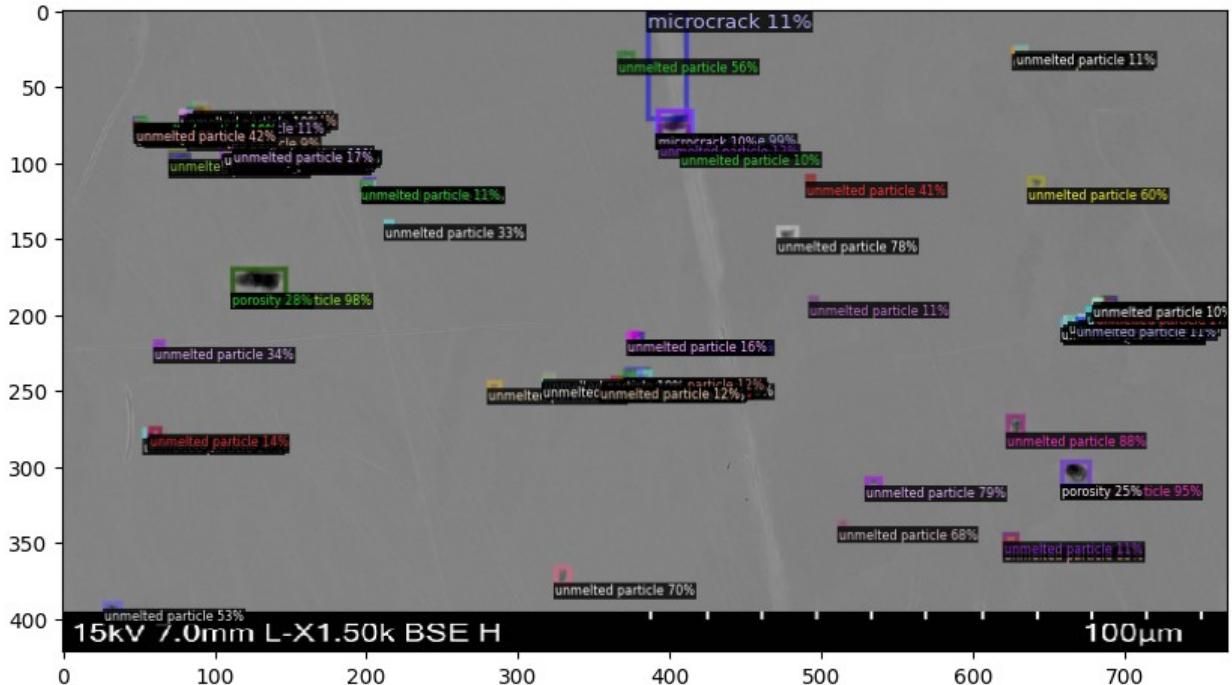
```

        metadata=r_metadata,
        scale=0.8,
        instance_mode=ColorMode.IMAGE_BW    # remove the
colors of unsegmented pixels
    )
v = v.draw_instance_predictions(outputs["instances"].to("cpu"))
plt.figure(figsize = (10, 10))
plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1],
cv2.COLOR_BGR2RGB))
plt.show()

```







```

from detectron2.evaluation import COCOEvaluator, inference_on_dataset
from detectron2.data import build_detection_test_loader
evaluator = COCOEvaluator("p_train", ['bbox'], False,
output_dir="./output/")
val_loader = build_detection_test_loader(cfg, "p_train")
print(inference_on_dataset(predictor.model, val_loader, evaluator))

[07/25 11:32:48 d2.evaluation.coco_evaluation]: Trying to convert
'p_train' to COCO format ...
[07/25 11:32:48 d2.data.datasets.coco]: Converting annotations of
dataset 'p_train' to COCO format ...
[07/25 11:32:48 d2.data.datasets.coco]: Converting dataset dicts into
COCO format
[07/25 11:32:49 d2.data.datasets.coco]: Conversion finished, #images:
42, #annotations: 715
[07/25 11:32:49 d2.data.datasets.coco]: Caching COCO format
annotations at './output/p_train_coco_format.json' ...
[07/25 11:32:49 d2.data.dataset_mapper]: [DatasetMapper] Augmentations
used in inference: [ResizeShortestEdge(short_edge_length=(800, 800),
max_size=1333, sample_style='choice')]
[07/25 11:32:49 d2.data.common]: Serializing the dataset using: <class
'detectron2.data.common._TorchSerializedList'>
[07/25 11:32:49 d2.data.common]: Serializing 42 elements to byte
tensors and concatenating them all ...
[07/25 11:32:49 d2.data.common]: Serialized dataset takes 0.16 MiB
[07/25 11:32:49 d2.evaluation.evaluator]: Start inference on 42
batches
[07/25 11:32:50 d2.evaluation.evaluator]: Inference done 11/42.

```

```
Dataloading: 0.0020 s/iter. Inference: 0.0564 s/iter. Eval: 0.0005
s/iter. Total: 0.0589 s/iter. ETA=0:00:01
[07/25 11:32:52 d2.evaluation.evaluator]: Total inference time:
0:00:02.265970 (0.061242 s / iter per device, on 1 devices)
[07/25 11:32:52 d2.evaluation.evaluator]: Total inference pure compute
time: 0:00:02 (0.055835 s / iter per device, on 1 devices)
[07/25 11:32:52 d2.evaluation.coco_evaluation]: Preparing results for
COCO format ...
[07/25 11:32:52 d2.evaluation.coco_evaluation]: Saving results to
./output/coco_instances_results.json
[07/25 11:32:52 d2.evaluation.coco_evaluation]: Evaluating predictions
with unofficial COCO API...
Loading and preparing results...
DONE (t=0.01s)
creating index...
index created!
[07/25 11:32:52 d2.evaluation.fast_eval_api]: Evaluate annotation type
*bbox*
[07/25 11:32:52 d2.evaluation.fast_eval_api]: COCOeval_opt.evaluate()
finished in 0.04 seconds.
[07/25 11:32:52 d2.evaluation.fast_eval_api]: Accumulating evaluation
results...
[07/25 11:32:52 d2.evaluation.fast_eval_api]:
COCOeval_opt.accumulate() finished in 0.02 seconds.
    Average Precision (AP) @[ IoU=0.50:0.95 | area= all |
maxDets=100 ] = 0.539
    Average Precision (AP) @[ IoU=0.50 | area= all |
maxDets=100 ] = 0.817
    Average Precision (AP) @[ IoU=0.75 | area= all |
maxDets=100 ] = 0.554
    Average Precision (AP) @[ IoU=0.50:0.95 | area= small |
maxDets=100 ] = 0.511
    Average Precision (AP) @[ IoU=0.50:0.95 | area=medium |
maxDets=100 ] = 0.923
    Average Precision (AP) @[ IoU=0.50:0.95 | area= large |
maxDets=100 ] = -1.000
    Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=
1 ] = 0.276
    Average Recall (AR) @[ IoU=0.50:0.95 | area= all | maxDets=
10 ] = 0.557
    Average Recall (AR) @[ IoU=0.50:0.95 | area= all |
maxDets=100 ] = 0.634
    Average Recall (AR) @[ IoU=0.50:0.95 | area= small |
maxDets=100 ] = 0.606
    Average Recall (AR) @[ IoU=0.50:0.95 | area=medium |
maxDets=100 ] = 0.988
    Average Recall (AR) @[ IoU=0.50:0.95 | area= large |
maxDets=100 ] = -1.000
[07/25 11:32:52 d2.evaluation.coco_evaluation]: Evaluation results for
```

```
bbox:
| AP | AP50 | AP75 | APs | APm | APl |
|-----|-----|-----|-----|-----|-----|
| 53.878 | 81.661 | 55.377 | 51.118 | 92.266 | nan |
[07/25 11:32:52 d2.evaluation.coco_evaluation]: Some metrics cannot be
computed and is shown as NaN.
[07/25 11:32:52 d2.evaluation.coco_evaluation]: Per-category bbox AP:
| category | AP | category | AP | category | AP
|-----|-----|-----|-----|-----|-----|
| unmelted particle | 45.444 | porosity | 66.404 | microcrack | 49.787 |
OrderedDict([('bbox', {'AP': 53.878198180479174, 'AP50': 81.66097785790757, 'AP75': 55.37691012964614, 'APs': 51.11774899305674, 'APm': 92.26622662266226, 'APl': nan, 'AP-unmelted particle': 45.44378159428122, 'AP-porosity': 66.40377703606681, 'AP-microcrack': 49.7870359110895}]))
```

```
!python -m pip install
'git+https://github.com/facebookresearch/detectron2.git'

Collecting git+https://github.com/facebookresearch/detectron2.git
  Cloning https://github.com/facebookresearch/detectron2.git to
/tmp/pip-req-build-oufp9jno
    Running command git clone --filter=blob:none --quiet
https://github.com/facebookresearch/detectron2.git /tmp/pip-req-build-
oufp9jno
      Resolved https://github.com/facebookresearch/detectron2.git to
commit 57bdb21249d5418c130d54e2ebdc94dda7a4c01a
      Preparing metadata (setup.py) ... ent already satisfied: Pillow>=7.1
in /usr/local/lib/python3.10/dist-packages (from detectron2==0.6)
(8.4.0)
Requirement already satisfied: matplotlib in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (3.7.1)
Requirement already satisfied: pycocotools>=2.0.2 in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.0.6)
Requirement already satisfied: termcolor>=1.1 in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.3.0)
Collecting yacs>=0.1.8 (from detectron2==0.6)
  Downloading yacs-0.1.8-py3-none-any.whl (14 kB)
Requirement already satisfied: tabulate in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (0.9.0)
Requirement already satisfied:云pickle in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.2.1)
Requirement already satisfied: tqdm>4.29.0 in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6)
(4.65.0)
Requirement already satisfied: tensorboard in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6)
(2.12.3)
Collecting fvcore<0.1.6,>=0.1.5 (from detectron2==0.6)
  Downloading fvcore-0.1.5.post20221221.tar.gz (50 kB)
  ━━━━━━━━━━━━━━━━ 50.2/50.2 kB 1.6 MB/s eta
0:00:00
  etadata (setup.py) ... detectron2==0.6)
  Downloading iopath-0.1.9-py3-none-any.whl (27 kB)
Collecting omegaconf>=2.1 (from detectron2==0.6)
  Downloading omegaconf-2.3.0-py3-none-any.whl (79 kB)
  ━━━━━━━━━━━━━━ 79.5/79.5 kB 7.7 MB/s eta
0:00:00
  detectron2==0.6)
  Downloading hydra_core-1.3.2-py3-none-any.whl (154 kB)
  ━━━━━━━━━━━━━━ 154.5/154.5 kB 9.0 MB/s eta
0:00:00
  detectron2==0.6)
  Downloading black-23.7.0-cp310-cp310-
manylinux_2_17_x86_64.manylinux2014_x86_64.whl (1.7 MB)
  ━━━━━━━━━━━━━━ 1.7/1.7 kB 25.2 MB/s eta
```

```
0:00:00
ent already satisfied: packaging in /usr/local/lib/python3.10/dist-
packages (from detectron2==0.6) (23.1)
Requirement already satisfied: numpy in
/usr/local/lib/python3.10/dist-packages (from fvcore<0.1.6,>=0.1.5-
>detectron2==0.6) (1.22.4)
Requirement already satisfied: pyyaml>=5.1 in
/usr/local/lib/python3.10/dist-packages (from fvcore<0.1.6,>=0.1.5-
>detectron2==0.6) (6.0.1)
Collecting antlr4-python3-runtime==4.9.* (from hydra-core>=1.1-
>detectron2==0.6)
  Downloading antlr4-python3-runtime-4.9.3.tar.gz (117 kB)
  ━━━━━━━━━━━━━━━━ 117.0/117.0 kB 11.7 MB/s eta
0:00:00
etadata (setup.py) ... iopath<0.1.10,>=0.1.7->detectron2==0.6)
  Downloading portalocker-2.7.0-py2.py3-none-any.whl (15 kB)
Requirement already satisfied: contourpy>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (1.1.0)
Requirement already satisfied: cycler>=0.10 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (0.11.0)
Requirement already satisfied: fonttools>=4.22.0 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (4.41.0)
Requirement already satisfied: kiwisolver>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (1.4.4)
Requirement already satisfied: pyparsing>=2.3.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (3.1.0)
Requirement already satisfied: python-dateutil>=2.7 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (2.8.2)
Requirement already satisfied: click>=8.0.0 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6)
(8.1.6)
Collecting mypy-extensions>=0.4.3 (from black->detectron2==0.6)
  Downloading mypy_extensions-1.0.0-py3-none-any.whl (4.7 kB)
Collecting pathspec>=0.9.0 (from black->detectron2==0.6)
  Downloading pathspec-0.11.1-py3-none-any.whl (29 kB)
Requirement already satisfied: platformdirs>=2 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6)
(3.9.1)
Requirement already satisfied: tomli>=1.1.0 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6)
(2.0.1)
Requirement already satisfied: absl-py>=0.4 in
/usr/local/lib/python3.10/dist-packages (from tensorflow-
```

```
>detectron2==0.6) (1.4.0)
Requirement already satisfied: grpcio>=1.48.2 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (1.56.0)
Requirement already satisfied: google-auth<3,>=1.6.3 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (2.17.3)
Requirement already satisfied: google-auth-oauthlib<1.1,>=0.5 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (1.0.0)
Requirement already satisfied: markdown>=2.6.8 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (3.4.3)
Requirement already satisfied: protobuf>=3.19.6 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (3.20.3)
Requirement already satisfied: requests<3,>=2.21.0 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (2.27.1)
Requirement already satisfied: setuptools>=41.0.0 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (67.7.2)
Requirement already satisfied: tensorboard-data-server<0.8.0,>=0.7.0
in /usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (0.7.1)
Requirement already satisfied: werkzeug>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (2.3.6)
Requirement already satisfied: wheel>=0.26 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (0.40.0)
Requirement already satisfied: cachetools<6.0,>=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (5.3.1)
Requirement already satisfied: pyasn1-modules>=0.2.1 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (0.3.0)
Requirement already satisfied: six>=1.9.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (1.16.0)
Requirement already satisfied: rsa<5,>=3.1.4 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (4.9)
Requirement already satisfied: requests-oauthlib>=0.7.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth-
oauthlib<1.1,>=0.5->tensorboard->detectron2==0.6) (1.3.1)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (1.26.16)
```

```
Requirement already satisfied: certifi>=2017.4.17 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (2023.5.7)
Requirement already satisfied: charset-normalizer~=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (2.0.12)
Requirement already satisfied: idna<4,>=2.5 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (3.4)
Requirement already satisfied: MarkupSafe>=2.1.1 in
/usr/local/lib/python3.10/dist-packages (from werkzeug>=1.0.1-
>tensorboard->detectron2==0.6) (2.1.3)
Requirement already satisfied: pyasn1<0.6.0,>=0.4.6 in
/usr/local/lib/python3.10/dist-packages (from pyasn1-modules>=0.2.1-
>google-auth<3,>=1.6.3->tensorboard->detectron2==0.6) (0.5.0)
Requirement already satisfied: oauthlib>=3.0.0 in
/usr/local/lib/python3.10/dist-packages (from requests-
oauthlib>=0.7.0->google-auth-oauthlib<1.1,>=0.5->tensorboard-
>detectron2==0.6) (3.2.2)
Building wheels for collected packages: detectron2, fvcore, antlr4-
python3-runtime
  Building wheel for detectron2 (setup.py) ... e=detectron2-0.6-cp310-
cp310-linux_x86_64.whl size=6114345
sha256=d494751ab504a11d9c75ce96f54b398bd074877e4ef215cddf2aec3f6b77400
e
    Stored in directory:
/tmp/pip-ephem-wheel-cache-zyylawtk/wheels/47/e5/15/94c80df2ba85500c5d
76599cc307c0a7079d0e221bb6fc4375
  Building wheel for fvcore (setup.py) ... e=fvcore-
0.1.5.post20221221-py3-none-any.whl size=61405
sha256=2a3513c3cfcd7e218f660a9cb3b54fee34239a9f3d39cad2198b02d0fc46ad4
d
    Stored in directory:
/root/.cache/pip/wheels/01/c0/af/77c1cf53a1be9e42a52b48e5af2169d40ec2e
89f7362489dd0
  Building wheel for antlr4-python3-runtime (setup.py) ... e:
filename=antlr4_python3_runtime-4.9.3-py3-none-any.whl size=144554
sha256=98b99414de840d9054d24fe6fcfd1cfb8382135fb3e1cce28a8ec3e0a043370c
5
    Stored in directory:
/root/.cache/pip/wheels/12/93/dd/1f6a127edc45659556564c5730f6d4e300888
f4bca2d4c5a88
Successfully built detectron2 fvcore antlr4-python3-runtime
Installing collected packages: antlr4-python3-runtime, yacs,
portalocker, pathspec, omegaconf, mypy-extensions, iopath, hydra-core,
black, fvcore, detectron2
Successfully installed antlr4-python3-runtime-4.9.3 black-23.7.0
detectron2-0.6 fvcore-0.1.5.post20221221 hydra-core-1.3.2 iopath-0.1.9
```

```
mypy-extensions-1.0.0 omegaconf-2.3.0 pathspec-0.11.1 portalocker-  
2.7.0 yacs-0.1.8  
!python -m pip install pyyaml==5.1  
Collecting pyyaml==5.1  
  Downloading PyYAML-5.1.tar.gz (274 kB) 274.2/274.2 kB 2.8 MB/s eta  
0:00:00  
  etadata (setup.py) ... l  
    Building wheel for pyyaml (setup.py) ... l: filename=PyYAML-5.1-  
cp310-cp310-linux_x86_64.whl size=44090  
sha256=6b30f9b51c8986e81f24dc650e04dbd61811fefb10fc876ba2e0c39f2dd1f4d  
e  
    Stored in directory:  
/root/.cache/pip/wheels/70/83/31/975b737609aba39a4099d471d5684141c1fdc  
3404f97e7f68a  
Successfully built pyyaml  
Installing collected packages: pyyaml  
  Attempting uninstall: pyyaml  
    Found existing installation: PyYAML 6.0.1  
    Uninstalling PyYAML-6.0.1:  
      Successfully uninstalled PyYAML-6.0.1  
ERROR: pip's dependency resolver does not currently take into account  
all the packages that are installed. This behaviour is the source of  
the following dependency conflicts.  
dask 2022.12.1 requires pyyaml>=5.3.1, but you have pyyaml 5.1 which  
is incompatible.  
flax 0.7.0 requires PyYAML>=5.4.1, but you have pyyaml 5.1 which is  
incompatible.  
Successfully installed pyyaml-5.1  
  
import torch, detectron2  
!nvcc --version  
TORCH_VERSION = ".".join(torch.__version__.split(".")[:2])  
CUDA_VERSION = torch.__version__.split("+")[-1]  
print("torch: ", TORCH_VERSION, "; cuda: ", CUDA_VERSION)  
print("detectron2:", detectron2.__version__)  
  
nvcc: NVIDIA (R) Cuda compiler driver  
Copyright (c) 2005-2022 NVIDIA Corporation  
Built on Wed_Sep_21_10:33:58_PDT_2022  
Cuda compilation tools, release 11.8, V11.8.89  
Build cuda_11.8.r11.8/compiler.31833905_0  
torch: 2.0 ; cuda: cu118  
detectron2: 0.6  
  
import detectron2  
from detectron2.utils.logger import setup_logger  
setup_logger()
```

```

# import some common libraries
import numpy as np
import cv2
import matplotlib.pyplot as plt

# import some common detectron2 utilities
from detectron2 import model_zoo
from detectron2.engine import DefaultPredictor
from detectron2.config import get_cfg
from detectron2.utils.visualizer import Visualizer
from detectron2.data import MetadataCatalog, DatasetCatalog

from google.colab import drive
drive.mount('/content/drive')

Mounted at /content/drive

!ls '/content/drive/MyDrive/Mahabub'

average_areas.txt  crack_info.txt  test  train

import os
import numpy as np
import json
from detectron2.structures import BoxMode

def get_r_dicts(directory):

    classes = ['unmelted particle', 'porosity', 'microcrack']
    dataset_dicts = []
    for idx, filename in enumerate([file for file in
os.listdir(directory) if file.endswith('.json')]):
        json_file = os.path.join(directory, filename)
        with open(json_file) as f:
            img_anno = json.load(f)

        record = {}

        filename = os.path.join(directory, img_anno["imagePath"])

        record["file_name"] = filename
        record["image_id"] = idx
        record["height"] = 528
        record["width"] = 960

        annos = img_anno["shapes"]
        objs = []
        for anno in annos:
            px = [a[0] for a in anno['points']]
            py = [a[1] for a in anno['points']]

```

```

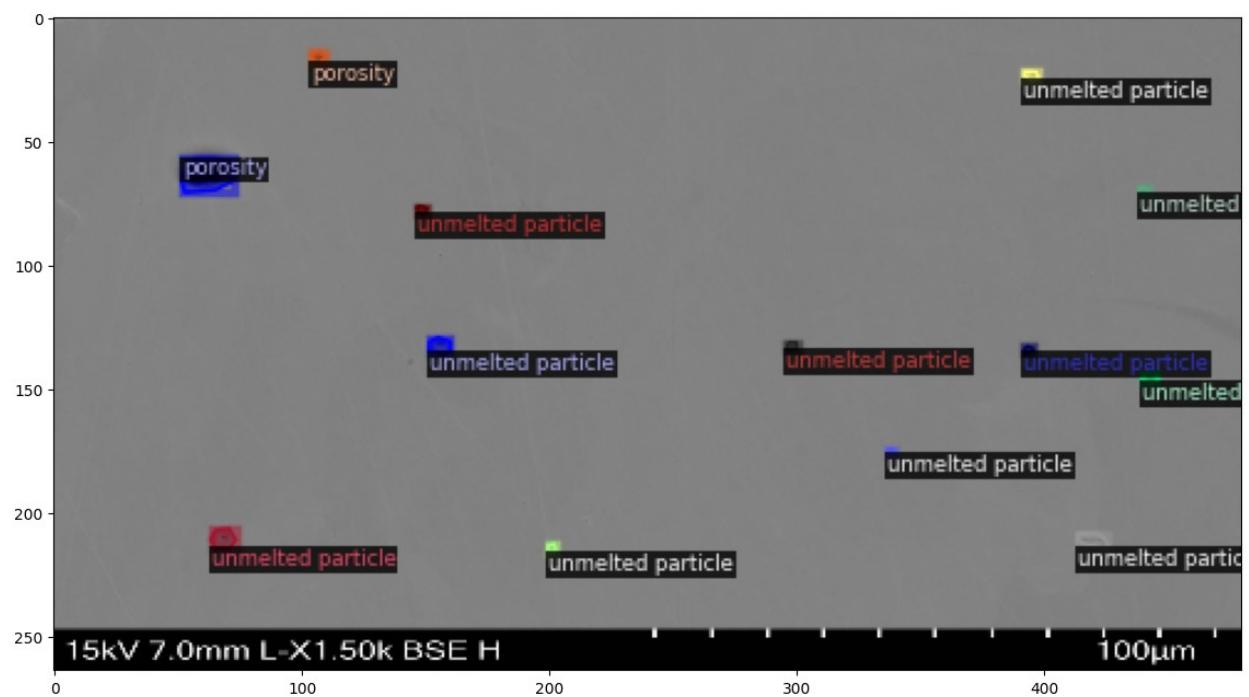
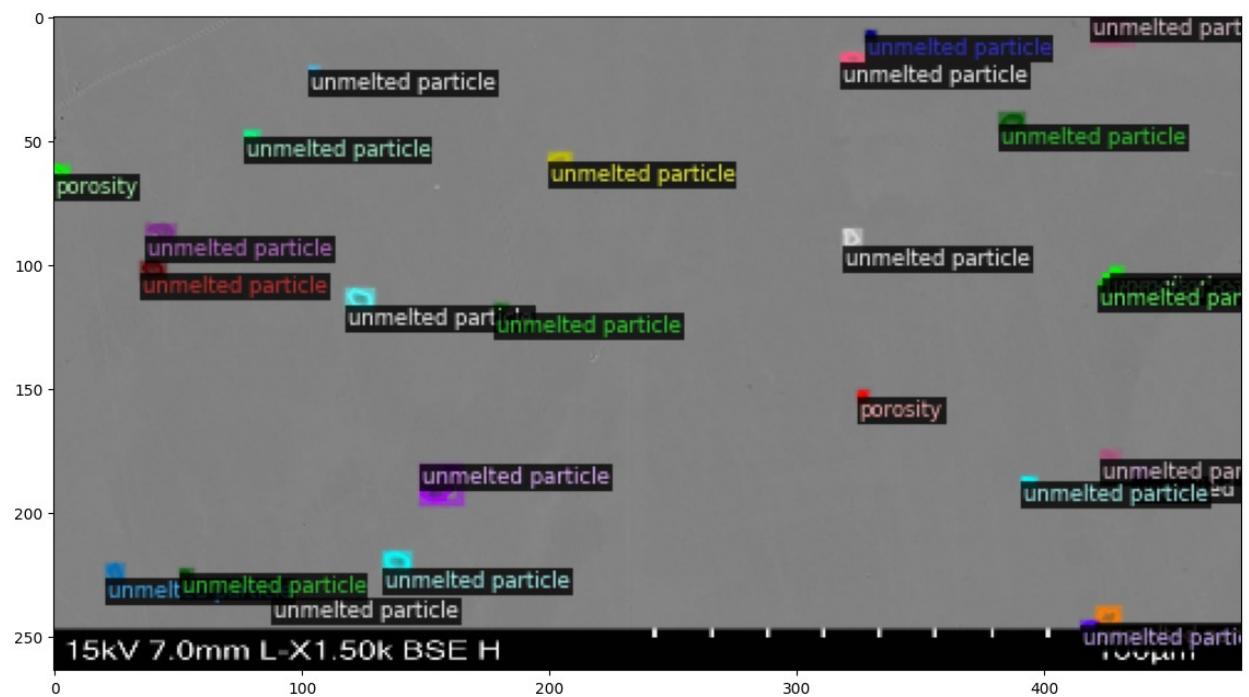
        poly = [(x, y) for x, y in zip(px, py)]
        poly = [p for x in poly for p in x]
        obj = {
            "bbox": [np.min(px), np.min(py), np.max(px),
np.max(py)],
            "bbox_mode": BoxMode.XYXY_ABS,
            "segmentation": [poly],
            "category_id": classes.index(anno['label']),
            "iscrowd": 0
        }
        objs.append(obj)
    record["annotations"] = objs
    dataset_dicts.append(record)
return dataset_dicts

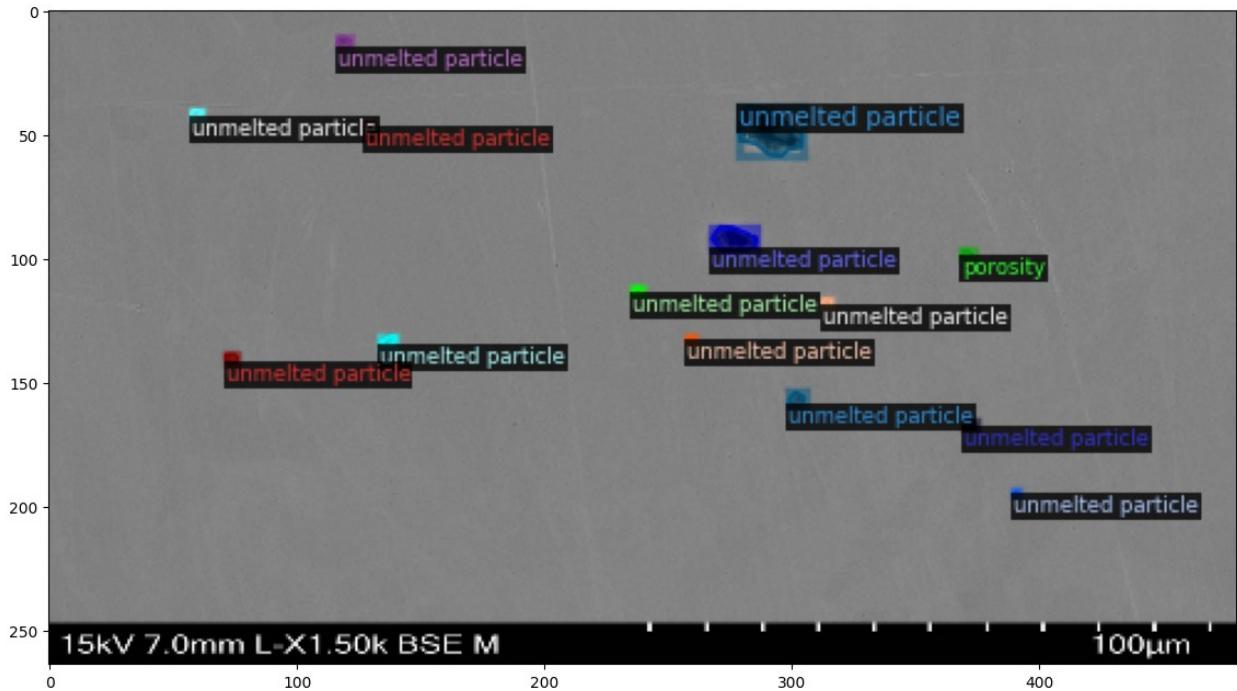
from detectron2.data import DatasetCatalog, MetadataCatalog
for d in ["train", "test"]:
    DatasetCatalog.register("p_" + d, lambda d=d:
get_r_dicts('/content/drive/MyDrive/Mahabub/' + d))
    MetadataCatalog.get("p_" + d).set(thing_classes=['unmelted
particle', 'porosity', 'microcrack'])
r_metadata = MetadataCatalog.get("p_train")

import random

dataset_dicts = get_r_dicts("/content/drive/MyDrive/Mahabub/train")
for d in random.sample(dataset_dicts, 3):
    img = cv2.imread(d["file_name"])
    v = Visualizer(img[:, :, ::-1], metadata=r_metadata, scale=0.5)
    v = v.draw_dataset_dict(d)
    plt.figure(figsize = (14, 10))
    plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1],
cv2.COLOR_BGR2RGB))
    plt.show()

```





```
DatasetCatalog.remove("p_train")
#DatasetCatalog.remove("p_test")

from detectron2.engine import DefaultTrainer
from detectron2.config import get_cfg
from detectron2.model_zoo import model_zoo

cfg = get_cfg()
cfg.merge_from_file(model_zoo.get_config_file("COCO-Detection/retinanet_R_101_FPN_3x.yaml"))
cfg.DATASETS.TRAIN = ("p_train",)
cfg.DATASETS.TEST = ()
cfg.DATA_LOADER.NUM_WORKERS = 2
cfg.MODEL.WEIGHTS =
    model_zoo.get_checkpoint_url("COCO-Detection/retinanet_R_101_FPN_3x.yaml")
cfg.SOLVER.IMS_PER_BATCH = 2
cfg.SOLVER.BASE_LR = 0.00025
cfg.SOLVER.MAX_ITER = 10000
cfg.SOLVER.STEPS = []          # do not decay learning rate
cfg.MODEL.RETINANET.NUM_CLASSES = 3

os.makedirs(cfg.OUTPUT_DIR, exist_ok=True)
trainer = DefaultTrainer(cfg)
trainer.resume_or_load(resume=False)
trainer.train()

WARNING:fvcore.common.config:Loading config
/usr/local/lib/python3.10/dist-packages/detectron2/model_zoo/configs/
```

```
COCO-Detection/..../Base-RetinaNet.yaml with yaml.unsafe_load. Your  
machine may be at risk if the file contains malicious content.
```

```
[07/24 22:04:46 d2.engine.defaults]: Model:  
RetinaNet(  
    (backbone): FPN(  
        (fpn_lateral3): Conv2d(512, 256, kernel_size=(1, 1), stride=(1,  
1))  
        (fpn_output3): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),  
padding=(1, 1))  
        (fpn_lateral4): Conv2d(1024, 256, kernel_size=(1, 1), stride=(1,  
1))  
        (fpn_output4): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),  
padding=(1, 1))  
        (fpn_lateral5): Conv2d(2048, 256, kernel_size=(1, 1), stride=(1,  
1))  
        (fpn_output5): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),  
padding=(1, 1))  
        (top_block): LastLevelP6P7(  
            (p6): Conv2d(2048, 256, kernel_size=(3, 3), stride=(2, 2),  
padding=(1, 1))  
            (p7): Conv2d(256, 256, kernel_size=(3, 3), stride=(2, 2),  
padding=(1, 1))  
        )  
        (bottom_up): ResNet(  
            (stem): BasicStem(  
                (conv1): Conv2d(  
                    3, 64, kernel_size=(7, 7), stride=(2, 2), padding=(3, 3),  
bias=False  
                    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
                )  
            )  
            (res2): Sequential(  
                (0): BottleneckBlock(  
                    (shortcut): Conv2d(  
                        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
                        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
                    )  
                    (conv1): Conv2d(  
                        64, 64, kernel_size=(1, 1), stride=(1, 1), bias=False  
                        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
                    )  
                    (conv2): Conv2d(  
                        64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),  
bias=False  
                        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
                    )  
                    (conv3): Conv2d(  
                        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
                        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
```

```
        )
    )
(1): BottleneckBlock(
    (conv1): Conv2d(
        256, 64, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
    )
    (conv2): Conv2d(
        64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
    )
    (conv3): Conv2d(
        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        256, 64, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
    )
    (conv2): Conv2d(
        64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
    )
    (conv3): Conv2d(
        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
)
)
(res3): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            256, 512, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
        (conv1): Conv2d(
            256, 128, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
        (conv2): Conv2d(
            128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
        (conv3): Conv2d(
```

```
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
(1): BottleneckBlock(
    (conv1): Conv2d(
        512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv2): Conv2d(
        128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv3): Conv2d(
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv2): Conv2d(
        128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv3): Conv2d(
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
(3): BottleneckBlock(
    (conv1): Conv2d(
        512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv2): Conv2d(
        128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv3): Conv2d(
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
```

```
)  
(res4): Sequential(  
    (0): BottleneckBlock(  
        (shortcut): Conv2d(  
            512, 1024, kernel_size=(1, 1), stride=(2, 2), bias=False  
            (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)  
        )  
        (conv1): Conv2d(  
            512, 256, kernel_size=(1, 1), stride=(2, 2), bias=False  
            (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
        )  
        (conv2): Conv2d(  
            256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,  
1), bias=False  
            (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
        )  
        (conv3): Conv2d(  
            256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False  
            (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)  
        )  
    )  
    (1): BottleneckBlock(  
        (conv1): Conv2d(  
            1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
            (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
        )  
        (conv2): Conv2d(  
            256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,  
1), bias=False  
            (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
        )  
        (conv3): Conv2d(  
            256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False  
            (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)  
        )  
    )  
    (2): BottleneckBlock(  
        (conv1): Conv2d(  
            1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
            (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
        )  
        (conv2): Conv2d(  
            256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,  
1), bias=False  
            (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
        )  
        (conv3): Conv2d(  
            256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False  
            (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)  
        )  
    )  
)
```

```
        )
    )
(3): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(4): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(5): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(6): BottleneckBlock(
    (conv1): Conv2d(
```

```
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(7): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(8): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(9): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
```

```
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
            (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
        )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(10): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(11): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(12): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
)
```

```
(conv3): Conv2d(
    256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
)
)
(13): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
)
(14): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
)
(15): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
```

```
)  
(16): BottleneckBlock(  
    (conv1): Conv2d(  
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
    )  
    (conv2): Conv2d(  
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,  
1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
    )  
    (conv3): Conv2d(  
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)  
    )  
)  
(17): BottleneckBlock(  
    (conv1): Conv2d(  
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
    )  
    (conv2): Conv2d(  
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,  
1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
    )  
    (conv3): Conv2d(  
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)  
    )  
)  
(18): BottleneckBlock(  
    (conv1): Conv2d(  
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
    )  
    (conv2): Conv2d(  
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,  
1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
    )  
    (conv3): Conv2d(  
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)  
    )  
)  
(19): BottleneckBlock(  
    (conv1): Conv2d(  
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
```

```
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(20): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(21): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(22): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
```

```
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(res5): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            1024, 2048, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
        )
        (conv1): Conv2d(
            1024, 512, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
        (conv2): Conv2d(
            512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
        (conv3): Conv2d(
            512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
        )
    )
    (1): BottleneckBlock(
        (conv1): Conv2d(
            2048, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
        (conv2): Conv2d(
            512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
        (conv3): Conv2d(
            512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
        )
    )
    (2): BottleneckBlock(
        (conv1): Conv2d(
            2048, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
        (conv2): Conv2d(
```

```
        512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
        (conv3): Conv2d(
            512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
        )
    )
)
(head): RetinaNetHead(
    (cls_subnet): Sequential(
        (0): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (1): ReLU()
        (2): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (3): ReLU()
        (4): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (5): ReLU()
        (6): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (7): ReLU()
    )
    (bbox_subnet): Sequential(
        (0): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (1): ReLU()
        (2): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (3): ReLU()
        (4): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (5): ReLU()
        (6): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (7): ReLU()
    )
    (cls_score): Conv2d(256, 27, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
    (bbox_pred): Conv2d(256, 36, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
)
(anchor_generator): DefaultAnchorGenerator(
    (cell_anchors): BufferList()
)
```

```
)  
[07/24 22:04:46 d2.data.build]: Removed 0 images with no usable  
annotations. 42 images left.  
[07/24 22:04:46 d2.data.build]: Distribution of instances among all 3  
categories:  


| category      | #instances | category | #instances | category |
|---------------|------------|----------|------------|----------|
| #instances    |            |          |            |          |
| unmelted pa.. | 639        | porosity | 67         |          |
| microcrack    | 9          |          |            |          |
| total         | 715        |          |            |          |

  
[07/24 22:04:46 d2.data.dataset_mapper]: [DatasetMapper] Augmentations  
used in training: [ResizeShortestEdge(short_edge_length=(640, 672,  
704, 736, 768, 800), max_size=1333, sample_style='choice'),  
RandomFlip())]  
[07/24 22:04:46 d2.data.build]: Using training sampler TrainingSampler  
[07/24 22:04:46 d2.data.common]: Serializing the dataset using: <class  
'detectron2.data.common._TorchSerializedList'>  
[07/24 22:04:46 d2.data.common]: Serializing 42 elements to byte  
tensors and concatenating them all ...  
[07/24 22:04:46 d2.data.common]: Serialized dataset takes 0.16 MiB  
[07/24 22:04:46 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-Detection/retinanet\_R\_101\_FPN\_3x/190397697/model\_final\_971ab9.pkl ...  
  
model_final_971ab9.pkl: 228MB [00:01, 190MB/s]  
  
WARNING:fvcore.common.checkpoint:Skip loading parameter  
'head.cls_score.weight' to the model due to incompatible shapes: (720,  
256, 3, 3) in the checkpoint but (27, 256, 3, 3) in the model! You  
might want to double check if this is expected.  
WARNING:fvcore.common.checkpoint:Skip loading parameter  
'head.cls_score.bias' to the model due to incompatible shapes: (720,)  
in the checkpoint but (27,) in the model! You might want to double  
check if this is expected.  
WARNING:fvcore.common.checkpoint:Some model parameters or buffers are  
not found in the checkpoint:  
head.cls_score.{bias, weight}  
WARNING:fvcore.common.checkpoint:The checkpoint state_dict contains  
keys that are not used by the model:  
    pixel_mean  
    pixel_std  
  
[07/24 22:04:48 d2.engine.train_loop]: Starting training from  
iteration 0
```

```
/usr/local/lib/python3.10/dist-packages/torch/functional.py:504:  
UserWarning: torch.meshgrid: in an upcoming release, it will be  
required to pass the indexing argument. (Triggered internally at  
./aten/src/ATen/native/TensorShape.cpp:3483.)  
    return _VF.meshgrid(tensors, **kwargs) # type: ignore[attr-defined]  
  
[07/24 22:05:03 d2.utils.events]: eta: 0:51:35 iter: 19 total_loss:  
2.155 loss_cls: 1.565 loss_box_reg: 0.5554 time: 0.5756  
last_time: 0.3493 data_time: 0.0640 last_data_time: 0.0484 lr:  
4.9953e-06 max_mem: 2827M  
[07/24 22:05:12 d2.utils.events]: eta: 0:51:44 iter: 39 total_loss:  
1.547 loss_cls: 1.096 loss_box_reg: 0.3994 time: 0.4429  
last_time: 0.3088 data_time: 0.0136 last_data_time: 0.0064 lr:  
9.9902e-06 max_mem: 2903M  
[07/24 22:05:18 d2.utils.events]: eta: 0:49:17 iter: 59 total_loss:  
1.283 loss_cls: 0.8905 loss_box_reg: 0.3381 time: 0.3810  
last_time: 0.2464 data_time: 0.0093 last_data_time: 0.0057 lr:  
1.4985e-05 max_mem: 2911M  
[07/24 22:05:24 d2.utils.events]: eta: 0:49:21 iter: 79 total_loss:  
1.169 loss_cls: 0.8367 loss_box_reg: 0.3421 time: 0.3649  
last_time: 0.3035 data_time: 0.0124 last_data_time: 0.0065 lr:  
1.998e-05 max_mem: 2911M  
[07/24 22:05:31 d2.utils.events]: eta: 0:50:05 iter: 99 total_loss:  
1.049 loss_cls: 0.7352 loss_box_reg: 0.363 time: 0.3577  
last_time: 0.3185 data_time: 0.0146 last_data_time: 0.0099 lr:  
2.4975e-05 max_mem: 2911M  
[07/24 22:05:36 d2.utils.events]: eta: 0:49:09 iter: 119  
total_loss: 0.9055 loss_cls: 0.5445 loss_box_reg: 0.3544 time:  
0.3423 last_time: 0.3120 data_time: 0.0093 last_data_time: 0.0195  
lr: 2.997e-05 max_mem: 2911M  
[07/24 22:05:42 d2.utils.events]: eta: 0:49:15 iter: 139  
total_loss: 0.9003 loss_cls: 0.5231 loss_box_reg: 0.3479 time:  
0.3385 last_time: 0.2901 data_time: 0.0169 last_data_time: 0.0155  
lr: 3.4965e-05 max_mem: 2912M  
[07/24 22:05:48 d2.utils.events]: eta: 0:48:47 iter: 159  
total_loss: 0.9662 loss_cls: 0.5109 loss_box_reg: 0.3953 time:  
0.3300 last_time: 0.2475 data_time: 0.0082 last_data_time: 0.0094  
lr: 3.996e-05 max_mem: 2917M  
[07/24 22:05:53 d2.utils.events]: eta: 0:48:23 iter: 179  
total_loss: 0.7953 loss_cls: 0.4462 loss_box_reg: 0.3481 time:  
0.3242 last_time: 0.3185 data_time: 0.0113 last_data_time: 0.0256  
lr: 4.4955e-05 max_mem: 2917M  
[07/24 22:05:59 d2.utils.events]: eta: 0:48:14 iter: 199  
total_loss: 0.8697 loss_cls: 0.5104 loss_box_reg: 0.3488 time:  
0.3221 last_time: 0.2440 data_time: 0.0084 last_data_time: 0.0082  
lr: 4.995e-05 max_mem: 2917M  
[07/24 22:06:05 d2.utils.events]: eta: 0:47:23 iter: 219  
total_loss: 0.6941 loss_cls: 0.3949 loss_box_reg: 0.3134 time:  
0.3171 last_time: 0.2573 data_time: 0.0090 last_data_time: 0.0182  
lr: 5.4945e-05 max_mem: 2917M
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[07/24 22:06:11 d2.utils.events]: eta: 0:48:05 iter: 239
total_loss: 0.8603 loss_cls: 0.5072 loss_box_reg: 0.3602 time:
0.3177 last_time: 0.4068 data_time: 0.0123 last_data_time: 0.0305
lr: 5.994e-05 max_mem: 2917M
[07/24 22:06:17 d2.utils.events]: eta: 0:47:45 iter: 259
total_loss: 0.7006 loss_cls: 0.3899 loss_box_reg: 0.315 time:
0.3148 last_time: 0.3130 data_time: 0.0110 last_data_time: 0.0077
lr: 6.4935e-05 max_mem: 2917M
[07/24 22:06:22 d2.utils.events]: eta: 0:46:56 iter: 279
total_loss: 0.7431 loss_cls: 0.3758 loss_box_reg: 0.3612 time:
0.3109 last_time: 0.2600 data_time: 0.0087 last_data_time: 0.0060
lr: 6.993e-05 max_mem: 2917M
[07/24 22:06:28 d2.utils.events]: eta: 0:46:55 iter: 299
total_loss: 0.7572 loss_cls: 0.3591 loss_box_reg: 0.3595 time:
0.3113 last_time: 0.3000 data_time: 0.0211 last_data_time: 0.0081
lr: 7.4925e-05 max_mem: 2917M
[07/24 22:06:34 d2.utils.events]: eta: 0:46:34 iter: 319
total_loss: 0.6518 loss_cls: 0.3271 loss_box_reg: 0.3095 time:
0.3081 last_time: 0.2536 data_time: 0.0096 last_data_time: 0.0068
lr: 7.992e-05 max_mem: 2917M
[07/24 22:06:40 d2.utils.events]: eta: 0:46:35 iter: 339
total_loss: 0.6673 loss_cls: 0.35 loss_box_reg: 0.3392 time:
0.3082 last_time: 0.3245 data_time: 0.0136 last_data_time: 0.0285
lr: 8.4915e-05 max_mem: 2917M
[07/24 22:06:46 d2.utils.events]: eta: 0:46:27 iter: 359
total_loss: 0.5822 loss_cls: 0.283 loss_box_reg: 0.2988 time:
0.3074 last_time: 0.3166 data_time: 0.0100 last_data_time: 0.0067
lr: 8.991e-05 max_mem: 2917M
[07/24 22:06:51 d2.utils.events]: eta: 0:46:14 iter: 379
total_loss: 0.6245 loss_cls: 0.3143 loss_box_reg: 0.3216 time:
0.3051 last_time: 0.2151 data_time: 0.0085 last_data_time: 0.0092
lr: 9.4905e-05 max_mem: 2917M
[07/24 22:06:57 d2.utils.events]: eta: 0:46:08 iter: 399
total_loss: 0.6216 loss_cls: 0.2806 loss_box_reg: 0.2958 time:
0.3050 last_time: 0.2440 data_time: 0.0149 last_data_time: 0.0082
lr: 9.99e-05 max_mem: 2925M
[07/24 22:07:03 d2.utils.events]: eta: 0:45:45 iter: 419
total_loss: 0.5962 loss_cls: 0.2812 loss_box_reg: 0.2954 time:
0.3033 last_time: 0.2603 data_time: 0.0111 last_data_time: 0.0068
lr: 0.0001049 max_mem: 2925M
[07/24 22:07:08 d2.utils.events]: eta: 0:45:41 iter: 439
total_loss: 0.5976 loss_cls: 0.287 loss_box_reg: 0.3057 time:
0.3029 last_time: 0.3857 data_time: 0.0117 last_data_time: 0.0060
lr: 0.00010989 max_mem: 2925M
[07/24 22:07:14 d2.utils.events]: eta: 0:45:30 iter: 459
total_loss: 0.5676 loss_cls: 0.2678 loss_box_reg: 0.2887 time:
0.3017 last_time: 0.2104 data_time: 0.0124 last_data_time: 0.0065
lr: 0.00011489 max_mem: 2925M
[07/24 22:07:19 d2.utils.events]: eta: 0:45:09 iter: 479
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total_loss: 0.6186 loss_cls: 0.2827 loss_box_reg: 0.3381 time:  
0.3003 last_time: 0.2892 data_time: 0.0075 last_data_time: 0.0073  
lr: 0.00011988 max_mem: 2925M  
[07/24 22:07:26 d2.utils.events]: eta: 0:45:24 iter: 499  
total_loss: 0.5468 loss_cls: 0.2622 loss_box_reg: 0.2808 time:  
0.3011 last_time: 0.3113 data_time: 0.0172 last_data_time: 0.0083  
lr: 0.00012488 max_mem: 2925M  
[07/24 22:07:31 d2.utils.events]: eta: 0:44:57 iter: 519  
total_loss: 0.5792 loss_cls: 0.2561 loss_box_reg: 0.2947 time:  
0.2994 last_time: 0.2092 data_time: 0.0075 last_data_time: 0.0063  
lr: 0.00012987 max_mem: 2925M  
[07/24 22:07:37 d2.utils.events]: eta: 0:44:48 iter: 539  
total_loss: 0.5142 loss_cls: 0.2415 loss_box_reg: 0.2816 time:  
0.2989 last_time: 0.4340 data_time: 0.0077 last_data_time: 0.0076  
lr: 0.00013487 max_mem: 2925M  
[07/24 22:07:43 d2.utils.events]: eta: 0:44:46 iter: 559  
total_loss: 0.5209 loss_cls: 0.2386 loss_box_reg: 0.2639 time:  
0.2996 last_time: 0.2449 data_time: 0.0141 last_data_time: 0.0085  
lr: 0.00013986 max_mem: 2925M  
[07/24 22:07:48 d2.utils.events]: eta: 0:44:19 iter: 579  
total_loss: 0.5955 loss_cls: 0.2694 loss_box_reg: 0.3105 time:  
0.2984 last_time: 0.2489 data_time: 0.0090 last_data_time: 0.0157  
lr: 0.00014486 max_mem: 2925M  
[07/24 22:07:55 d2.utils.events]: eta: 0:44:14 iter: 599  
total_loss: 0.529 loss_cls: 0.2332 loss_box_reg: 0.2996 time:  
0.2988 last_time: 0.3169 data_time: 0.0142 last_data_time: 0.0314  
lr: 0.00014985 max_mem: 2925M  
[07/24 22:08:01 d2.utils.events]: eta: 0:44:36 iter: 619  
total_loss: 0.5238 loss_cls: 0.2232 loss_box_reg: 0.2802 time:  
0.2990 last_time: 0.3226 data_time: 0.0167 last_data_time: 0.0313  
lr: 0.00015485 max_mem: 2925M  
[07/24 22:08:07 d2.utils.events]: eta: 0:44:38 iter: 639  
total_loss: 0.5573 loss_cls: 0.2335 loss_box_reg: 0.286 time:  
0.2991 last_time: 0.3917 data_time: 0.0124 last_data_time: 0.0062  
lr: 0.00015984 max_mem: 2925M  
[07/24 22:08:13 d2.utils.events]: eta: 0:44:28 iter: 659  
total_loss: 0.46 loss_cls: 0.1948 loss_box_reg: 0.2652 time:  
0.2991 last_time: 0.2475 data_time: 0.0115 last_data_time: 0.0052  
lr: 0.00016484 max_mem: 2925M  
[07/24 22:08:18 d2.utils.events]: eta: 0:44:01 iter: 679  
total_loss: 0.5275 loss_cls: 0.2261 loss_box_reg: 0.2747 time:  
0.2979 last_time: 0.2017 data_time: 0.0084 last_data_time: 0.0068  
lr: 0.00016983 max_mem: 2925M  
[07/24 22:08:25 d2.utils.events]: eta: 0:44:25 iter: 699  
total_loss: 0.4687 loss_cls: 0.2086 loss_box_reg: 0.2722 time:  
0.2989 last_time: 0.4149 data_time: 0.0135 last_data_time: 0.0176  
lr: 0.00017483 max_mem: 2925M  
[07/24 22:08:30 d2.utils.events]: eta: 0:44:15 iter: 719  
total_loss: 0.4835 loss_cls: 0.2047 loss_box_reg: 0.269 time:
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0.2983 last_time: 0.2333 data_time: 0.0095 last_data_time: 0.0074
lr: 0.00017982 max_mem: 2925M
[07/24 22:08:36 d2.utils.events]: eta: 0:44:10 iter: 739
total_loss: 0.5106 loss_cls: 0.2123 loss_box_reg: 0.2948 time:
0.2983 last_time: 0.3362 data_time: 0.0120 last_data_time: 0.0223
lr: 0.00018482 max_mem: 2925M
[07/24 22:08:42 d2.utils.events]: eta: 0:44:08 iter: 759
total_loss: 0.4667 loss_cls: 0.2089 loss_box_reg: 0.2562 time:
0.2987 last_time: 0.2578 data_time: 0.0102 last_data_time: 0.0122
lr: 0.00018981 max_mem: 2925M
[07/24 22:08:48 d2.utils.events]: eta: 0:43:56 iter: 779
total_loss: 0.5231 loss_cls: 0.2045 loss_box_reg: 0.2863 time:
0.2976 last_time: 0.2464 data_time: 0.0104 last_data_time: 0.0086
lr: 0.00019481 max_mem: 2925M
[07/24 22:08:54 d2.utils.events]: eta: 0:43:53 iter: 799
total_loss: 0.4645 loss_cls: 0.1964 loss_box_reg: 0.2703 time:
0.2983 last_time: 0.4119 data_time: 0.0146 last_data_time: 0.0238
lr: 0.0001998 max_mem: 2925M
[07/24 22:09:00 d2.utils.events]: eta: 0:43:36 iter: 819
total_loss: 0.4786 loss_cls: 0.1926 loss_box_reg: 0.2755 time:
0.2977 last_time: 0.2252 data_time: 0.0084 last_data_time: 0.0170
lr: 0.0002048 max_mem: 2925M
[07/24 22:09:05 d2.utils.events]: eta: 0:43:32 iter: 839
total_loss: 0.4242 loss_cls: 0.1881 loss_box_reg: 0.2379 time:
0.2973 last_time: 0.2534 data_time: 0.0079 last_data_time: 0.0092
lr: 0.00020979 max_mem: 2925M
[07/24 22:09:11 d2.utils.events]: eta: 0:43:34 iter: 859
total_loss: 0.473 loss_cls: 0.1888 loss_box_reg: 0.2748 time:
0.2973 last_time: 0.2517 data_time: 0.0140 last_data_time: 0.0085
lr: 0.00021479 max_mem: 2925M
[07/24 22:09:17 d2.utils.events]: eta: 0:43:20 iter: 879
total_loss: 0.4232 loss_cls: 0.1641 loss_box_reg: 0.2468 time:
0.2967 last_time: 0.3110 data_time: 0.0096 last_data_time: 0.0084
lr: 0.00021978 max_mem: 2925M
[07/24 22:09:23 d2.utils.events]: eta: 0:43:19 iter: 899
total_loss: 0.4382 loss_cls: 0.1715 loss_box_reg: 0.257 time:
0.2971 last_time: 0.4308 data_time: 0.0147 last_data_time: 0.0317
lr: 0.00022478 max_mem: 2925M
[07/24 22:09:29 d2.utils.events]: eta: 0:43:16 iter: 919
total_loss: 0.4357 loss_cls: 0.1761 loss_box_reg: 0.2741 time:
0.2968 last_time: 0.2154 data_time: 0.0090 last_data_time: 0.0056
lr: 0.00022977 max_mem: 2925M
[07/24 22:09:34 d2.utils.events]: eta: 0:43:02 iter: 939
total_loss: 0.3884 loss_cls: 0.1581 loss_box_reg: 0.235 time:
0.2960 last_time: 0.2464 data_time: 0.0088 last_data_time: 0.0081
lr: 0.00023477 max_mem: 2925M
[07/24 22:09:40 d2.utils.events]: eta: 0:43:02 iter: 959
total_loss: 0.3988 loss_cls: 0.1576 loss_box_reg: 0.2513 time:
0.2965 last_time: 0.2546 data_time: 0.0169 last_data_time: 0.0144
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lr: 0.00023976 max_mem: 2925M
[07/24 22:09:46 d2.utils.events]: eta: 0:42:51 iter: 979
total_loss: 0.4309 loss_cls: 0.1758 loss_box_reg: 0.2234 time:
0.2961 last_time: 0.2455 data_time: 0.0094 last_data_time: 0.0057
lr: 0.00024476 max_mem: 2925M
[07/24 22:09:52 d2.utils.events]: eta: 0:42:54 iter: 999
total_loss: 0.467 loss_cls: 0.1833 loss_box_reg: 0.25 time:
0.2966 last_time: 0.3431 data_time: 0.0182 last_data_time: 0.0283
lr: 0.00024975 max_mem: 2925M
[07/24 22:09:58 d2.utils.events]: eta: 0:42:41 iter: 1019
total_loss: 0.4323 loss_cls: 0.1849 loss_box_reg: 0.2468 time:
0.2963 last_time: 0.2477 data_time: 0.0100 last_data_time: 0.0061
lr: 0.00025 max_mem: 2925M
[07/24 22:10:03 d2.utils.events]: eta: 0:42:09 iter: 1039
total_loss: 0.4012 loss_cls: 0.1577 loss_box_reg: 0.2468 time:
0.2958 last_time: 0.2164 data_time: 0.0090 last_data_time: 0.0097
lr: 0.00025 max_mem: 2925M
[07/24 22:10:10 d2.utils.events]: eta: 0:42:24 iter: 1059
total_loss: 0.4211 loss_cls: 0.1697 loss_box_reg: 0.2582 time:
0.2962 last_time: 0.2423 data_time: 0.0142 last_data_time: 0.0064
lr: 0.00025 max_mem: 2925M
[07/24 22:10:15 d2.utils.events]: eta: 0:42:00 iter: 1079
total_loss: 0.3652 loss_cls: 0.1415 loss_box_reg: 0.2167 time:
0.2959 last_time: 0.3420 data_time: 0.0107 last_data_time: 0.0069
lr: 0.00025 max_mem: 2925M
[07/24 22:10:22 d2.utils.events]: eta: 0:41:48 iter: 1099
total_loss: 0.4199 loss_cls: 0.1512 loss_box_reg: 0.2624 time:
0.2963 last_time: 0.3046 data_time: 0.0141 last_data_time: 0.0254
lr: 0.00025 max_mem: 2925M
[07/24 22:10:27 d2.utils.events]: eta: 0:41:45 iter: 1119
total_loss: 0.396 loss_cls: 0.1534 loss_box_reg: 0.2173 time:
0.2960 last_time: 0.2677 data_time: 0.0094 last_data_time: 0.0058
lr: 0.00025 max_mem: 2925M
[07/24 22:10:32 d2.utils.events]: eta: 0:41:25 iter: 1139
total_loss: 0.3939 loss_cls: 0.153 loss_box_reg: 0.231 time:
0.2953 last_time: 0.2497 data_time: 0.0087 last_data_time: 0.0181
lr: 0.00025 max_mem: 2925M
[07/24 22:10:39 d2.utils.events]: eta: 0:41:29 iter: 1159
total_loss: 0.3811 loss_cls: 0.1473 loss_box_reg: 0.2417 time:
0.2963 last_time: 0.5068 data_time: 0.0186 last_data_time: 0.0173
lr: 0.00025 max_mem: 2925M
[07/24 22:10:46 d2.utils.events]: eta: 0:41:26 iter: 1179
total_loss: 0.362 loss_cls: 0.1326 loss_box_reg: 0.2135 time:
0.2966 last_time: 0.2085 data_time: 0.0108 last_data_time: 0.0055
lr: 0.00025 max_mem: 2925M
[07/24 22:10:52 d2.utils.events]: eta: 0:41:19 iter: 1199
total_loss: 0.3942 loss_cls: 0.1555 loss_box_reg: 0.2409 time:
0.2966 last_time: 0.3203 data_time: 0.0089 last_data_time: 0.0071
lr: 0.00025 max_mem: 2925M
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[07/24 22:10:58 d2.utils.events]: eta: 0:41:26 iter: 1219
total_loss: 0.3512 loss_cls: 0.122 loss_box_reg: 0.207 time:
0.2967 last_time: 0.3523 data_time: 0.0123 last_data_time: 0.0093
lr: 0.00025 max_mem: 2925M
[07/24 22:11:03 d2.utils.events]: eta: 0:40:57 iter: 1239
total_loss: 0.4164 loss_cls: 0.1396 loss_box_reg: 0.2668 time:
0.2961 last_time: 0.2113 data_time: 0.0098 last_data_time: 0.0084
lr: 0.00025 max_mem: 2925M
[07/24 22:11:09 d2.utils.events]: eta: 0:40:54 iter: 1259
total_loss: 0.3683 loss_cls: 0.1271 loss_box_reg: 0.2235 time:
0.2963 last_time: 0.2460 data_time: 0.0121 last_data_time: 0.0091
lr: 0.00025 max_mem: 2925M
[07/24 22:11:15 d2.utils.events]: eta: 0:40:58 iter: 1279
total_loss: 0.354 loss_cls: 0.1283 loss_box_reg: 0.219 time:
0.2963 last_time: 0.3161 data_time: 0.0086 last_data_time: 0.0130
lr: 0.00025 max_mem: 2925M
[07/24 22:11:20 d2.utils.events]: eta: 0:40:40 iter: 1299
total_loss: 0.3622 loss_cls: 0.1226 loss_box_reg: 0.2138 time:
0.2958 last_time: 0.3287 data_time: 0.0121 last_data_time: 0.0160
lr: 0.00025 max_mem: 2925M
[07/24 22:11:27 d2.utils.events]: eta: 0:40:40 iter: 1319
total_loss: 0.3225 loss_cls: 0.1184 loss_box_reg: 0.2123 time:
0.2961 last_time: 0.2422 data_time: 0.0159 last_data_time: 0.0056
lr: 0.00025 max_mem: 2925M
[07/24 22:11:32 d2.utils.events]: eta: 0:40:11 iter: 1339
total_loss: 0.4042 loss_cls: 0.1538 loss_box_reg: 0.2415 time:
0.2957 last_time: 0.3035 data_time: 0.0096 last_data_time: 0.0075
lr: 0.00025 max_mem: 2925M
[07/24 22:11:39 d2.utils.events]: eta: 0:40:17 iter: 1359
total_loss: 0.3362 loss_cls: 0.1212 loss_box_reg: 0.2096 time:
0.2964 last_time: 0.2627 data_time: 0.0193 last_data_time: 0.0069
lr: 0.00025 max_mem: 2925M
[07/24 22:11:45 d2.utils.events]: eta: 0:40:19 iter: 1379
total_loss: 0.3648 loss_cls: 0.1363 loss_box_reg: 0.2198 time:
0.2963 last_time: 0.3278 data_time: 0.0096 last_data_time: 0.0075
lr: 0.00025 max_mem: 2925M
[07/24 22:11:51 d2.utils.events]: eta: 0:40:18 iter: 1399
total_loss: 0.3313 loss_cls: 0.1117 loss_box_reg: 0.2135 time:
0.2965 last_time: 0.4238 data_time: 0.0134 last_data_time: 0.0293
lr: 0.00025 max_mem: 2925M
[07/24 22:11:57 d2.utils.events]: eta: 0:40:18 iter: 1419
total_loss: 0.338 loss_cls: 0.118 loss_box_reg: 0.2139 time:
0.2966 last_time: 0.3268 data_time: 0.0106 last_data_time: 0.0179
lr: 0.00025 max_mem: 2925M
[07/24 22:12:03 d2.utils.events]: eta: 0:40:10 iter: 1439
total_loss: 0.3486 loss_cls: 0.1294 loss_box_reg: 0.2167 time:
0.2964 last_time: 0.2437 data_time: 0.0079 last_data_time: 0.0076
lr: 0.00025 max_mem: 2925M
[07/24 22:12:09 d2.utils.events]: eta: 0:40:32 iter: 1459
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total_loss: 0.3481 loss_cls: 0.1313 loss_box_reg: 0.2166 time:  
0.2970 last_time: 0.2428 data_time: 0.0155 last_data_time: 0.0068  
lr: 0.00025 max_mem: 2925M  
[07/24 22:12:15 d2.utils.events]: eta: 0:40:27 iter: 1479  
total_loss: 0.2991 loss_cls: 0.1111 loss_box_reg: 0.1921 time:  
0.2967 last_time: 0.2469 data_time: 0.0084 last_data_time: 0.0067  
lr: 0.00025 max_mem: 2925M  
[07/24 22:12:21 d2.utils.events]: eta: 0:39:56 iter: 1499  
total_loss: 0.3227 loss_cls: 0.1108 loss_box_reg: 0.2081 time:  
0.2968 last_time: 0.2990 data_time: 0.0113 last_data_time: 0.0283  
lr: 0.00025 max_mem: 2925M  
[07/24 22:12:27 d2.utils.events]: eta: 0:40:22 iter: 1519  
total_loss: 0.3595 loss_cls: 0.1241 loss_box_reg: 0.2218 time:  
0.2968 last_time: 0.2160 data_time: 0.0122 last_data_time: 0.0128  
lr: 0.00025 max_mem: 2925M  
[07/24 22:12:33 d2.utils.events]: eta: 0:40:13 iter: 1539  
total_loss: 0.3006 loss_cls: 0.1036 loss_box_reg: 0.1982 time:  
0.2966 last_time: 0.3462 data_time: 0.0076 last_data_time: 0.0057  
lr: 0.00025 max_mem: 2925M  
[07/24 22:12:39 d2.utils.events]: eta: 0:40:08 iter: 1559  
total_loss: 0.3612 loss_cls: 0.1202 loss_box_reg: 0.2098 time:  
0.2969 last_time: 0.2854 data_time: 0.0189 last_data_time: 0.0065  
lr: 0.00025 max_mem: 2925M  
[07/24 22:12:45 d2.utils.events]: eta: 0:40:33 iter: 1579  
total_loss: 0.2937 loss_cls: 0.1026 loss_box_reg: 0.189 time:  
0.2970 last_time: 0.3193 data_time: 0.0073 last_data_time: 0.0074  
lr: 0.00025 max_mem: 2925M  
[07/24 22:12:51 d2.utils.events]: eta: 0:40:22 iter: 1599  
total_loss: 0.2868 loss_cls: 0.1066 loss_box_reg: 0.1771 time:  
0.2970 last_time: 0.4745 data_time: 0.0091 last_data_time: 0.0058  
lr: 0.00025 max_mem: 2925M  
[07/24 22:12:56 d2.utils.events]: eta: 0:39:48 iter: 1619  
total_loss: 0.318 loss_cls: 0.105 loss_box_reg: 0.2146 time:  
0.2966 last_time: 0.3295 data_time: 0.0097 last_data_time: 0.0186  
lr: 0.00025 max_mem: 2925M  
[07/24 22:13:02 d2.utils.events]: eta: 0:39:37 iter: 1639  
total_loss: 0.2998 loss_cls: 0.1046 loss_box_reg: 0.2005 time:  
0.2964 last_time: 0.2458 data_time: 0.0091 last_data_time: 0.0070  
lr: 0.00025 max_mem: 2925M  
[07/24 22:13:09 d2.utils.events]: eta: 0:39:37 iter: 1659  
total_loss: 0.3175 loss_cls: 0.1111 loss_box_reg: 0.2166 time:  
0.2969 last_time: 0.2474 data_time: 0.0129 last_data_time: 0.0055  
lr: 0.00025 max_mem: 2925M  
[07/24 22:13:16 d2.utils.events]: eta: 0:39:55 iter: 1679  
total_loss: 0.2896 loss_cls: 0.09812 loss_box_reg: 0.1905 time:  
0.2974 last_time: 0.2978 data_time: 0.0176 last_data_time: 0.0205  
lr: 0.00025 max_mem: 2925M  
[07/24 22:13:22 d2.utils.events]: eta: 0:39:31 iter: 1699  
total_loss: 0.3281 loss_cls: 0.1148 loss_box_reg: 0.2061 time:
```

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0.2978 last_time: 0.2635 data_time: 0.0123 last_data_time: 0.0070
lr: 0.00025 max_mem: 2930M
[07/24 22:13:28 d2.utils.events]: eta: 0:39:20 iter: 1719
total_loss: 0.2468 loss_cls: 0.08267 loss_box_reg: 0.1662 time:
0.2974 last_time: 0.3061 data_time: 0.0090 last_data_time: 0.0056
lr: 0.00025 max_mem: 2930M
[07/24 22:13:34 d2.utils.events]: eta: 0:39:22 iter: 1739
total_loss: 0.2971 loss_cls: 0.1026 loss_box_reg: 0.1949 time:
0.2977 last_time: 0.4437 data_time: 0.0088 last_data_time: 0.0058
lr: 0.00025 max_mem: 2930M
[07/24 22:13:40 d2.utils.events]: eta: 0:39:07 iter: 1759
total_loss: 0.286 loss_cls: 0.08901 loss_box_reg: 0.1857 time:
0.2978 last_time: 0.2560 data_time: 0.0130 last_data_time: 0.0095
lr: 0.00025 max_mem: 2930M
[07/24 22:13:46 d2.utils.events]: eta: 0:39:05 iter: 1779
total_loss: 0.2674 loss_cls: 0.08971 loss_box_reg: 0.1758 time:
0.2977 last_time: 0.2407 data_time: 0.0084 last_data_time: 0.0061
lr: 0.00025 max_mem: 2930M
[07/24 22:13:53 d2.utils.events]: eta: 0:39:15 iter: 1799
total_loss: 0.3061 loss_cls: 0.1092 loss_box_reg: 0.1846 time:
0.2981 last_time: 0.3400 data_time: 0.0149 last_data_time: 0.0077
lr: 0.00025 max_mem: 2930M
[07/24 22:13:58 d2.utils.events]: eta: 0:39:19 iter: 1819
total_loss: 0.2638 loss_cls: 0.08747 loss_box_reg: 0.1718 time:
0.2979 last_time: 0.2468 data_time: 0.0105 last_data_time: 0.0097
lr: 0.00025 max_mem: 2930M
[07/24 22:14:05 d2.utils.events]: eta: 0:39:22 iter: 1839
total_loss: 0.2877 loss_cls: 0.09761 loss_box_reg: 0.187 time:
0.2981 last_time: 0.3355 data_time: 0.0127 last_data_time: 0.0292
lr: 0.00025 max_mem: 2930M
[07/24 22:14:11 d2.utils.events]: eta: 0:39:16 iter: 1859
total_loss: 0.3254 loss_cls: 0.09718 loss_box_reg: 0.2046 time:
0.2981 last_time: 0.2125 data_time: 0.0093 last_data_time: 0.0076
lr: 0.00025 max_mem: 2930M
[07/24 22:14:16 d2.utils.events]: eta: 0:39:10 iter: 1879
total_loss: 0.3034 loss_cls: 0.09466 loss_box_reg: 0.2015 time:
0.2978 last_time: 0.3373 data_time: 0.0083 last_data_time: 0.0056
lr: 0.00025 max_mem: 2930M
[07/24 22:14:23 d2.utils.events]: eta: 0:39:06 iter: 1899
total_loss: 0.3 loss_cls: 0.09086 loss_box_reg: 0.199 time:
0.2984 last_time: 0.3462 data_time: 0.0138 last_data_time: 0.0080
lr: 0.00025 max_mem: 2930M
[07/24 22:14:29 d2.utils.events]: eta: 0:38:38 iter: 1919
total_loss: 0.2663 loss_cls: 0.08339 loss_box_reg: 0.172 time:
0.2981 last_time: 0.2288 data_time: 0.0085 last_data_time: 0.0162
lr: 0.00025 max_mem: 2930M
[07/24 22:14:35 d2.utils.events]: eta: 0:38:56 iter: 1939
total_loss: 0.2808 loss_cls: 0.08929 loss_box_reg: 0.1806 time:
0.2985 last_time: 0.4279 data_time: 0.0129 last_data_time: 0.0062
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lr: 0.00025 max_mem: 2930M
[07/24 22:14:41 d2.utils.events]: eta: 0:38:19 iter: 1959
total_loss: 0.247 loss_cls: 0.08371 loss_box_reg: 0.1712 time:
0.2982 last_time: 0.3532 data_time: 0.0086 last_data_time: 0.0054
lr: 0.00025 max_mem: 2930M
[07/24 22:14:47 d2.utils.events]: eta: 0:38:27 iter: 1979
total_loss: 0.2812 loss_cls: 0.0883 loss_box_reg: 0.195 time:
0.2982 last_time: 0.2785 data_time: 0.0094 last_data_time: 0.0060
lr: 0.00025 max_mem: 2930M
[07/24 22:14:53 d2.utils.events]: eta: 0:38:25 iter: 1999
total_loss: 0.2316 loss_cls: 0.08044 loss_box_reg: 0.1548 time:
0.2985 last_time: 0.3445 data_time: 0.0125 last_data_time: 0.0192
lr: 0.00025 max_mem: 2930M
[07/24 22:14:59 d2.utils.events]: eta: 0:38:09 iter: 2019
total_loss: 0.2712 loss_cls: 0.0851 loss_box_reg: 0.1828 time:
0.2984 last_time: 0.2484 data_time: 0.0086 last_data_time: 0.0062
lr: 0.00025 max_mem: 2930M
[07/24 22:15:06 d2.utils.events]: eta: 0:38:29 iter: 2039
total_loss: 0.2584 loss_cls: 0.07635 loss_box_reg: 0.1697 time:
0.2988 last_time: 0.2225 data_time: 0.0165 last_data_time: 0.0168
lr: 0.00025 max_mem: 2930M
[07/24 22:15:12 d2.utils.events]: eta: 0:38:18 iter: 2059
total_loss: 0.2407 loss_cls: 0.08547 loss_box_reg: 0.1595 time:
0.2987 last_time: 0.3532 data_time: 0.0082 last_data_time: 0.0077
lr: 0.00025 max_mem: 2930M
[07/24 22:15:18 d2.utils.events]: eta: 0:38:15 iter: 2079
total_loss: 0.2517 loss_cls: 0.08333 loss_box_reg: 0.1699 time:
0.2987 last_time: 0.2827 data_time: 0.0125 last_data_time: 0.0054
lr: 0.00025 max_mem: 2930M
[07/24 22:15:24 d2.utils.events]: eta: 0:38:07 iter: 2099
total_loss: 0.2976 loss_cls: 0.09129 loss_box_reg: 0.1936 time:
0.2987 last_time: 0.2577 data_time: 0.0102 last_data_time: 0.0089
lr: 0.00025 max_mem: 2930M
[07/24 22:15:29 d2.utils.events]: eta: 0:38:03 iter: 2119
total_loss: 0.2748 loss_cls: 0.08558 loss_box_reg: 0.1888 time:
0.2986 last_time: 0.2471 data_time: 0.0080 last_data_time: 0.0077
lr: 0.00025 max_mem: 2930M
[07/24 22:15:36 d2.utils.events]: eta: 0:38:10 iter: 2139
total_loss: 0.2317 loss_cls: 0.07223 loss_box_reg: 0.1678 time:
0.2988 last_time: 0.3051 data_time: 0.0155 last_data_time: 0.0078
lr: 0.00025 max_mem: 2930M
[07/24 22:15:42 d2.utils.events]: eta: 0:37:54 iter: 2159
total_loss: 0.2573 loss_cls: 0.08543 loss_box_reg: 0.1831 time:
0.2988 last_time: 0.2495 data_time: 0.0077 last_data_time: 0.0063
lr: 0.00025 max_mem: 2930M
[07/24 22:15:49 d2.utils.events]: eta: 0:37:55 iter: 2179
total_loss: 0.2618 loss_cls: 0.07447 loss_box_reg: 0.183 time:
0.2993 last_time: 0.5146 data_time: 0.0154 last_data_time: 0.0108
lr: 0.00025 max_mem: 2930M
```

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[07/24 22:15:55 d2.utils.events]: eta: 0:37:44 iter: 2199
total_loss: 0.2269 loss_cls: 0.0752 loss_box_reg: 0.1525 time:
0.2995 last_time: 0.3530 data_time: 0.0140 last_data_time: 0.0072
lr: 0.00025 max_mem: 2930M
[07/24 22:16:01 d2.utils.events]: eta: 0:37:34 iter: 2219
total_loss: 0.2457 loss_cls: 0.07812 loss_box_reg: 0.1603 time:
0.2993 last_time: 0.2484 data_time: 0.0092 last_data_time: 0.0054
lr: 0.00025 max_mem: 2930M
[07/24 22:16:07 d2.utils.events]: eta: 0:37:47 iter: 2239
total_loss: 0.2539 loss_cls: 0.07978 loss_box_reg: 0.1692 time:
0.2995 last_time: 0.3366 data_time: 0.0164 last_data_time: 0.0066
lr: 0.00025 max_mem: 2930M
[07/24 22:16:13 d2.utils.events]: eta: 0:37:41 iter: 2259
total_loss: 0.2463 loss_cls: 0.0711 loss_box_reg: 0.1599 time:
0.2994 last_time: 0.3156 data_time: 0.0105 last_data_time: 0.0268
lr: 0.00025 max_mem: 2930M
[07/24 22:16:20 d2.utils.events]: eta: 0:37:39 iter: 2279
total_loss: 0.2298 loss_cls: 0.07069 loss_box_reg: 0.1592 time:
0.2997 last_time: 0.2723 data_time: 0.0126 last_data_time: 0.0113
lr: 0.00025 max_mem: 2930M
[07/24 22:16:25 d2.utils.events]: eta: 0:37:53 iter: 2299
total_loss: 0.2431 loss_cls: 0.07676 loss_box_reg: 0.1467 time:
0.2996 last_time: 0.2105 data_time: 0.0111 last_data_time: 0.0076
lr: 0.00025 max_mem: 2930M
[07/24 22:16:31 d2.utils.events]: eta: 0:37:29 iter: 2319
total_loss: 0.2357 loss_cls: 0.07209 loss_box_reg: 0.1677 time:
0.2993 last_time: 0.2465 data_time: 0.0093 last_data_time: 0.0081
lr: 0.00025 max_mem: 2930M
[07/24 22:16:37 d2.utils.events]: eta: 0:38:02 iter: 2339
total_loss: 0.2447 loss_cls: 0.08092 loss_box_reg: 0.1584 time:
0.2995 last_time: 0.2562 data_time: 0.0136 last_data_time: 0.0183
lr: 0.00025 max_mem: 2930M
[07/24 22:16:43 d2.utils.events]: eta: 0:37:18 iter: 2359
total_loss: 0.2281 loss_cls: 0.07299 loss_box_reg: 0.1626 time:
0.2993 last_time: 0.2432 data_time: 0.0078 last_data_time: 0.0066
lr: 0.00025 max_mem: 2930M
[07/24 22:16:49 d2.utils.events]: eta: 0:37:16 iter: 2379
total_loss: 0.284 loss_cls: 0.07409 loss_box_reg: 0.2078 time:
0.2993 last_time: 0.3388 data_time: 0.0123 last_data_time: 0.0232
lr: 0.00025 max_mem: 2930M
[07/24 22:16:55 d2.utils.events]: eta: 0:37:02 iter: 2399
total_loss: 0.2222 loss_cls: 0.08032 loss_box_reg: 0.146 time:
0.2994 last_time: 0.3497 data_time: 0.0097 last_data_time: 0.0069
lr: 0.00025 max_mem: 2930M
[07/24 22:17:00 d2.utils.events]: eta: 0:36:48 iter: 2419
total_loss: 0.2343 loss_cls: 0.07551 loss_box_reg: 0.1638 time:
0.2991 last_time: 0.2100 data_time: 0.0097 last_data_time: 0.0072
lr: 0.00025 max_mem: 2930M
[07/24 22:17:07 d2.utils.events]: eta: 0:36:50 iter: 2439
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total_loss: 0.236 loss_cls: 0.08065 loss_box_reg: 0.1551 time:  
0.2994 last_time: 0.2144 data_time: 0.0141 last_data_time: 0.0057  
lr: 0.00025 max_mem: 2933M  
[07/24 22:17:13 d2.utils.events]: eta: 0:36:37 iter: 2459  
total_loss: 0.2037 loss_cls: 0.05892 loss_box_reg: 0.1478 time:  
0.2992 last_time: 0.2547 data_time: 0.0092 last_data_time: 0.0064  
lr: 0.00025 max_mem: 2933M  
[07/24 22:17:19 d2.utils.events]: eta: 0:36:38 iter: 2479  
total_loss: 0.2027 loss_cls: 0.06075 loss_box_reg: 0.145 time:  
0.2995 last_time: 0.3273 data_time: 0.0123 last_data_time: 0.0269  
lr: 0.00025 max_mem: 2933M  
[07/24 22:17:25 d2.utils.events]: eta: 0:36:25 iter: 2499  
total_loss: 0.2157 loss_cls: 0.06298 loss_box_reg: 0.146 time:  
0.2992 last_time: 0.3407 data_time: 0.0109 last_data_time: 0.0082  
lr: 0.00025 max_mem: 2933M  
[07/24 22:17:30 d2.utils.events]: eta: 0:35:52 iter: 2519  
total_loss: 0.2307 loss_cls: 0.06867 loss_box_reg: 0.1625 time:  
0.2989 last_time: 0.2203 data_time: 0.0130 last_data_time: 0.0207  
lr: 0.00025 max_mem: 2933M  
[07/24 22:17:37 d2.utils.events]: eta: 0:35:59 iter: 2539  
total_loss: 0.2294 loss_cls: 0.07743 loss_box_reg: 0.1501 time:  
0.2993 last_time: 0.2125 data_time: 0.0131 last_data_time: 0.0059  
lr: 0.00025 max_mem: 2933M  
[07/24 22:17:43 d2.utils.events]: eta: 0:35:52 iter: 2559  
total_loss: 0.1964 loss_cls: 0.06577 loss_box_reg: 0.1284 time:  
0.2992 last_time: 0.3563 data_time: 0.0094 last_data_time: 0.0066  
lr: 0.00025 max_mem: 2933M  
[07/24 22:17:49 d2.utils.events]: eta: 0:35:48 iter: 2579  
total_loss: 0.2134 loss_cls: 0.06406 loss_box_reg: 0.1495 time:  
0.2995 last_time: 0.4483 data_time: 0.0152 last_data_time: 0.0280  
lr: 0.00025 max_mem: 2933M  
[07/24 22:17:55 d2.utils.events]: eta: 0:35:29 iter: 2599  
total_loss: 0.2269 loss_cls: 0.06618 loss_box_reg: 0.1653 time:  
0.2992 last_time: 0.2554 data_time: 0.0098 last_data_time: 0.0103  
lr: 0.00025 max_mem: 2933M  
[07/24 22:18:00 d2.utils.events]: eta: 0:35:29 iter: 2619  
total_loss: 0.2331 loss_cls: 0.06072 loss_box_reg: 0.1586 time:  
0.2990 last_time: 0.2927 data_time: 0.0096 last_data_time: 0.0198  
lr: 0.00025 max_mem: 2933M  
[07/24 22:18:07 d2.utils.events]: eta: 0:35:37 iter: 2639  
total_loss: 0.2016 loss_cls: 0.05685 loss_box_reg: 0.1443 time:  
0.2993 last_time: 0.2468 data_time: 0.0133 last_data_time: 0.0059  
lr: 0.00025 max_mem: 2933M  
[07/24 22:18:12 d2.utils.events]: eta: 0:35:06 iter: 2659  
total_loss: 0.2049 loss_cls: 0.0557 loss_box_reg: 0.1478 time:  
0.2991 last_time: 0.2532 data_time: 0.0081 last_data_time: 0.0079  
lr: 0.00025 max_mem: 2933M  
[07/24 22:18:20 d2.utils.events]: eta: 0:35:12 iter: 2679  
total_loss: 0.1923 loss_cls: 0.05906 loss_box_reg: 0.1274 time:  
0.2996 last_time: 0.4003 data_time: 0.0137 last_data_time: 0.0064
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lr: 0.00025 max_mem: 2933M
[07/24 22:18:26 d2.utils.events]: eta: 0:35:15 iter: 2699
total_loss: 0.2105 loss_cls: 0.065 loss_box_reg: 0.1455 time:
0.2998 last_time: 0.2443 data_time: 0.0178 last_data_time: 0.0058
lr: 0.00025 max_mem: 2933M
[07/24 22:18:33 d2.utils.events]: eta: 0:35:30 iter: 2719
total_loss: 0.2157 loss_cls: 0.0555 loss_box_reg: 0.1564 time:
0.3001 last_time: 0.4778 data_time: 0.0134 last_data_time: 0.0061
lr: 0.00025 max_mem: 2933M
[07/24 22:18:39 d2.utils.events]: eta: 0:35:20 iter: 2739
total_loss: 0.2037 loss_cls: 0.05724 loss_box_reg: 0.1499 time:
0.3001 last_time: 0.2417 data_time: 0.0104 last_data_time: 0.0063
lr: 0.00025 max_mem: 2933M
[07/24 22:18:45 d2.utils.events]: eta: 0:35:12 iter: 2759
total_loss: 0.2187 loss_cls: 0.06611 loss_box_reg: 0.1516 time:
0.3000 last_time: 0.2642 data_time: 0.0107 last_data_time: 0.0062
lr: 0.00025 max_mem: 2933M
[07/24 22:18:51 d2.utils.events]: eta: 0:35:11 iter: 2779
total_loss: 0.2256 loss_cls: 0.05928 loss_box_reg: 0.1599 time:
0.3001 last_time: 0.2467 data_time: 0.0152 last_data_time: 0.0059
lr: 0.00025 max_mem: 2933M
[07/24 22:18:57 d2.utils.events]: eta: 0:34:43 iter: 2799
total_loss: 0.2078 loss_cls: 0.06417 loss_box_reg: 0.1479 time:
0.3000 last_time: 0.2454 data_time: 0.0092 last_data_time: 0.0053
lr: 0.00025 max_mem: 2933M
[07/24 22:19:04 d2.utils.events]: eta: 0:34:55 iter: 2819
total_loss: 0.1976 loss_cls: 0.05697 loss_box_reg: 0.144 time:
0.3003 last_time: 0.2501 data_time: 0.0137 last_data_time: 0.0063
lr: 0.00025 max_mem: 2933M
[07/24 22:19:09 d2.utils.events]: eta: 0:34:34 iter: 2839
total_loss: 0.1559 loss_cls: 0.04999 loss_box_reg: 0.1117 time:
0.3001 last_time: 0.3449 data_time: 0.0098 last_data_time: 0.0086
lr: 0.00025 max_mem: 2933M
[07/24 22:19:16 d2.utils.events]: eta: 0:34:32 iter: 2859
total_loss: 0.2047 loss_cls: 0.05358 loss_box_reg: 0.1448 time:
0.3003 last_time: 0.4733 data_time: 0.0092 last_data_time: 0.0126
lr: 0.00025 max_mem: 2933M
[07/24 22:19:22 d2.utils.events]: eta: 0:34:44 iter: 2879
total_loss: 0.2114 loss_cls: 0.05859 loss_box_reg: 0.1547 time:
0.3004 last_time: 0.3596 data_time: 0.0112 last_data_time: 0.0139
lr: 0.00025 max_mem: 2933M
[07/24 22:19:27 d2.utils.events]: eta: 0:34:14 iter: 2899
total_loss: 0.2032 loss_cls: 0.06158 loss_box_reg: 0.1388 time:
0.3001 last_time: 0.3561 data_time: 0.0082 last_data_time: 0.0060
lr: 0.00025 max_mem: 2933M
[07/24 22:19:34 d2.utils.events]: eta: 0:34:25 iter: 2919
total_loss: 0.1841 loss_cls: 0.04976 loss_box_reg: 0.1327 time:
0.3003 last_time: 0.2127 data_time: 0.0176 last_data_time: 0.0078
lr: 0.00025 max_mem: 2933M
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[07/24 22:19:39 d2.utils.events]: eta: 0:34:07 iter: 2939
total_loss: 0.2138 loss_cls: 0.05576 loss_box_reg: 0.1538 time:
0.3001 last_time: 0.3593 data_time: 0.0084 last_data_time: 0.0054
lr: 0.00025 max_mem: 2933M
[07/24 22:19:45 d2.utils.events]: eta: 0:34:14 iter: 2959
total_loss: 0.1672 loss_cls: 0.05006 loss_box_reg: 0.1202 time:
0.3001 last_time: 0.4695 data_time: 0.0132 last_data_time: 0.0242
lr: 0.00025 max_mem: 2933M
[07/24 22:19:52 d2.utils.events]: eta: 0:34:11 iter: 2979
total_loss: 0.2047 loss_cls: 0.06011 loss_box_reg: 0.1365 time:
0.3003 last_time: 0.3451 data_time: 0.0124 last_data_time: 0.0054
lr: 0.00025 max_mem: 2933M
[07/24 22:19:58 d2.utils.events]: eta: 0:33:58 iter: 2999
total_loss: 0.2067 loss_cls: 0.05919 loss_box_reg: 0.1492 time:
0.3002 last_time: 0.2525 data_time: 0.0084 last_data_time: 0.0064
lr: 0.00025 max_mem: 2933M
[07/24 22:20:04 d2.utils.events]: eta: 0:34:02 iter: 3019
total_loss: 0.2037 loss_cls: 0.05746 loss_box_reg: 0.1422 time:
0.3004 last_time: 0.2142 data_time: 0.0133 last_data_time: 0.0079
lr: 0.00025 max_mem: 2933M
[07/24 22:20:09 d2.utils.events]: eta: 0:33:34 iter: 3039
total_loss: 0.2668 loss_cls: 0.0635 loss_box_reg: 0.1909 time:
0.3002 last_time: 0.2399 data_time: 0.0080 last_data_time: 0.0060
lr: 0.00025 max_mem: 2933M
[07/24 22:20:16 d2.utils.events]: eta: 0:33:44 iter: 3059
total_loss: 0.1992 loss_cls: 0.05064 loss_box_reg: 0.1472 time:
0.3004 last_time: 0.3088 data_time: 0.0138 last_data_time: 0.0246
lr: 0.00025 max_mem: 2933M
[07/24 22:20:22 d2.utils.events]: eta: 0:33:35 iter: 3079
total_loss: 0.1954 loss_cls: 0.04932 loss_box_reg: 0.134 time:
0.3003 last_time: 0.3491 data_time: 0.0081 last_data_time: 0.0058
lr: 0.00025 max_mem: 2933M
[07/24 22:20:28 d2.utils.events]: eta: 0:33:25 iter: 3099
total_loss: 0.2264 loss_cls: 0.06897 loss_box_reg: 0.1618 time:
0.3003 last_time: 0.3052 data_time: 0.0082 last_data_time: 0.0085
lr: 0.00025 max_mem: 2933M
[07/24 22:20:35 d2.utils.events]: eta: 0:33:33 iter: 3119
total_loss: 0.1812 loss_cls: 0.05174 loss_box_reg: 0.1288 time:
0.3005 last_time: 0.2168 data_time: 0.0165 last_data_time: 0.0075
lr: 0.00025 max_mem: 2933M
[07/24 22:20:40 d2.utils.events]: eta: 0:33:19 iter: 3139
total_loss: 0.223 loss_cls: 0.05844 loss_box_reg: 0.1621 time:
0.3003 last_time: 0.2513 data_time: 0.0087 last_data_time: 0.0068
lr: 0.00025 max_mem: 2933M
[07/24 22:20:47 d2.utils.events]: eta: 0:33:15 iter: 3159
total_loss: 0.1996 loss_cls: 0.05032 loss_box_reg: 0.1407 time:
0.3005 last_time: 0.3032 data_time: 0.0118 last_data_time: 0.0221
lr: 0.00025 max_mem: 2933M
[07/24 22:20:52 d2.utils.events]: eta: 0:32:54 iter: 3179
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total_loss: 0.1762 loss_cls: 0.04935 loss_box_reg: 0.1269 time:  
0.3004 last_time: 0.2202 data_time: 0.0071 last_data_time: 0.0059  
lr: 0.00025 max_mem: 2933M  
[07/24 22:21:00 d2.utils.events]: eta: 0:33:03 iter: 3199  
total_loss: 0.1735 loss_cls: 0.04425 loss_box_reg: 0.1264 time:  
0.3008 last_time: 0.5744 data_time: 0.0116 last_data_time: 0.0121  
lr: 0.00025 max_mem: 2933M  
[07/24 22:21:07 d2.utils.events]: eta: 0:33:10 iter: 3219  
total_loss: 0.1861 loss_cls: 0.04895 loss_box_reg: 0.138 time:  
0.3011 last_time: 0.3170 data_time: 0.0129 last_data_time: 0.0116  
lr: 0.00025 max_mem: 2933M  
[07/24 22:21:12 d2.utils.events]: eta: 0:32:58 iter: 3239  
total_loss: 0.1837 loss_cls: 0.03816 loss_box_reg: 0.1367 time:  
0.3010 last_time: 0.3555 data_time: 0.0080 last_data_time: 0.0066  
lr: 0.00025 max_mem: 2933M  
[07/24 22:21:19 d2.utils.events]: eta: 0:32:53 iter: 3259  
total_loss: 0.1912 loss_cls: 0.04548 loss_box_reg: 0.1461 time:  
0.3013 last_time: 0.2461 data_time: 0.0142 last_data_time: 0.0082  
lr: 0.00025 max_mem: 2933M  
[07/24 22:21:25 d2.utils.events]: eta: 0:32:28 iter: 3279  
total_loss: 0.2303 loss_cls: 0.0545 loss_box_reg: 0.1743 time:  
0.3011 last_time: 0.2539 data_time: 0.0085 last_data_time: 0.0088  
lr: 0.00025 max_mem: 2933M  
[07/24 22:21:31 d2.utils.events]: eta: 0:32:22 iter: 3299  
total_loss: 0.189 loss_cls: 0.05121 loss_box_reg: 0.1308 time:  
0.3012 last_time: 0.3441 data_time: 0.0112 last_data_time: 0.0300  
lr: 0.00025 max_mem: 2933M  
[07/24 22:21:37 d2.utils.events]: eta: 0:32:32 iter: 3319  
total_loss: 0.1976 loss_cls: 0.06393 loss_box_reg: 0.1357 time:  
0.3011 last_time: 0.2092 data_time: 0.0119 last_data_time: 0.0074  
lr: 0.00025 max_mem: 2933M  
[07/24 22:21:43 d2.utils.events]: eta: 0:32:21 iter: 3339  
total_loss: 0.2019 loss_cls: 0.056 loss_box_reg: 0.1465 time:  
0.3011 last_time: 0.3477 data_time: 0.0086 last_data_time: 0.0060  
lr: 0.00025 max_mem: 2933M  
[07/24 22:21:49 d2.utils.events]: eta: 0:32:25 iter: 3359  
total_loss: 0.1964 loss_cls: 0.04717 loss_box_reg: 0.1469 time:  
0.3012 last_time: 0.3525 data_time: 0.0135 last_data_time: 0.0053  
lr: 0.00025 max_mem: 2933M  
[07/24 22:21:55 d2.utils.events]: eta: 0:32:17 iter: 3379  
total_loss: 0.1902 loss_cls: 0.053 loss_box_reg: 0.1433 time:  
0.3011 last_time: 0.2317 data_time: 0.0083 last_data_time: 0.0075  
lr: 0.00025 max_mem: 2933M  
[07/24 22:22:01 d2.utils.events]: eta: 0:32:12 iter: 3399  
total_loss: 0.1682 loss_cls: 0.04311 loss_box_reg: 0.1169 time:  
0.3013 last_time: 0.4929 data_time: 0.0109 last_data_time: 0.0214  
lr: 0.00025 max_mem: 2933M  
[07/24 22:22:07 d2.utils.events]: eta: 0:32:08 iter: 3419  
total_loss: 0.1645 loss_cls: 0.0504 loss_box_reg: 0.1216 time:
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0.3011 last_time: 0.2718 data_time: 0.0101 last_data_time: 0.0057
lr: 0.00025 max_mem: 2933M
[07/24 22:22:13 d2.utils.events]: eta: 0:31:50 iter: 3439
total_loss: 0.17 loss_cls: 0.05301 loss_box_reg: 0.1276 time:
0.3010 last_time: 0.2572 data_time: 0.0099 last_data_time: 0.0061
lr: 0.00025 max_mem: 2933M
[07/24 22:22:19 d2.utils.events]: eta: 0:31:47 iter: 3459
total_loss: 0.1619 loss_cls: 0.04552 loss_box_reg: 0.118 time:
0.3011 last_time: 0.3382 data_time: 0.0146 last_data_time: 0.0159
lr: 0.00025 max_mem: 2933M
[07/24 22:22:24 d2.utils.events]: eta: 0:30:55 iter: 3479
total_loss: 0.1696 loss_cls: 0.03978 loss_box_reg: 0.1203 time:
0.3009 last_time: 0.2467 data_time: 0.0096 last_data_time: 0.0057
lr: 0.00025 max_mem: 2933M
[07/24 22:22:30 d2.utils.events]: eta: 0:31:07 iter: 3499
total_loss: 0.1762 loss_cls: 0.04581 loss_box_reg: 0.1273 time:
0.3009 last_time: 0.2818 data_time: 0.0145 last_data_time: 0.0106
lr: 0.00025 max_mem: 2933M
[07/24 22:22:36 d2.utils.events]: eta: 0:31:30 iter: 3519
total_loss: 0.1996 loss_cls: 0.05047 loss_box_reg: 0.1404 time:
0.3009 last_time: 0.2199 data_time: 0.0111 last_data_time: 0.0055
lr: 0.00025 max_mem: 2933M
[07/24 22:22:42 d2.utils.events]: eta: 0:31:03 iter: 3539
total_loss: 0.1787 loss_cls: 0.0476 loss_box_reg: 0.1334 time:
0.3007 last_time: 0.2537 data_time: 0.0088 last_data_time: 0.0179
lr: 0.00025 max_mem: 2933M
[07/24 22:22:48 d2.utils.events]: eta: 0:31:17 iter: 3559
total_loss: 0.195 loss_cls: 0.06433 loss_box_reg: 0.1244 time:
0.3009 last_time: 0.2146 data_time: 0.0121 last_data_time: 0.0110
lr: 0.00025 max_mem: 2933M
[07/24 22:22:54 d2.utils.events]: eta: 0:30:42 iter: 3579
total_loss: 0.1619 loss_cls: 0.04426 loss_box_reg: 0.1182 time:
0.3008 last_time: 0.2480 data_time: 0.0079 last_data_time: 0.0056
lr: 0.00025 max_mem: 2933M
[07/24 22:23:00 d2.utils.events]: eta: 0:31:06 iter: 3599
total_loss: 0.1725 loss_cls: 0.04222 loss_box_reg: 0.1243 time:
0.3008 last_time: 0.4794 data_time: 0.0131 last_data_time: 0.0219
lr: 0.00025 max_mem: 2933M
[07/24 22:23:06 d2.utils.events]: eta: 0:31:05 iter: 3619
total_loss: 0.1707 loss_cls: 0.04691 loss_box_reg: 0.1255 time:
0.3008 last_time: 0.2528 data_time: 0.0077 last_data_time: 0.0066
lr: 0.00025 max_mem: 2933M
[07/24 22:23:12 d2.utils.events]: eta: 0:30:45 iter: 3639
total_loss: 0.1694 loss_cls: 0.04589 loss_box_reg: 0.1243 time:
0.3008 last_time: 0.4605 data_time: 0.0082 last_data_time: 0.0191
lr: 0.00025 max_mem: 2933M
[07/24 22:23:18 d2.utils.events]: eta: 0:30:53 iter: 3659
total_loss: 0.1497 loss_cls: 0.04158 loss_box_reg: 0.1064 time:
0.3008 last_time: 0.2108 data_time: 0.0087 last_data_time: 0.0064
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lr: 0.00025 max_mem: 2933M
[07/24 22:23:24 d2.utils.events]: eta: 0:30:11 iter: 3679
total_loss: 0.1432 loss_cls: 0.03719 loss_box_reg: 0.1045 time:
0.3007 last_time: 0.2434 data_time: 0.0108 last_data_time: 0.0073
lr: 0.00025 max_mem: 2933M
[07/24 22:23:30 d2.utils.events]: eta: 0:29:55 iter: 3699
total_loss: 0.1616 loss_cls: 0.04555 loss_box_reg: 0.1139 time:
0.3009 last_time: 0.2742 data_time: 0.0103 last_data_time: 0.0078
lr: 0.00025 max_mem: 2933M
[07/24 22:23:37 d2.utils.events]: eta: 0:29:47 iter: 3719
total_loss: 0.1623 loss_cls: 0.0443 loss_box_reg: 0.118 time:
0.3011 last_time: 0.2495 data_time: 0.0165 last_data_time: 0.0072
lr: 0.00025 max_mem: 2933M
[07/24 22:23:43 d2.utils.events]: eta: 0:29:37 iter: 3739
total_loss: 0.158 loss_cls: 0.0386 loss_box_reg: 0.1157 time:
0.3011 last_time: 0.3162 data_time: 0.0117 last_data_time: 0.0245
lr: 0.00025 max_mem: 2933M
[07/24 22:23:49 d2.utils.events]: eta: 0:29:31 iter: 3759
total_loss: 0.1581 loss_cls: 0.03979 loss_box_reg: 0.1178 time:
0.3011 last_time: 0.3606 data_time: 0.0129 last_data_time: 0.0096
lr: 0.00025 max_mem: 2933M
[07/24 22:23:56 d2.utils.events]: eta: 0:29:22 iter: 3779
total_loss: 0.1657 loss_cls: 0.04117 loss_box_reg: 0.1222 time:
0.3011 last_time: 0.2471 data_time: 0.0076 last_data_time: 0.0072
lr: 0.00025 max_mem: 2933M
[07/24 22:24:02 d2.utils.events]: eta: 0:29:39 iter: 3799
total_loss: 0.1629 loss_cls: 0.04925 loss_box_reg: 0.1138 time:
0.3013 last_time: 0.2423 data_time: 0.0162 last_data_time: 0.0058
lr: 0.00025 max_mem: 2933M
[07/24 22:24:08 d2.utils.events]: eta: 0:29:10 iter: 3819
total_loss: 0.154 loss_cls: 0.03877 loss_box_reg: 0.1167 time:
0.3012 last_time: 0.3622 data_time: 0.0073 last_data_time: 0.0071
lr: 0.00025 max_mem: 2933M
[07/24 22:24:14 d2.utils.events]: eta: 0:29:19 iter: 3839
total_loss: 0.1615 loss_cls: 0.03602 loss_box_reg: 0.1256 time:
0.3012 last_time: 0.3266 data_time: 0.0141 last_data_time: 0.0259
lr: 0.00025 max_mem: 2933M
[07/24 22:24:20 d2.utils.events]: eta: 0:29:00 iter: 3859
total_loss: 0.1597 loss_cls: 0.04143 loss_box_reg: 0.1147 time:
0.3012 last_time: 0.2508 data_time: 0.0100 last_data_time: 0.0059
lr: 0.00025 max_mem: 2933M
[07/24 22:24:26 d2.utils.events]: eta: 0:28:53 iter: 3879
total_loss: 0.1405 loss_cls: 0.0408 loss_box_reg: 0.09631 time:
0.3012 last_time: 0.3371 data_time: 0.0104 last_data_time: 0.0258
lr: 0.00025 max_mem: 2933M
[07/24 22:24:32 d2.utils.events]: eta: 0:29:11 iter: 3899
total_loss: 0.1806 loss_cls: 0.04734 loss_box_reg: 0.1323 time:
0.3013 last_time: 0.2435 data_time: 0.0117 last_data_time: 0.0068
lr: 0.00025 max_mem: 2933M
```

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[07/24 22:24:38 d2.utils.events]: eta: 0:29:02 iter: 3919
total_loss: 0.1599 loss_cls: 0.03441 loss_box_reg: 0.1201 time:
0.3013 last_time: 0.2205 data_time: 0.0082 last_data_time: 0.0130
lr: 0.00025 max_mem: 2933M
[07/24 22:24:45 d2.utils.events]: eta: 0:29:01 iter: 3939
total_loss: 0.1744 loss_cls: 0.04347 loss_box_reg: 0.1213 time:
0.3015 last_time: 0.2436 data_time: 0.0129 last_data_time: 0.0054
lr: 0.00025 max_mem: 2933M
[07/24 22:24:51 d2.utils.events]: eta: 0:28:51 iter: 3959
total_loss: 0.1498 loss_cls: 0.03545 loss_box_reg: 0.1151 time:
0.3014 last_time: 0.3404 data_time: 0.0103 last_data_time: 0.0185
lr: 0.00025 max_mem: 2933M
[07/24 22:24:57 d2.utils.events]: eta: 0:28:48 iter: 3979
total_loss: 0.1424 loss_cls: 0.03175 loss_box_reg: 0.1081 time:
0.3015 last_time: 0.4853 data_time: 0.0114 last_data_time: 0.0264
lr: 0.00025 max_mem: 2933M
[07/24 22:25:03 d2.utils.events]: eta: 0:28:42 iter: 3999
total_loss: 0.1621 loss_cls: 0.04816 loss_box_reg: 0.1212 time:
0.3015 last_time: 0.3350 data_time: 0.0119 last_data_time: 0.0075
lr: 0.00025 max_mem: 2933M
[07/24 22:25:09 d2.utils.events]: eta: 0:28:07 iter: 4019
total_loss: 0.1542 loss_cls: 0.04419 loss_box_reg: 0.1169 time:
0.3013 last_time: 0.2657 data_time: 0.0092 last_data_time: 0.0064
lr: 0.00025 max_mem: 2933M
[07/24 22:25:15 d2.utils.events]: eta: 0:28:28 iter: 4039
total_loss: 0.1639 loss_cls: 0.04592 loss_box_reg: 0.1188 time:
0.3014 last_time: 0.2528 data_time: 0.0196 last_data_time: 0.0098
lr: 0.00025 max_mem: 2933M
[07/24 22:25:21 d2.utils.events]: eta: 0:28:11 iter: 4059
total_loss: 0.1431 loss_cls: 0.03962 loss_box_reg: 0.1068 time:
0.3014 last_time: 0.3221 data_time: 0.0094 last_data_time: 0.0107
lr: 0.00025 max_mem: 2933M
[07/24 22:25:28 d2.utils.events]: eta: 0:28:25 iter: 4079
total_loss: 0.1365 loss_cls: 0.03667 loss_box_reg: 0.1046 time:
0.3016 last_time: 0.4354 data_time: 0.0176 last_data_time: 0.0273
lr: 0.00025 max_mem: 2933M
[07/24 22:25:34 d2.utils.events]: eta: 0:28:19 iter: 4099
total_loss: 0.1384 loss_cls: 0.03251 loss_box_reg: 0.09931 time:
0.3016 last_time: 0.2542 data_time: 0.0095 last_data_time: 0.0169
lr: 0.00025 max_mem: 2933M
[07/24 22:25:41 d2.utils.events]: eta: 0:28:09 iter: 4119
total_loss: 0.1529 loss_cls: 0.03656 loss_box_reg: 0.1151 time:
0.3017 last_time: 0.2817 data_time: 0.0074 last_data_time: 0.0053
lr: 0.00025 max_mem: 2933M
[07/24 22:25:47 d2.utils.events]: eta: 0:28:15 iter: 4139
total_loss: 0.1417 loss_cls: 0.03583 loss_box_reg: 0.1017 time:
0.3017 last_time: 0.2473 data_time: 0.0139 last_data_time: 0.0066
lr: 0.00025 max_mem: 2933M
[07/24 22:25:52 d2.utils.events]: eta: 0:27:56 iter: 4159
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total_loss: 0.1495 loss_cls: 0.03574 loss_box_reg: 0.1165 time:  
0.3016 last_time: 0.2628 data_time: 0.0092 last_data_time: 0.0099  
lr: 0.00025 max_mem: 2933M  
[07/24 22:25:59 d2.utils.events]: eta: 0:28:02 iter: 4179  
total_loss: 0.1484 loss_cls: 0.04096 loss_box_reg: 0.1118 time:  
0.3018 last_time: 0.2179 data_time: 0.0187 last_data_time: 0.0052  
lr: 0.00025 max_mem: 2933M  
[07/24 22:26:05 d2.utils.events]: eta: 0:27:43 iter: 4199  
total_loss: 0.1518 loss_cls: 0.03984 loss_box_reg: 0.1137 time:  
0.3017 last_time: 0.2585 data_time: 0.0088 last_data_time: 0.0089  
lr: 0.00025 max_mem: 2933M  
[07/24 22:26:13 d2.utils.events]: eta: 0:27:39 iter: 4219  
total_loss: 0.158 loss_cls: 0.03844 loss_box_reg: 0.1184 time:  
0.3022 last_time: 0.4873 data_time: 0.0122 last_data_time: 0.0063  
lr: 0.00025 max_mem: 2933M  
[07/24 22:26:19 d2.utils.events]: eta: 0:27:30 iter: 4239  
total_loss: 0.1442 loss_cls: 0.03452 loss_box_reg: 0.1109 time:  
0.3021 last_time: 0.2516 data_time: 0.0111 last_data_time: 0.0074  
lr: 0.00025 max_mem: 2933M  
[07/24 22:26:24 d2.utils.events]: eta: 0:27:09 iter: 4259  
total_loss: 0.144 loss_cls: 0.03503 loss_box_reg: 0.1083 time:  
0.3021 last_time: 0.4438 data_time: 0.0089 last_data_time: 0.0238  
lr: 0.00025 max_mem: 2933M  
[07/24 22:26:31 d2.utils.events]: eta: 0:27:19 iter: 4279  
total_loss: 0.1364 loss_cls: 0.03585 loss_box_reg: 0.103 time:  
0.3022 last_time: 0.2456 data_time: 0.0113 last_data_time: 0.0059  
lr: 0.00025 max_mem: 2933M  
[07/24 22:26:37 d2.utils.events]: eta: 0:27:11 iter: 4299  
total_loss: 0.1681 loss_cls: 0.04167 loss_box_reg: 0.1254 time:  
0.3021 last_time: 0.2280 data_time: 0.0102 last_data_time: 0.0109  
lr: 0.00025 max_mem: 2933M  
[07/24 22:26:43 d2.utils.events]: eta: 0:27:02 iter: 4319  
total_loss: 0.1613 loss_cls: 0.04489 loss_box_reg: 0.1211 time:  
0.3022 last_time: 0.2865 data_time: 0.0132 last_data_time: 0.0174  
lr: 0.00025 max_mem: 2933M  
[07/24 22:26:49 d2.utils.events]: eta: 0:26:47 iter: 4339  
total_loss: 0.1614 loss_cls: 0.0372 loss_box_reg: 0.1229 time:  
0.3021 last_time: 0.3685 data_time: 0.0092 last_data_time: 0.0113  
lr: 0.00025 max_mem: 2933M  
[07/24 22:26:55 d2.utils.events]: eta: 0:26:29 iter: 4359  
total_loss: 0.1567 loss_cls: 0.03814 loss_box_reg: 0.1155 time:  
0.3021 last_time: 0.3291 data_time: 0.0104 last_data_time: 0.0263  
lr: 0.00025 max_mem: 2933M  
[07/24 22:27:02 d2.utils.events]: eta: 0:26:27 iter: 4379  
total_loss: 0.1462 loss_cls: 0.03538 loss_box_reg: 0.109 time:  
0.3023 last_time: 0.2108 data_time: 0.0115 last_data_time: 0.0085  
lr: 0.00025 max_mem: 2933M  
[07/24 22:27:07 d2.utils.events]: eta: 0:26:09 iter: 4399  
total_loss: 0.1444 loss_cls: 0.03597 loss_box_reg: 0.1061 time:
```

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0.3021 last_time: 0.2567 data_time: 0.0081 last_data_time: 0.0078
lr: 0.00025 max_mem: 2933M
[07/24 22:27:14 d2.utils.events]: eta: 0:26:15 iter: 4419
total_loss: 0.1394 loss_cls: 0.02914 loss_box_reg: 0.1055 time:
0.3023 last_time: 0.2510 data_time: 0.0143 last_data_time: 0.0079
lr: 0.00025 max_mem: 2933M
[07/24 22:27:20 d2.utils.events]: eta: 0:26:19 iter: 4439
total_loss: 0.1718 loss_cls: 0.03799 loss_box_reg: 0.1315 time:
0.3022 last_time: 0.3696 data_time: 0.0092 last_data_time: 0.0076
lr: 0.00025 max_mem: 2933M
[07/24 22:27:26 d2.utils.events]: eta: 0:26:26 iter: 4459
total_loss: 0.1612 loss_cls: 0.03637 loss_box_reg: 0.128 time:
0.3024 last_time: 0.2833 data_time: 0.0146 last_data_time: 0.0091
lr: 0.00025 max_mem: 2933M
[07/24 22:27:33 d2.utils.events]: eta: 0:26:39 iter: 4479
total_loss: 0.1332 loss_cls: 0.03513 loss_box_reg: 0.09541 time:
0.3024 last_time: 0.2592 data_time: 0.0095 last_data_time: 0.0117
lr: 0.00025 max_mem: 2933M
[07/24 22:27:39 d2.utils.events]: eta: 0:26:29 iter: 4499
total_loss: 0.1449 loss_cls: 0.03857 loss_box_reg: 0.1123 time:
0.3024 last_time: 0.5033 data_time: 0.0098 last_data_time: 0.0303
lr: 0.00025 max_mem: 2933M
[07/24 22:27:45 d2.utils.events]: eta: 0:26:23 iter: 4519
total_loss: 0.1421 loss_cls: 0.03487 loss_box_reg: 0.1113 time:
0.3024 last_time: 0.2415 data_time: 0.0129 last_data_time: 0.0062
lr: 0.00025 max_mem: 2933M
[07/24 22:27:50 d2.utils.events]: eta: 0:26:22 iter: 4539
total_loss: 0.1433 loss_cls: 0.03906 loss_box_reg: 0.1051 time:
0.3023 last_time: 0.3464 data_time: 0.0086 last_data_time: 0.0067
lr: 0.00025 max_mem: 2933M
[07/24 22:27:57 d2.utils.events]: eta: 0:26:12 iter: 4559
total_loss: 0.1611 loss_cls: 0.03577 loss_box_reg: 0.1254 time:
0.3024 last_time: 0.3469 data_time: 0.0178 last_data_time: 0.0192
lr: 0.00025 max_mem: 2933M
[07/24 22:28:02 d2.utils.events]: eta: 0:26:05 iter: 4579
total_loss: 0.1466 loss_cls: 0.03226 loss_box_reg: 0.1162 time:
0.3023 last_time: 0.2205 data_time: 0.0085 last_data_time: 0.0085
lr: 0.00025 max_mem: 2933M
[07/24 22:28:08 d2.utils.events]: eta: 0:25:48 iter: 4599
total_loss: 0.1406 loss_cls: 0.03717 loss_box_reg: 0.1096 time:
0.3023 last_time: 0.4002 data_time: 0.0080 last_data_time: 0.0064
lr: 0.00025 max_mem: 2933M
[07/24 22:28:15 d2.utils.events]: eta: 0:25:53 iter: 4619
total_loss: 0.1421 loss_cls: 0.03868 loss_box_reg: 0.101 time:
0.3023 last_time: 0.3646 data_time: 0.0141 last_data_time: 0.0103
lr: 0.00025 max_mem: 2933M
[07/24 22:28:20 d2.utils.events]: eta: 0:25:42 iter: 4639
total_loss: 0.13 loss_cls: 0.03277 loss_box_reg: 0.1023 time:
0.3022 last_time: 0.3668 data_time: 0.0092 last_data_time: 0.0209
```

```
lr: 0.00025 max_mem: 2933M
[07/24 22:28:27 d2.utils.events]: eta: 0:25:42 iter: 4659
total_loss: 0.1481 loss_cls: 0.03625 loss_box_reg: 0.108 time:
0.3024 last_time: 0.1973 data_time: 0.0158 last_data_time: 0.0065
lr: 0.00025 max_mem: 2933M
[07/24 22:28:33 d2.utils.events]: eta: 0:25:39 iter: 4679
total_loss: 0.1643 loss_cls: 0.02709 loss_box_reg: 0.1283 time:
0.3024 last_time: 0.2438 data_time: 0.0105 last_data_time: 0.0066
lr: 0.00025 max_mem: 2933M
[07/24 22:28:40 d2.utils.events]: eta: 0:25:33 iter: 4699
total_loss: 0.1641 loss_cls: 0.03491 loss_box_reg: 0.1252 time:
0.3026 last_time: 0.3023 data_time: 0.0115 last_data_time: 0.0189
lr: 0.00025 max_mem: 2933M
[07/24 22:28:46 d2.utils.events]: eta: 0:25:24 iter: 4719
total_loss: 0.1464 loss_cls: 0.03452 loss_box_reg: 0.1141 time:
0.3026 last_time: 0.2134 data_time: 0.0156 last_data_time: 0.0112
lr: 0.00025 max_mem: 2933M
[07/24 22:28:52 d2.utils.events]: eta: 0:24:56 iter: 4739
total_loss: 0.1788 loss_cls: 0.03873 loss_box_reg: 0.1392 time:
0.3025 last_time: 0.2214 data_time: 0.0089 last_data_time: 0.0058
lr: 0.00025 max_mem: 2933M
[07/24 22:28:59 d2.utils.events]: eta: 0:25:14 iter: 4759
total_loss: 0.1467 loss_cls: 0.03191 loss_box_reg: 0.1132 time:
0.3027 last_time: 0.3799 data_time: 0.0169 last_data_time: 0.0068
lr: 0.00025 max_mem: 2933M
[07/24 22:29:04 d2.utils.events]: eta: 0:24:57 iter: 4779
total_loss: 0.1745 loss_cls: 0.02981 loss_box_reg: 0.135 time:
0.3026 last_time: 0.2448 data_time: 0.0100 last_data_time: 0.0066
lr: 0.00025 max_mem: 2933M
[07/24 22:29:11 d2.utils.events]: eta: 0:24:44 iter: 4799
total_loss: 0.1251 loss_cls: 0.03122 loss_box_reg: 0.09673 time:
0.3027 last_time: 0.3259 data_time: 0.0187 last_data_time: 0.0302
lr: 0.00025 max_mem: 2933M
[07/24 22:29:17 d2.utils.events]: eta: 0:24:54 iter: 4819
total_loss: 0.1312 loss_cls: 0.0284 loss_box_reg: 0.104 time:
0.3027 last_time: 0.3499 data_time: 0.0100 last_data_time: 0.0074
lr: 0.00025 max_mem: 2933M
[07/24 22:29:23 d2.utils.events]: eta: 0:24:33 iter: 4839
total_loss: 0.1338 loss_cls: 0.03178 loss_box_reg: 0.1041 time:
0.3027 last_time: 0.3096 data_time: 0.0118 last_data_time: 0.0267
lr: 0.00025 max_mem: 2933M
[07/24 22:29:29 d2.utils.events]: eta: 0:24:39 iter: 4859
total_loss: 0.1652 loss_cls: 0.03914 loss_box_reg: 0.1283 time:
0.3026 last_time: 0.3508 data_time: 0.0159 last_data_time: 0.0075
lr: 0.00025 max_mem: 2933M
[07/24 22:29:35 d2.utils.events]: eta: 0:24:28 iter: 4879
total_loss: 0.1407 loss_cls: 0.02996 loss_box_reg: 0.1144 time:
0.3026 last_time: 0.3463 data_time: 0.0090 last_data_time: 0.0071
lr: 0.00025 max_mem: 2933M
```

```
[07/24 22:29:42 d2.utils.events]: eta: 0:24:32 iter: 4899
total_loss: 0.1376 loss_cls: 0.03244 loss_box_reg: 0.1019 time:
0.3028 last_time: 0.3490 data_time: 0.0175 last_data_time: 0.0177
lr: 0.00025 max_mem: 2933M
[07/24 22:29:47 d2.utils.events]: eta: 0:23:59 iter: 4919
total_loss: 0.1314 loss_cls: 0.03081 loss_box_reg: 0.09304 time:
0.3027 last_time: 0.2531 data_time: 0.0080 last_data_time: 0.0141
lr: 0.00025 max_mem: 2933M
[07/24 22:29:53 d2.utils.events]: eta: 0:23:44 iter: 4939
total_loss: 0.1261 loss_cls: 0.0294 loss_box_reg: 0.09839 time:
0.3027 last_time: 0.4704 data_time: 0.0087 last_data_time: 0.0067
lr: 0.00025 max_mem: 2933M
[07/24 22:29:59 d2.utils.events]: eta: 0:23:48 iter: 4959
total_loss: 0.1319 loss_cls: 0.02941 loss_box_reg: 0.1007 time:
0.3027 last_time: 0.3620 data_time: 0.0132 last_data_time: 0.0072
lr: 0.00025 max_mem: 2933M
[07/24 22:30:05 d2.utils.events]: eta: 0:23:24 iter: 4979
total_loss: 0.1255 loss_cls: 0.03055 loss_box_reg: 0.09754 time:
0.3026 last_time: 0.3260 data_time: 0.0081 last_data_time: 0.0071
lr: 0.00025 max_mem: 2933M
[07/24 22:30:13 d2.utils.events]: eta: 0:23:24 iter: 4999
total_loss: 0.128 loss_cls: 0.03684 loss_box_reg: 0.09618 time:
0.3028 last_time: 0.2466 data_time: 0.0148 last_data_time: 0.0077
lr: 0.00025 max_mem: 2933M
[07/24 22:30:20 d2.utils.events]: eta: 0:23:34 iter: 5019
total_loss: 0.1459 loss_cls: 0.03382 loss_box_reg: 0.1064 time:
0.3027 last_time: 0.3853 data_time: 0.0083 last_data_time: 0.0179
lr: 0.00025 max_mem: 2933M
[07/24 22:30:27 d2.utils.events]: eta: 0:23:23 iter: 5039
total_loss: 0.1209 loss_cls: 0.02723 loss_box_reg: 0.091 time:
0.3029 last_time: 0.2482 data_time: 0.0131 last_data_time: 0.0053
lr: 0.00025 max_mem: 2933M
[07/24 22:30:33 d2.utils.events]: eta: 0:23:19 iter: 5059
total_loss: 0.1264 loss_cls: 0.03026 loss_box_reg: 0.09577 time:
0.3029 last_time: 0.3771 data_time: 0.0104 last_data_time: 0.0104
lr: 0.00025 max_mem: 2933M
[07/24 22:30:40 d2.utils.events]: eta: 0:23:05 iter: 5079
total_loss: 0.1414 loss_cls: 0.02944 loss_box_reg: 0.1065 time:
0.3030 last_time: 0.3593 data_time: 0.0127 last_data_time: 0.0065
lr: 0.00025 max_mem: 2933M
[07/24 22:30:45 d2.utils.events]: eta: 0:22:45 iter: 5099
total_loss: 0.1087 loss_cls: 0.02606 loss_box_reg: 0.0835 time:
0.3029 last_time: 0.2432 data_time: 0.0093 last_data_time: 0.0096
lr: 0.00025 max_mem: 2933M
[07/24 22:30:51 d2.utils.events]: eta: 0:22:31 iter: 5119
total_loss: 0.1245 loss_cls: 0.02917 loss_box_reg: 0.09399 time:
0.3028 last_time: 0.3057 data_time: 0.0086 last_data_time: 0.0155
lr: 0.00025 max_mem: 2933M
[07/24 22:30:57 d2.utils.events]: eta: 0:22:28 iter: 5139
```

```
total_loss: 0.1173 loss_cls: 0.02355 loss_box_reg: 0.09182 time: 0.3029 last_time: 0.2515 data_time: 0.0115 last_data_time: 0.0061 lr: 0.00025 max_mem: 2933M [07/24 22:31:03 d2.utils.events]: eta: 0:22:25 iter: 5159 total_loss: 0.1425 loss_cls: 0.02787 loss_box_reg: 0.1122 time: 0.3028 last_time: 0.2443 data_time: 0.0093 last_data_time: 0.0072 lr: 0.00025 max_mem: 2933M [07/24 22:31:10 d2.utils.events]: eta: 0:22:27 iter: 5179 total_loss: 0.1208 loss_cls: 0.02361 loss_box_reg: 0.09648 time: 0.3030 last_time: 0.3603 data_time: 0.0107 last_data_time: 0.0085 lr: 0.00025 max_mem: 2933M [07/24 22:31:16 d2.utils.events]: eta: 0:22:35 iter: 5199 total_loss: 0.1325 loss_cls: 0.02848 loss_box_reg: 0.09846 time: 0.3031 last_time: 0.2526 data_time: 0.0129 last_data_time: 0.0083 lr: 0.00025 max_mem: 2933M [07/24 22:31:23 d2.utils.events]: eta: 0:22:18 iter: 5219 total_loss: 0.1124 loss_cls: 0.01848 loss_box_reg: 0.08573 time: 0.3032 last_time: 0.2916 data_time: 0.0146 last_data_time: 0.0059 lr: 0.00025 max_mem: 2933M [07/24 22:31:28 d2.utils.events]: eta: 0:22:10 iter: 5239 total_loss: 0.1392 loss_cls: 0.03017 loss_box_reg: 0.1063 time: 0.3031 last_time: 0.2488 data_time: 0.0106 last_data_time: 0.0093 lr: 0.00025 max_mem: 2933M [07/24 22:31:34 d2.utils.events]: eta: 0:22:07 iter: 5259 total_loss: 0.1433 loss_cls: 0.02957 loss_box_reg: 0.1092 time: 0.3030 last_time: 0.3059 data_time: 0.0082 last_data_time: 0.0071 lr: 0.00025 max_mem: 2933M [07/24 22:31:41 d2.utils.events]: eta: 0:22:04 iter: 5279 total_loss: 0.1222 loss_cls: 0.02639 loss_box_reg: 0.1012 time: 0.3032 last_time: 0.2479 data_time: 0.0178 last_data_time: 0.0069 lr: 0.00025 max_mem: 2933M [07/24 22:31:46 d2.utils.events]: eta: 0:21:49 iter: 5299 total_loss: 0.1186 loss_cls: 0.03311 loss_box_reg: 0.09334 time: 0.3030 last_time: 0.2431 data_time: 0.0081 last_data_time: 0.0065 lr: 0.00025 max_mem: 2933M [07/24 22:31:53 d2.utils.events]: eta: 0:21:48 iter: 5319 total_loss: 0.1084 loss_cls: 0.02394 loss_box_reg: 0.09 time: 0.3032 last_time: 0.3691 data_time: 0.0140 last_data_time: 0.0056 lr: 0.00025 max_mem: 2933M [07/24 22:31:59 d2.utils.events]: eta: 0:21:53 iter: 5339 total_loss: 0.1315 loss_cls: 0.02476 loss_box_reg: 0.09939 time: 0.3032 last_time: 0.3420 data_time: 0.0077 last_data_time: 0.0064 lr: 0.00025 max_mem: 2933M [07/24 22:32:06 d2.utils.events]: eta: 0:21:55 iter: 5359 total_loss: 0.1402 loss_cls: 0.03117 loss_box_reg: 0.105 time: 0.3033 last_time: 0.3364 data_time: 0.0140 last_data_time: 0.0287 lr: 0.00025 max_mem: 2933M [07/24 22:32:12 d2.utils.events]: eta: 0:21:38 iter: 5379 total_loss: 0.1393 loss_cls: 0.02468 loss_box_reg: 0.1131 time: 0.3032 last_time: 0.3551 data_time: 0.0091 last_data_time: 0.0062
```

```
lr: 0.00025 max_mem: 2933M
[07/24 22:32:18 d2.utils.events]: eta: 0:21:41 iter: 5399
total_loss: 0.1303 loss_cls: 0.02451 loss_box_reg: 0.1073 time:
0.3032 last_time: 0.2720 data_time: 0.0101 last_data_time: 0.0242
lr: 0.00025 max_mem: 2933M
[07/24 22:32:24 d2.utils.events]: eta: 0:21:35 iter: 5419
total_loss: 0.1195 loss_cls: 0.02935 loss_box_reg: 0.09149 time:
0.3033 last_time: 0.2112 data_time: 0.0119 last_data_time: 0.0065
lr: 0.00025 max_mem: 2933M
[07/24 22:32:30 d2.utils.events]: eta: 0:21:21 iter: 5439
total_loss: 0.1442 loss_cls: 0.03037 loss_box_reg: 0.1186 time:
0.3033 last_time: 0.2418 data_time: 0.0104 last_data_time: 0.0067
lr: 0.00025 max_mem: 2933M
[07/24 22:32:37 d2.utils.events]: eta: 0:21:13 iter: 5459
total_loss: 0.1443 loss_cls: 0.02448 loss_box_reg: 0.119 time:
0.3033 last_time: 0.3137 data_time: 0.0196 last_data_time: 0.0223
lr: 0.00025 max_mem: 2933M
[07/24 22:32:43 d2.utils.events]: eta: 0:21:00 iter: 5479
total_loss: 0.1314 loss_cls: 0.02756 loss_box_reg: 0.1001 time:
0.3033 last_time: 0.2499 data_time: 0.0088 last_data_time: 0.0077
lr: 0.00025 max_mem: 2933M
[07/24 22:32:49 d2.utils.events]: eta: 0:20:56 iter: 5499
total_loss: 0.1732 loss_cls: 0.03458 loss_box_reg: 0.1312 time:
0.3033 last_time: 0.4591 data_time: 0.0094 last_data_time: 0.0064
lr: 0.00025 max_mem: 2933M
[07/24 22:32:55 d2.utils.events]: eta: 0:20:50 iter: 5519
total_loss: 0.1451 loss_cls: 0.02485 loss_box_reg: 0.1119 time:
0.3034 last_time: 0.3573 data_time: 0.0120 last_data_time: 0.0072
lr: 0.00025 max_mem: 2933M
[07/24 22:33:01 d2.utils.events]: eta: 0:20:38 iter: 5539
total_loss: 0.1529 loss_cls: 0.03379 loss_box_reg: 0.102 time:
0.3033 last_time: 0.2100 data_time: 0.0086 last_data_time: 0.0078
lr: 0.00025 max_mem: 2933M
[07/24 22:33:08 d2.utils.events]: eta: 0:20:39 iter: 5559
total_loss: 0.1252 loss_cls: 0.03327 loss_box_reg: 0.09874 time:
0.3034 last_time: 0.3803 data_time: 0.0124 last_data_time: 0.0056
lr: 0.00025 max_mem: 2933M
[07/24 22:33:14 d2.utils.events]: eta: 0:20:47 iter: 5579
total_loss: 0.1224 loss_cls: 0.02918 loss_box_reg: 0.09157 time:
0.3035 last_time: 0.3452 data_time: 0.0085 last_data_time: 0.0061
lr: 0.00025 max_mem: 2933M
[07/24 22:33:21 d2.utils.events]: eta: 0:21:01 iter: 5599
total_loss: 0.1189 loss_cls: 0.02293 loss_box_reg: 0.09858 time:
0.3036 last_time: 0.2480 data_time: 0.0142 last_data_time: 0.0080
lr: 0.00025 max_mem: 2933M
[07/24 22:33:26 d2.utils.events]: eta: 0:20:32 iter: 5619
total_loss: 0.1288 loss_cls: 0.02691 loss_box_reg: 0.09753 time:
0.3035 last_time: 0.2410 data_time: 0.0074 last_data_time: 0.0066
lr: 0.00025 max_mem: 2933M
```

```
[07/24 22:33:32 d2.utils.events]: eta: 0:20:27 iter: 5639
total_loss: 0.13 loss_cls: 0.02633 loss_box_reg: 0.1005 time:
0.3035 last_time: 0.5038 data_time: 0.0081 last_data_time: 0.0071
lr: 0.00025 max_mem: 2933M
[07/24 22:33:38 d2.utils.events]: eta: 0:20:17 iter: 5659
total_loss: 0.1209 loss_cls: 0.02396 loss_box_reg: 0.09402 time:
0.3035 last_time: 0.3792 data_time: 0.0091 last_data_time: 0.0087
lr: 0.00025 max_mem: 2933M
[07/24 22:33:44 d2.utils.events]: eta: 0:20:09 iter: 5679
total_loss: 0.1252 loss_cls: 0.02489 loss_box_reg: 0.1 time:
0.3035 last_time: 0.2607 data_time: 0.0112 last_data_time: 0.0086
lr: 0.00025 max_mem: 2933M
[07/24 22:33:52 d2.utils.events]: eta: 0:20:19 iter: 5699
total_loss: 0.1134 loss_cls: 0.02384 loss_box_reg: 0.09082 time:
0.3038 last_time: 0.2462 data_time: 0.0172 last_data_time: 0.0056
lr: 0.00025 max_mem: 2933M
[07/24 22:33:57 d2.utils.events]: eta: 0:19:58 iter: 5719
total_loss: 0.1233 loss_cls: 0.02111 loss_box_reg: 0.096 time:
0.3036 last_time: 0.3414 data_time: 0.0088 last_data_time: 0.0063
lr: 0.00025 max_mem: 2933M
[07/24 22:34:04 d2.utils.events]: eta: 0:20:14 iter: 5739
total_loss: 0.1178 loss_cls: 0.02735 loss_box_reg: 0.08849 time:
0.3037 last_time: 0.4431 data_time: 0.0096 last_data_time: 0.0059
lr: 0.00025 max_mem: 2933M
[07/24 22:34:10 d2.utils.events]: eta: 0:19:57 iter: 5759
total_loss: 0.1202 loss_cls: 0.02783 loss_box_reg: 0.09419 time:
0.3037 last_time: 0.2495 data_time: 0.0080 last_data_time: 0.0086
lr: 0.00025 max_mem: 2933M
[07/24 22:34:16 d2.utils.events]: eta: 0:19:58 iter: 5779
total_loss: 0.1129 loss_cls: 0.02659 loss_box_reg: 0.08231 time:
0.3037 last_time: 0.3738 data_time: 0.0085 last_data_time: 0.0118
lr: 0.00025 max_mem: 2933M
[07/24 22:34:22 d2.utils.events]: eta: 0:19:45 iter: 5799
total_loss: 0.1122 loss_cls: 0.02178 loss_box_reg: 0.09485 time:
0.3037 last_time: 0.2480 data_time: 0.0110 last_data_time: 0.0095
lr: 0.00025 max_mem: 2933M
[07/24 22:34:28 d2.utils.events]: eta: 0:19:43 iter: 5819
total_loss: 0.1142 loss_cls: 0.01989 loss_box_reg: 0.09835 time:
0.3037 last_time: 0.2542 data_time: 0.0075 last_data_time: 0.0079
lr: 0.00025 max_mem: 2933M
[07/24 22:34:34 d2.utils.events]: eta: 0:19:34 iter: 5839
total_loss: 0.1056 loss_cls: 0.02608 loss_box_reg: 0.08217 time:
0.3037 last_time: 0.4515 data_time: 0.0126 last_data_time: 0.0278
lr: 0.00025 max_mem: 2933M
[07/24 22:34:40 d2.utils.events]: eta: 0:19:22 iter: 5859
total_loss: 0.1124 loss_cls: 0.02073 loss_box_reg: 0.09127 time:
0.3037 last_time: 0.2527 data_time: 0.0086 last_data_time: 0.0157
lr: 0.00025 max_mem: 2933M
[07/24 22:34:46 d2.utils.events]: eta: 0:19:11 iter: 5879
```

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total_loss: 0.1229 loss_cls: 0.02447 loss_box_reg: 0.09796 time: 0.3036 last_time: 0.2487 data_time: 0.0092 last_data_time: 0.0079 lr: 0.00025 max_mem: 2933M [07/24 22:34:52 d2.utils.events]: eta: 0:19:05 iter: 5899 total_loss: 0.1175 loss_cls: 0.02418 loss_box_reg: 0.09031 time: 0.3036 last_time: 0.2543 data_time: 0.0160 last_data_time: 0.0073 lr: 0.00025 max_mem: 2933M [07/24 22:34:58 d2.utils.events]: eta: 0:19:02 iter: 5919 total_loss: 0.1042 loss_cls: 0.02095 loss_box_reg: 0.08385 time: 0.3036 last_time: 0.3483 data_time: 0.0079 last_data_time: 0.0084 lr: 0.00025 max_mem: 2933M [07/24 22:35:04 d2.utils.events]: eta: 0:18:59 iter: 5939 total_loss: 0.1047 loss_cls: 0.02176 loss_box_reg: 0.08218 time: 0.3037 last_time: 0.2995 data_time: 0.0135 last_data_time: 0.0216 lr: 0.00025 max_mem: 2933M [07/24 22:35:10 d2.utils.events]: eta: 0:18:52 iter: 5959 total_loss: 0.1057 loss_cls: 0.02181 loss_box_reg: 0.0844 time: 0.3036 last_time: 0.2498 data_time: 0.0104 last_data_time: 0.0073 lr: 0.00025 max_mem: 2933M [07/24 22:35:16 d2.utils.events]: eta: 0:18:46 iter: 5979 total_loss: 0.1044 loss_cls: 0.02561 loss_box_reg: 0.08106 time: 0.3035 last_time: 0.4643 data_time: 0.0077 last_data_time: 0.0061 lr: 0.00025 max_mem: 2933M [07/24 22:35:22 d2.utils.events]: eta: 0:18:41 iter: 5999 total_loss: 0.1214 loss_cls: 0.02387 loss_box_reg: 0.09737 time: 0.3036 last_time: 0.3637 data_time: 0.0158 last_data_time: 0.0085 lr: 0.00025 max_mem: 2933M [07/24 22:35:29 d2.utils.events]: eta: 0:18:52 iter: 6019 total_loss: 0.1387 loss_cls: 0.02598 loss_box_reg: 0.1142 time: 0.3036 last_time: 0.3534 data_time: 0.0094 last_data_time: 0.0089 lr: 0.00025 max_mem: 2933M [07/24 22:35:36 d2.utils.events]: eta: 0:18:46 iter: 6039 total_loss: 0.1344 loss_cls: 0.02561 loss_box_reg: 0.108 time: 0.3038 last_time: 0.2481 data_time: 0.0139 last_data_time: 0.0101 lr: 0.00025 max_mem: 2933M [07/24 22:35:41 d2.utils.events]: eta: 0:18:26 iter: 6059 total_loss: 0.1172 loss_cls: 0.02442 loss_box_reg: 0.09428 time: 0.3037 last_time: 0.2545 data_time: 0.0106 last_data_time: 0.0206 lr: 0.00025 max_mem: 2933M [07/24 22:35:48 d2.utils.events]: eta: 0:18:18 iter: 6079 total_loss: 0.1397 loss_cls: 0.02421 loss_box_reg: 0.1103 time: 0.3039 last_time: 0.3342 data_time: 0.0170 last_data_time: 0.0292 lr: 0.00025 max_mem: 2933M [07/24 22:35:54 d2.utils.events]: eta: 0:18:22 iter: 6099 total_loss: 0.1315 loss_cls: 0.0213 loss_box_reg: 0.105 time: 0.3038 last_time: 0.2439 data_time: 0.0090 last_data_time: 0.0061 lr: 0.00025 max_mem: 2933M [07/24 22:36:00 d2.utils.events]: eta: 0:18:08 iter: 6119 total_loss: 0.1447 loss_cls: 0.02579 loss_box_reg: 0.1162 time:
```

```
0.3038 last_time: 0.2790 data_time: 0.0089 last_data_time: 0.0062
lr: 0.00025 max_mem: 2933M
[07/24 22:36:07 d2.utils.events]: eta: 0:18:02 iter: 6139
total_loss: 0.1188 loss_cls: 0.02114 loss_box_reg: 0.09087 time:
0.3039 last_time: 0.2494 data_time: 0.0091 last_data_time: 0.0073
lr: 0.00025 max_mem: 2933M
[07/24 22:36:12 d2.utils.events]: eta: 0:17:52 iter: 6159
total_loss: 0.1173 loss_cls: 0.02271 loss_box_reg: 0.09084 time:
0.3037 last_time: 0.2421 data_time: 0.0090 last_data_time: 0.0060
lr: 0.00025 max_mem: 2933M
[07/24 22:36:19 d2.utils.events]: eta: 0:17:43 iter: 6179
total_loss: 0.1088 loss_cls: 0.02045 loss_box_reg: 0.08589 time:
0.3038 last_time: 0.4514 data_time: 0.0099 last_data_time: 0.0113
lr: 0.00025 max_mem: 2933M
[07/24 22:36:25 d2.utils.events]: eta: 0:17:32 iter: 6199
total_loss: 0.1485 loss_cls: 0.0259 loss_box_reg: 0.1129 time:
0.3039 last_time: 0.2544 data_time: 0.0135 last_data_time: 0.0069
lr: 0.00025 max_mem: 2933M
[07/24 22:36:31 d2.utils.events]: eta: 0:17:15 iter: 6219
total_loss: 0.1273 loss_cls: 0.02859 loss_box_reg: 0.1003 time:
0.3038 last_time: 0.3602 data_time: 0.0082 last_data_time: 0.0062
lr: 0.00025 max_mem: 2933M
[07/24 22:36:37 d2.utils.events]: eta: 0:17:26 iter: 6239
total_loss: 0.1253 loss_cls: 0.02771 loss_box_reg: 0.09783 time:
0.3039 last_time: 0.2266 data_time: 0.0161 last_data_time: 0.0236
lr: 0.00025 max_mem: 2933M
[07/24 22:36:43 d2.utils.events]: eta: 0:17:17 iter: 6259
total_loss: 0.1232 loss_cls: 0.02161 loss_box_reg: 0.08834 time:
0.3039 last_time: 0.2415 data_time: 0.0090 last_data_time: 0.0060
lr: 0.00025 max_mem: 2933M
[07/24 22:36:50 d2.utils.events]: eta: 0:17:08 iter: 6279
total_loss: 0.1302 loss_cls: 0.02455 loss_box_reg: 0.1057 time:
0.3039 last_time: 0.2604 data_time: 0.0189 last_data_time: 0.0096
lr: 0.00025 max_mem: 2933M
[07/24 22:36:55 d2.utils.events]: eta: 0:17:02 iter: 6299
total_loss: 0.1072 loss_cls: 0.02238 loss_box_reg: 0.08333 time:
0.3038 last_time: 0.2078 data_time: 0.0074 last_data_time: 0.0059
lr: 0.00025 max_mem: 2933M
[07/24 22:37:01 d2.utils.events]: eta: 0:16:39 iter: 6319
total_loss: 0.1068 loss_cls: 0.02141 loss_box_reg: 0.08513 time:
0.3037 last_time: 0.4512 data_time: 0.0116 last_data_time: 0.0118
lr: 0.00025 max_mem: 2933M
[07/24 22:37:07 d2.utils.events]: eta: 0:16:37 iter: 6339
total_loss: 0.1139 loss_cls: 0.02048 loss_box_reg: 0.09313 time:
0.3038 last_time: 0.2502 data_time: 0.0138 last_data_time: 0.0070
lr: 0.00025 max_mem: 2933M
[07/24 22:37:12 d2.utils.events]: eta: 0:16:19 iter: 6359
total_loss: 0.1114 loss_cls: 0.02421 loss_box_reg: 0.0909 time:
0.3037 last_time: 0.2525 data_time: 0.0091 last_data_time: 0.0073
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lr: 0.00025 max_mem: 2933M
[07/24 22:37:19 d2.utils.events]: eta: 0:16:15 iter: 6379
total_loss: 0.1156 loss_cls: 0.01953 loss_box_reg: 0.09709 time:
0.3037 last_time: 0.4632 data_time: 0.0146 last_data_time: 0.0285
lr: 0.00025 max_mem: 2933M
[07/24 22:37:25 d2.utils.events]: eta: 0:16:10 iter: 6399
total_loss: 0.1063 loss_cls: 0.01947 loss_box_reg: 0.08965 time:
0.3037 last_time: 0.2415 data_time: 0.0094 last_data_time: 0.0058
lr: 0.00025 max_mem: 2933M
[07/24 22:37:31 d2.utils.events]: eta: 0:15:55 iter: 6419
total_loss: 0.1068 loss_cls: 0.02148 loss_box_reg: 0.08507 time:
0.3037 last_time: 0.3193 data_time: 0.0096 last_data_time: 0.0279
lr: 0.00025 max_mem: 2933M
[07/24 22:37:37 d2.utils.events]: eta: 0:15:59 iter: 6439
total_loss: 0.1003 loss_cls: 0.02193 loss_box_reg: 0.07982 time:
0.3037 last_time: 0.2268 data_time: 0.0110 last_data_time: 0.0079
lr: 0.00025 max_mem: 2933M
[07/24 22:37:43 d2.utils.events]: eta: 0:15:44 iter: 6459
total_loss: 0.117 loss_cls: 0.02557 loss_box_reg: 0.09271 time:
0.3037 last_time: 0.2524 data_time: 0.0090 last_data_time: 0.0070
lr: 0.00025 max_mem: 2933M
[07/24 22:37:50 d2.utils.events]: eta: 0:15:47 iter: 6479
total_loss: 0.1097 loss_cls: 0.02432 loss_box_reg: 0.08505 time:
0.3038 last_time: 0.2082 data_time: 0.0150 last_data_time: 0.0058
lr: 0.00025 max_mem: 2933M
[07/24 22:37:56 d2.utils.events]: eta: 0:15:41 iter: 6499
total_loss: 0.1067 loss_cls: 0.01831 loss_box_reg: 0.08912 time:
0.3038 last_time: 0.2471 data_time: 0.0078 last_data_time: 0.0086
lr: 0.00025 max_mem: 2933M
[07/24 22:38:03 d2.utils.events]: eta: 0:15:37 iter: 6519
total_loss: 0.1105 loss_cls: 0.01877 loss_box_reg: 0.0919 time:
0.3040 last_time: 0.4682 data_time: 0.0144 last_data_time: 0.0251
lr: 0.00025 max_mem: 2933M
[07/24 22:38:09 d2.utils.events]: eta: 0:15:41 iter: 6539
total_loss: 0.1362 loss_cls: 0.02179 loss_box_reg: 0.1159 time:
0.3039 last_time: 0.2556 data_time: 0.0102 last_data_time: 0.0068
lr: 0.00025 max_mem: 2933M
[07/24 22:38:14 d2.utils.events]: eta: 0:15:17 iter: 6559
total_loss: 0.1181 loss_cls: 0.02317 loss_box_reg: 0.09788 time:
0.3039 last_time: 0.4945 data_time: 0.0100 last_data_time: 0.0060
lr: 0.00025 max_mem: 2933M
[07/24 22:38:21 d2.utils.events]: eta: 0:15:19 iter: 6579
total_loss: 0.1136 loss_cls: 0.0194 loss_box_reg: 0.09518 time:
0.3040 last_time: 0.3827 data_time: 0.0129 last_data_time: 0.0222
lr: 0.00025 max_mem: 2933M
[07/24 22:38:27 d2.utils.events]: eta: 0:15:03 iter: 6599
total_loss: 0.1141 loss_cls: 0.02282 loss_box_reg: 0.09277 time:
0.3040 last_time: 0.2556 data_time: 0.0083 last_data_time: 0.0071
lr: 0.00025 max_mem: 2933M
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[07/24 22:38:34 d2.utils.events]: eta: 0:15:10 iter: 6619
total_loss: 0.1173 loss_cls: 0.02291 loss_box_reg: 0.09353 time:
0.3040 last_time: 0.2223 data_time: 0.0179 last_data_time: 0.0240
lr: 0.00025 max_mem: 2933M
[07/24 22:38:40 d2.utils.events]: eta: 0:15:05 iter: 6639
total_loss: 0.112 loss_cls: 0.02237 loss_box_reg: 0.08297 time:
0.3040 last_time: 0.3665 data_time: 0.0085 last_data_time: 0.0089
lr: 0.00025 max_mem: 2933M
[07/24 22:38:46 d2.utils.events]: eta: 0:14:59 iter: 6659
total_loss: 0.1225 loss_cls: 0.02454 loss_box_reg: 0.09593 time:
0.3041 last_time: 0.4886 data_time: 0.0143 last_data_time: 0.0111
lr: 0.00025 max_mem: 2933M
[07/24 22:38:53 d2.utils.events]: eta: 0:15:11 iter: 6679
total_loss: 0.1004 loss_cls: 0.01842 loss_box_reg: 0.08499 time:
0.3042 last_time: 0.3716 data_time: 0.0191 last_data_time: 0.0062
lr: 0.00025 max_mem: 2933M
[07/24 22:38:59 d2.utils.events]: eta: 0:14:49 iter: 6699
total_loss: 0.09381 loss_cls: 0.01919 loss_box_reg: 0.0768 time:
0.3042 last_time: 0.3381 data_time: 0.0099 last_data_time: 0.0336
lr: 0.00025 max_mem: 2933M
[07/24 22:39:05 d2.utils.events]: eta: 0:14:58 iter: 6719
total_loss: 0.09785 loss_cls: 0.02171 loss_box_reg: 0.08238 time:
0.3042 last_time: 0.3586 data_time: 0.0117 last_data_time: 0.0091
lr: 0.00025 max_mem: 2933M
[07/24 22:39:12 d2.utils.events]: eta: 0:14:52 iter: 6739
total_loss: 0.1079 loss_cls: 0.01876 loss_box_reg: 0.09338 time:
0.3042 last_time: 0.3595 data_time: 0.0092 last_data_time: 0.0205
lr: 0.00025 max_mem: 2933M
[07/24 22:39:18 d2.utils.events]: eta: 0:14:51 iter: 6759
total_loss: 0.1193 loss_cls: 0.0178 loss_box_reg: 0.08773 time:
0.3043 last_time: 0.2620 data_time: 0.0162 last_data_time: 0.0081
lr: 0.00025 max_mem: 2933M
[07/24 22:39:24 d2.utils.events]: eta: 0:14:40 iter: 6779
total_loss: 0.1118 loss_cls: 0.02314 loss_box_reg: 0.09157 time:
0.3042 last_time: 0.2191 data_time: 0.0089 last_data_time: 0.0063
lr: 0.00025 max_mem: 2933M
[07/24 22:39:30 d2.utils.events]: eta: 0:14:35 iter: 6799
total_loss: 0.1152 loss_cls: 0.02608 loss_box_reg: 0.08873 time:
0.3042 last_time: 0.2875 data_time: 0.0138 last_data_time: 0.0057
lr: 0.00025 max_mem: 2933M
[07/24 22:39:35 d2.utils.events]: eta: 0:14:17 iter: 6819
total_loss: 0.1048 loss_cls: 0.02221 loss_box_reg: 0.07989 time:
0.3041 last_time: 0.2433 data_time: 0.0100 last_data_time: 0.0070
lr: 0.00025 max_mem: 2933M
[07/24 22:39:42 d2.utils.events]: eta: 0:14:20 iter: 6839
total_loss: 0.08418 loss_cls: 0.01894 loss_box_reg: 0.06661 time:
0.3042 last_time: 0.2828 data_time: 0.0082 last_data_time: 0.0085
lr: 0.00025 max_mem: 2933M
[07/24 22:39:48 d2.utils.events]: eta: 0:14:20 iter: 6859
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total_loss: 0.09576 loss_cls: 0.02052 loss_box_reg: 0.07713 time:  
0.3043 last_time: 0.3557 data_time: 0.0151 last_data_time: 0.0211  
lr: 0.00025 max_mem: 2933M  
[07/24 22:39:54 d2.utils.events]: eta: 0:14:12 iter: 6879  
total_loss: 0.1065 loss_cls: 0.02433 loss_box_reg: 0.0857 time:  
0.3041 last_time: 0.2548 data_time: 0.0077 last_data_time: 0.0072  
lr: 0.00025 max_mem: 2933M  
[07/24 22:40:01 d2.utils.events]: eta: 0:14:06 iter: 6899  
total_loss: 0.09787 loss_cls: 0.01656 loss_box_reg: 0.07574 time:  
0.3042 last_time: 0.2996 data_time: 0.0154 last_data_time: 0.0252  
lr: 0.00025 max_mem: 2933M  
[07/24 22:40:07 d2.utils.events]: eta: 0:14:05 iter: 6919  
total_loss: 0.09664 loss_cls: 0.0181 loss_box_reg: 0.07905 time:  
0.3042 last_time: 0.3630 data_time: 0.0094 last_data_time: 0.0067  
lr: 0.00025 max_mem: 2933M  
[07/24 22:40:13 d2.utils.events]: eta: 0:14:00 iter: 6939  
total_loss: 0.07986 loss_cls: 0.01534 loss_box_reg: 0.06506 time:  
0.3043 last_time: 0.2953 data_time: 0.0100 last_data_time: 0.0208  
lr: 0.00025 max_mem: 2933M  
[07/24 22:40:19 d2.utils.events]: eta: 0:13:58 iter: 6959  
total_loss: 0.1022 loss_cls: 0.02403 loss_box_reg: 0.07814 time:  
0.3043 last_time: 0.2451 data_time: 0.0127 last_data_time: 0.0087  
lr: 0.00025 max_mem: 2933M  
[07/24 22:40:25 d2.utils.events]: eta: 0:14:02 iter: 6979  
total_loss: 0.1073 loss_cls: 0.02336 loss_box_reg: 0.08302 time:  
0.3043 last_time: 0.2509 data_time: 0.0095 last_data_time: 0.0102  
lr: 0.00025 max_mem: 2933M  
[07/24 22:40:32 d2.utils.events]: eta: 0:13:57 iter: 6999  
total_loss: 0.1102 loss_cls: 0.03218 loss_box_reg: 0.08096 time:  
0.3044 last_time: 0.3826 data_time: 0.0147 last_data_time: 0.0057  
lr: 0.00025 max_mem: 2933M  
[07/24 22:40:38 d2.utils.events]: eta: 0:13:49 iter: 7019  
total_loss: 0.1103 loss_cls: 0.02551 loss_box_reg: 0.08265 time:  
0.3044 last_time: 0.3260 data_time: 0.0084 last_data_time: 0.0099  
lr: 0.00025 max_mem: 2933M  
[07/24 22:40:44 d2.utils.events]: eta: 0:13:42 iter: 7039  
total_loss: 0.1164 loss_cls: 0.0288 loss_box_reg: 0.08613 time:  
0.3044 last_time: 0.3154 data_time: 0.0156 last_data_time: 0.0181  
lr: 0.00025 max_mem: 2933M  
[07/24 22:40:50 d2.utils.events]: eta: 0:13:39 iter: 7059  
total_loss: 0.1245 loss_cls: 0.02225 loss_box_reg: 0.09321 time:  
0.3044 last_time: 0.3845 data_time: 0.0105 last_data_time: 0.0101  
lr: 0.00025 max_mem: 2933M  
[07/24 22:40:57 d2.utils.events]: eta: 0:13:33 iter: 7079  
total_loss: 0.08748 loss_cls: 0.01743 loss_box_reg: 0.07252 time:  
0.3044 last_time: 0.4890 data_time: 0.0086 last_data_time: 0.0060  
lr: 0.00025 max_mem: 2933M  
[07/24 22:41:02 d2.utils.events]: eta: 0:13:28 iter: 7099  
total_loss: 0.1162 loss_cls: 0.02278 loss_box_reg: 0.08796 time:
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0.3044 last_time: 0.2296 data_time: 0.0147 last_data_time: 0.0179
lr: 0.00025 max_mem: 2933M
[07/24 22:41:08 d2.utils.events]: eta: 0:13:23 iter: 7119
total_loss: 0.104 loss_cls: 0.02372 loss_box_reg: 0.07826 time:
0.3043 last_time: 0.2460 data_time: 0.0099 last_data_time: 0.0127
lr: 0.00025 max_mem: 2933M
[07/24 22:41:15 d2.utils.events]: eta: 0:13:21 iter: 7139
total_loss: 0.1205 loss_cls: 0.02636 loss_box_reg: 0.09557 time:
0.3044 last_time: 0.2467 data_time: 0.0106 last_data_time: 0.0102
lr: 0.00025 max_mem: 2933M
[07/24 22:41:21 d2.utils.events]: eta: 0:13:20 iter: 7159
total_loss: 0.1196 loss_cls: 0.02339 loss_box_reg: 0.09364 time:
0.3044 last_time: 0.4944 data_time: 0.0107 last_data_time: 0.0297
lr: 0.00025 max_mem: 2933M
[07/24 22:41:28 d2.utils.events]: eta: 0:13:19 iter: 7179
total_loss: 0.1038 loss_cls: 0.01925 loss_box_reg: 0.08087 time:
0.3046 last_time: 0.4596 data_time: 0.0210 last_data_time: 0.0058
lr: 0.00025 max_mem: 2933M
[07/24 22:41:34 d2.utils.events]: eta: 0:13:07 iter: 7199
total_loss: 0.1015 loss_cls: 0.01833 loss_box_reg: 0.08153 time:
0.3045 last_time: 0.2527 data_time: 0.0082 last_data_time: 0.0080
lr: 0.00025 max_mem: 2933M
[07/24 22:41:40 d2.utils.events]: eta: 0:13:03 iter: 7219
total_loss: 0.1084 loss_cls: 0.02137 loss_box_reg: 0.08443 time:
0.3045 last_time: 0.4630 data_time: 0.0090 last_data_time: 0.0072
lr: 0.00025 max_mem: 2933M
[07/24 22:41:46 d2.utils.events]: eta: 0:12:58 iter: 7239
total_loss: 0.1177 loss_cls: 0.02209 loss_box_reg: 0.0907 time:
0.3046 last_time: 0.1967 data_time: 0.0098 last_data_time: 0.0068
lr: 0.00025 max_mem: 2933M
[07/24 22:41:52 d2.utils.events]: eta: 0:12:52 iter: 7259
total_loss: 0.1043 loss_cls: 0.02025 loss_box_reg: 0.0824 time:
0.3045 last_time: 0.2488 data_time: 0.0083 last_data_time: 0.0083
lr: 0.00025 max_mem: 2933M
[07/24 22:41:59 d2.utils.events]: eta: 0:12:50 iter: 7279
total_loss: 0.1074 loss_cls: 0.02033 loss_box_reg: 0.08647 time:
0.3046 last_time: 0.2506 data_time: 0.0169 last_data_time: 0.0058
lr: 0.00025 max_mem: 2933M
[07/24 22:42:05 d2.utils.events]: eta: 0:12:54 iter: 7299
total_loss: 0.09398 loss_cls: 0.01747 loss_box_reg: 0.07823 time:
0.3046 last_time: 0.2457 data_time: 0.0091 last_data_time: 0.0056
lr: 0.00025 max_mem: 2933M
[07/24 22:42:13 d2.utils.events]: eta: 0:13:00 iter: 7319
total_loss: 0.1231 loss_cls: 0.01757 loss_box_reg: 0.1071 time:
0.3048 last_time: 0.3746 data_time: 0.0146 last_data_time: 0.0186
lr: 0.00025 max_mem: 2933M
[07/24 22:42:18 d2.utils.events]: eta: 0:12:51 iter: 7339
total_loss: 0.1117 loss_cls: 0.01786 loss_box_reg: 0.09215 time:
0.3047 last_time: 0.1964 data_time: 0.0090 last_data_time: 0.0063
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lr: 0.00025 max_mem: 2933M
[07/24 22:42:24 d2.utils.events]: eta: 0:12:52 iter: 7359
total_loss: 0.1217 loss_cls: 0.02077 loss_box_reg: 0.1018 time:
0.3047 last_time: 0.3112 data_time: 0.0121 last_data_time: 0.0121
lr: 0.00025 max_mem: 2933M
[07/24 22:42:31 d2.utils.events]: eta: 0:12:51 iter: 7379
total_loss: 0.09692 loss_cls: 0.01678 loss_box_reg: 0.08298 time:
0.3047 last_time: 0.2560 data_time: 0.0109 last_data_time: 0.0079
lr: 0.00025 max_mem: 2933M
[07/24 22:42:36 d2.utils.events]: eta: 0:12:40 iter: 7399
total_loss: 0.1051 loss_cls: 0.01761 loss_box_reg: 0.08537 time:
0.3047 last_time: 0.3634 data_time: 0.0098 last_data_time: 0.0181
lr: 0.00025 max_mem: 2933M
[07/24 22:42:43 d2.utils.events]: eta: 0:12:43 iter: 7419
total_loss: 0.1069 loss_cls: 0.02201 loss_box_reg: 0.08295 time:
0.3048 last_time: 0.3598 data_time: 0.0150 last_data_time: 0.0061
lr: 0.00025 max_mem: 2933M
[07/24 22:42:49 d2.utils.events]: eta: 0:12:30 iter: 7439
total_loss: 0.1027 loss_cls: 0.0185 loss_box_reg: 0.08448 time:
0.3047 last_time: 0.2155 data_time: 0.0082 last_data_time: 0.0092
lr: 0.00025 max_mem: 2933M
[07/24 22:42:55 d2.utils.events]: eta: 0:12:31 iter: 7459
total_loss: 0.1015 loss_cls: 0.01751 loss_box_reg: 0.07855 time:
0.3048 last_time: 0.2627 data_time: 0.0149 last_data_time: 0.0075
lr: 0.00025 max_mem: 2933M
[07/24 22:43:01 d2.utils.events]: eta: 0:12:25 iter: 7479
total_loss: 0.07802 loss_cls: 0.01516 loss_box_reg: 0.0638 time:
0.3048 last_time: 0.3580 data_time: 0.0097 last_data_time: 0.0078
lr: 0.00025 max_mem: 2933M
[07/24 22:43:08 d2.utils.events]: eta: 0:12:20 iter: 7499
total_loss: 0.1024 loss_cls: 0.01832 loss_box_reg: 0.08326 time:
0.3048 last_time: 0.3247 data_time: 0.0120 last_data_time: 0.0287
lr: 0.00025 max_mem: 2933M
[07/24 22:43:14 d2.utils.events]: eta: 0:12:09 iter: 7519
total_loss: 0.101 loss_cls: 0.01401 loss_box_reg: 0.09108 time:
0.3048 last_time: 0.3834 data_time: 0.0115 last_data_time: 0.0063
lr: 0.00025 max_mem: 2933M
[07/24 22:43:20 d2.utils.events]: eta: 0:12:05 iter: 7539
total_loss: 0.09079 loss_cls: 0.01669 loss_box_reg: 0.078 time:
0.3048 last_time: 0.2531 data_time: 0.0114 last_data_time: 0.0165
lr: 0.00025 max_mem: 2933M
[07/24 22:43:27 d2.utils.events]: eta: 0:12:02 iter: 7559
total_loss: 0.09844 loss_cls: 0.01777 loss_box_reg: 0.08394 time:
0.3049 last_time: 0.2473 data_time: 0.0117 last_data_time: 0.0065
lr: 0.00025 max_mem: 2933M
[07/24 22:43:32 d2.utils.events]: eta: 0:11:46 iter: 7579
total_loss: 0.0965 loss_cls: 0.0186 loss_box_reg: 0.07682 time:
0.3048 last_time: 0.2386 data_time: 0.0097 last_data_time: 0.0081
lr: 0.00025 max_mem: 2933M
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[07/24 22:43:39 d2.utils.events]: eta: 0:11:43 iter: 7599
total_loss: 0.1134 loss_cls: 0.01853 loss_box_reg: 0.09318 time:
0.3049 last_time: 0.3379 data_time: 0.0135 last_data_time: 0.0299
lr: 0.00025 max_mem: 2933M
[07/24 22:43:45 d2.utils.events]: eta: 0:11:36 iter: 7619
total_loss: 0.1051 loss_cls: 0.01668 loss_box_reg: 0.08426 time:
0.3049 last_time: 0.2426 data_time: 0.0093 last_data_time: 0.0060
lr: 0.00025 max_mem: 2933M
[07/24 22:43:51 d2.utils.events]: eta: 0:11:31 iter: 7639
total_loss: 0.1117 loss_cls: 0.01889 loss_box_reg: 0.09213 time:
0.3049 last_time: 0.3073 data_time: 0.0110 last_data_time: 0.0146
lr: 0.00025 max_mem: 2933M
[07/24 22:43:59 d2.utils.events]: eta: 0:11:28 iter: 7659
total_loss: 0.09788 loss_cls: 0.02028 loss_box_reg: 0.07182 time:
0.3051 last_time: 0.3852 data_time: 0.0210 last_data_time: 0.0086
lr: 0.00025 max_mem: 2933M
[07/24 22:44:05 d2.utils.events]: eta: 0:11:16 iter: 7679
total_loss: 0.09676 loss_cls: 0.01874 loss_box_reg: 0.07641 time:
0.3051 last_time: 0.3897 data_time: 0.0089 last_data_time: 0.0071
lr: 0.00025 max_mem: 2933M
[07/24 22:44:11 d2.utils.events]: eta: 0:11:11 iter: 7699
total_loss: 0.1049 loss_cls: 0.02071 loss_box_reg: 0.08352 time:
0.3052 last_time: 0.4974 data_time: 0.0126 last_data_time: 0.0071
lr: 0.00025 max_mem: 2933M
[07/24 22:44:18 d2.utils.events]: eta: 0:11:04 iter: 7719
total_loss: 0.1137 loss_cls: 0.01981 loss_box_reg: 0.08793 time:
0.3052 last_time: 0.3906 data_time: 0.0088 last_data_time: 0.0055
lr: 0.00025 max_mem: 2933M
[07/24 22:44:24 d2.utils.events]: eta: 0:10:57 iter: 7739
total_loss: 0.09079 loss_cls: 0.0172 loss_box_reg: 0.0783 time:
0.3052 last_time: 0.2723 data_time: 0.0107 last_data_time: 0.0079
lr: 0.00025 max_mem: 2933M
[07/24 22:44:30 d2.utils.events]: eta: 0:10:49 iter: 7759
total_loss: 0.1002 loss_cls: 0.0184 loss_box_reg: 0.07792 time:
0.3052 last_time: 0.2508 data_time: 0.0106 last_data_time: 0.0068
lr: 0.00025 max_mem: 2933M
[07/24 22:44:36 d2.utils.events]: eta: 0:10:44 iter: 7779
total_loss: 0.09489 loss_cls: 0.01656 loss_box_reg: 0.07759 time:
0.3052 last_time: 0.2470 data_time: 0.0088 last_data_time: 0.0062
lr: 0.00025 max_mem: 2933M
[07/24 22:44:43 d2.utils.events]: eta: 0:10:42 iter: 7799
total_loss: 0.09809 loss_cls: 0.0126 loss_box_reg: 0.0857 time:
0.3052 last_time: 0.2443 data_time: 0.0172 last_data_time: 0.0089
lr: 0.00025 max_mem: 2933M
[07/24 22:44:48 d2.utils.events]: eta: 0:10:37 iter: 7819
total_loss: 0.09202 loss_cls: 0.01277 loss_box_reg: 0.07314 time:
0.3052 last_time: 0.2089 data_time: 0.0102 last_data_time: 0.0065
lr: 0.00025 max_mem: 2933M
[07/24 22:44:55 d2.utils.events]: eta: 0:10:36 iter: 7839
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total_loss: 0.1082 loss_cls: 0.01722 loss_box_reg: 0.09276 time:  
0.3053 last_time: 0.2890 data_time: 0.0135 last_data_time: 0.0229  
lr: 0.00025 max_mem: 2933M  
[07/24 22:45:01 d2.utils.events]: eta: 0:10:25 iter: 7859  
total_loss: 0.09283 loss_cls: 0.01463 loss_box_reg: 0.07663 time:  
0.3052 last_time: 0.3809 data_time: 0.0094 last_data_time: 0.0068  
lr: 0.00025 max_mem: 2933M  
[07/24 22:45:07 d2.utils.events]: eta: 0:10:22 iter: 7879  
total_loss: 0.09843 loss_cls: 0.01591 loss_box_reg: 0.07784 time:  
0.3052 last_time: 0.2916 data_time: 0.0090 last_data_time: 0.0063  
lr: 0.00025 max_mem: 2933M  
[07/24 22:45:13 d2.utils.events]: eta: 0:10:14 iter: 7899  
total_loss: 0.09227 loss_cls: 0.01382 loss_box_reg: 0.07926 time:  
0.3052 last_time: 0.2637 data_time: 0.0105 last_data_time: 0.0181  
lr: 0.00025 max_mem: 2933M  
[07/24 22:45:19 d2.utils.events]: eta: 0:10:08 iter: 7919  
total_loss: 0.08723 loss_cls: 0.0117 loss_box_reg: 0.07707 time:  
0.3052 last_time: 0.3939 data_time: 0.0069 last_data_time: 0.0057  
lr: 0.00025 max_mem: 2933M  
[07/24 22:45:26 d2.utils.events]: eta: 0:10:05 iter: 7939  
total_loss: 0.1102 loss_cls: 0.01503 loss_box_reg: 0.08983 time:  
0.3053 last_time: 0.3798 data_time: 0.0158 last_data_time: 0.0076  
lr: 0.00025 max_mem: 2933M  
[07/24 22:45:32 d2.utils.events]: eta: 0:09:58 iter: 7959  
total_loss: 0.1173 loss_cls: 0.01471 loss_box_reg: 0.09951 time:  
0.3053 last_time: 0.3738 data_time: 0.0089 last_data_time: 0.0102  
lr: 0.00025 max_mem: 2933M  
[07/24 22:45:38 d2.utils.events]: eta: 0:09:50 iter: 7979  
total_loss: 0.09141 loss_cls: 0.01742 loss_box_reg: 0.07574 time:  
0.3053 last_time: 0.4184 data_time: 0.0145 last_data_time: 0.0180  
lr: 0.00025 max_mem: 2933M  
[07/24 22:45:44 d2.utils.events]: eta: 0:09:39 iter: 7999  
total_loss: 0.09717 loss_cls: 0.01475 loss_box_reg: 0.0796 time:  
0.3053 last_time: 0.2575 data_time: 0.0099 last_data_time: 0.0232  
lr: 0.00025 max_mem: 2933M  
[07/24 22:45:50 d2.utils.events]: eta: 0:09:31 iter: 8019  
total_loss: 0.08821 loss_cls: 0.01231 loss_box_reg: 0.0749 time:  
0.3053 last_time: 0.2569 data_time: 0.0095 last_data_time: 0.0087  
lr: 0.00025 max_mem: 2933M  
[07/24 22:45:57 d2.utils.events]: eta: 0:09:25 iter: 8039  
total_loss: 0.1073 loss_cls: 0.01903 loss_box_reg: 0.09427 time:  
0.3053 last_time: 0.2488 data_time: 0.0171 last_data_time: 0.0072  
lr: 0.00025 max_mem: 2933M  
[07/24 22:46:03 d2.utils.events]: eta: 0:09:18 iter: 8059  
total_loss: 0.09787 loss_cls: 0.0149 loss_box_reg: 0.08132 time:  
0.3053 last_time: 0.2513 data_time: 0.0088 last_data_time: 0.0078  
lr: 0.00025 max_mem: 2933M  
[07/24 22:46:10 d2.utils.events]: eta: 0:09:14 iter: 8079  
total_loss: 0.09322 loss_cls: 0.01454 loss_box_reg: 0.07734 time:  
0.3054 last_time: 0.3867 data_time: 0.0171 last_data_time: 0.0199
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lr: 0.00025 max_mem: 2933M
[07/24 22:46:15 d2.utils.events]: eta: 0:09:06 iter: 8099
total_loss: 0.1044 loss_cls: 0.0159 loss_box_reg: 0.08511 time:
0.3053 last_time: 0.3900 data_time: 0.0079 last_data_time: 0.0089
lr: 0.00025 max_mem: 2933M
[07/24 22:46:22 d2.utils.events]: eta: 0:09:06 iter: 8119
total_loss: 0.1013 loss_cls: 0.01365 loss_box_reg: 0.08479 time:
0.3054 last_time: 0.3309 data_time: 0.0148 last_data_time: 0.0292
lr: 0.00025 max_mem: 2933M
[07/24 22:46:29 d2.utils.events]: eta: 0:09:03 iter: 8139
total_loss: 0.1046 loss_cls: 0.01657 loss_box_reg: 0.09139 time:
0.3055 last_time: 0.2162 data_time: 0.0178 last_data_time: 0.0078
lr: 0.00025 max_mem: 2933M
[07/24 22:46:35 d2.utils.events]: eta: 0:08:58 iter: 8159
total_loss: 0.1027 loss_cls: 0.01497 loss_box_reg: 0.08755 time:
0.3055 last_time: 0.2454 data_time: 0.0083 last_data_time: 0.0066
lr: 0.00025 max_mem: 2933M
[07/24 22:46:42 d2.utils.events]: eta: 0:08:46 iter: 8179
total_loss: 0.09895 loss_cls: 0.01179 loss_box_reg: 0.08448 time:
0.3056 last_time: 0.2430 data_time: 0.0125 last_data_time: 0.0072
lr: 0.00025 max_mem: 2933M
[07/24 22:46:48 d2.utils.events]: eta: 0:08:48 iter: 8199
total_loss: 0.1035 loss_cls: 0.0173 loss_box_reg: 0.0855 time:
0.3056 last_time: 0.3670 data_time: 0.0089 last_data_time: 0.0059
lr: 0.00025 max_mem: 2933M
[07/24 22:46:55 d2.utils.events]: eta: 0:08:45 iter: 8219
total_loss: 0.09108 loss_cls: 0.01655 loss_box_reg: 0.07702 time:
0.3057 last_time: 0.4363 data_time: 0.0113 last_data_time: 0.0130
lr: 0.00025 max_mem: 2933M
[07/24 22:47:01 d2.utils.events]: eta: 0:08:38 iter: 8239
total_loss: 0.0961 loss_cls: 0.01245 loss_box_reg: 0.08053 time:
0.3057 last_time: 0.2415 data_time: 0.0075 last_data_time: 0.0057
lr: 0.00025 max_mem: 2933M
[07/24 22:47:07 d2.utils.events]: eta: 0:08:36 iter: 8259
total_loss: 0.07991 loss_cls: 0.01027 loss_box_reg: 0.06784 time:
0.3057 last_time: 0.3302 data_time: 0.0128 last_data_time: 0.0193
lr: 0.00025 max_mem: 2933M
[07/24 22:47:14 d2.utils.events]: eta: 0:08:25 iter: 8279
total_loss: 0.0944 loss_cls: 0.01486 loss_box_reg: 0.07379 time:
0.3057 last_time: 0.2478 data_time: 0.0122 last_data_time: 0.0057
lr: 0.00025 max_mem: 2933M
[07/24 22:47:19 d2.utils.events]: eta: 0:08:13 iter: 8299
total_loss: 0.07254 loss_cls: 0.01093 loss_box_reg: 0.06235 time:
0.3057 last_time: 0.2518 data_time: 0.0099 last_data_time: 0.0065
lr: 0.00025 max_mem: 2933M
[07/24 22:47:25 d2.utils.events]: eta: 0:08:04 iter: 8319
total_loss: 0.1104 loss_cls: 0.01558 loss_box_reg: 0.08759 time:
0.3056 last_time: 0.2412 data_time: 0.0147 last_data_time: 0.0074
lr: 0.00025 max_mem: 2933M
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[07/24 22:47:31 d2.utils.events]: eta: 0:07:57 iter: 8339
total_loss: 0.09169 loss_cls: 0.01275 loss_box_reg: 0.08224 time:
0.3056 last_time: 0.2490 data_time: 0.0079 last_data_time: 0.0082
lr: 0.00025 max_mem: 2933M
[07/24 22:47:37 d2.utils.events]: eta: 0:07:48 iter: 8359
total_loss: 0.09384 loss_cls: 0.01628 loss_box_reg: 0.07693 time:
0.3056 last_time: 0.3296 data_time: 0.0103 last_data_time: 0.0163
lr: 0.00025 max_mem: 2933M
[07/24 22:47:44 d2.utils.events]: eta: 0:07:42 iter: 8379
total_loss: 0.08234 loss_cls: 0.01443 loss_box_reg: 0.07243 time:
0.3057 last_time: 0.2299 data_time: 0.0143 last_data_time: 0.0192
lr: 0.00025 max_mem: 2933M
[07/24 22:47:49 d2.utils.events]: eta: 0:07:32 iter: 8399
total_loss: 0.104 loss_cls: 0.01393 loss_box_reg: 0.09038 time:
0.3056 last_time: 0.2106 data_time: 0.0087 last_data_time: 0.0056
lr: 0.00025 max_mem: 2933M
[07/24 22:47:56 d2.utils.events]: eta: 0:07:24 iter: 8419
total_loss: 0.1334 loss_cls: 0.02297 loss_box_reg: 0.1104 time:
0.3057 last_time: 0.3848 data_time: 0.0166 last_data_time: 0.0057
lr: 0.00025 max_mem: 2933M
[07/24 22:48:03 d2.utils.events]: eta: 0:07:30 iter: 8439
total_loss: 0.1019 loss_cls: 0.01664 loss_box_reg: 0.08915 time:
0.3057 last_time: 0.2528 data_time: 0.0087 last_data_time: 0.0066
lr: 0.00025 max_mem: 2933M
[07/24 22:48:09 d2.utils.events]: eta: 0:07:19 iter: 8459
total_loss: 0.08954 loss_cls: 0.01798 loss_box_reg: 0.07119 time:
0.3058 last_time: 0.2239 data_time: 0.0104 last_data_time: 0.0068
lr: 0.00025 max_mem: 2933M
[07/24 22:48:15 d2.utils.events]: eta: 0:07:10 iter: 8479
total_loss: 0.1139 loss_cls: 0.02547 loss_box_reg: 0.09189 time:
0.3057 last_time: 0.2449 data_time: 0.0093 last_data_time: 0.0060
lr: 0.00025 max_mem: 2933M
[07/24 22:48:21 d2.utils.events]: eta: 0:07:04 iter: 8499
total_loss: 0.1296 loss_cls: 0.02271 loss_box_reg: 0.1065 time:
0.3058 last_time: 0.3094 data_time: 0.0104 last_data_time: 0.0074
lr: 0.00025 max_mem: 2933M
[07/24 22:48:27 d2.utils.events]: eta: 0:06:58 iter: 8519
total_loss: 0.1036 loss_cls: 0.01383 loss_box_reg: 0.09222 time:
0.3058 last_time: 0.3872 data_time: 0.0102 last_data_time: 0.0156
lr: 0.00025 max_mem: 2933M
[07/24 22:48:33 d2.utils.events]: eta: 0:06:53 iter: 8539
total_loss: 0.09023 loss_cls: 0.01675 loss_box_reg: 0.07714 time:
0.3058 last_time: 0.2614 data_time: 0.0085 last_data_time: 0.0080
lr: 0.00025 max_mem: 2933M
[07/24 22:48:40 d2.utils.events]: eta: 0:06:49 iter: 8559
total_loss: 0.09817 loss_cls: 0.01667 loss_box_reg: 0.0819 time:
0.3058 last_time: 0.3727 data_time: 0.0166 last_data_time: 0.0082
lr: 0.00025 max_mem: 2933M
[07/24 22:48:46 d2.utils.events]: eta: 0:06:47 iter: 8579
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total_loss: 0.09742 loss_cls: 0.01774 loss_box_reg: 0.08093 time:  
0.3058 last_time: 0.2525 data_time: 0.0095 last_data_time: 0.0062  
lr: 0.00025 max_mem: 2933M  
[07/24 22:48:53 d2.utils.events]: eta: 0:06:43 iter: 8599  
total_loss: 0.08514 loss_cls: 0.01465 loss_box_reg: 0.07529 time:  
0.3059 last_time: 0.5060 data_time: 0.0118 last_data_time: 0.0306  
lr: 0.00025 max_mem: 2933M  
[07/24 22:49:00 d2.utils.events]: eta: 0:06:38 iter: 8619  
total_loss: 0.09332 loss_cls: 0.01286 loss_box_reg: 0.07734 time:  
0.3060 last_time: 0.3471 data_time: 0.0145 last_data_time: 0.0078  
lr: 0.00025 max_mem: 2933M  
[07/24 22:49:06 d2.utils.events]: eta: 0:06:31 iter: 8639  
total_loss: 0.09492 loss_cls: 0.01142 loss_box_reg: 0.07857 time:  
0.3060 last_time: 0.2560 data_time: 0.0115 last_data_time: 0.0095  
lr: 0.00025 max_mem: 2933M  
[07/24 22:49:13 d2.utils.events]: eta: 0:06:22 iter: 8659  
total_loss: 0.1049 loss_cls: 0.01544 loss_box_reg: 0.08588 time:  
0.3060 last_time: 0.2439 data_time: 0.0146 last_data_time: 0.0062  
lr: 0.00025 max_mem: 2933M  
[07/24 22:49:18 d2.utils.events]: eta: 0:06:16 iter: 8679  
total_loss: 0.0963 loss_cls: 0.01432 loss_box_reg: 0.08699 time:  
0.3060 last_time: 0.2553 data_time: 0.0093 last_data_time: 0.0186  
lr: 0.00025 max_mem: 2933M  
[07/24 22:49:26 d2.utils.events]: eta: 0:06:13 iter: 8699  
total_loss: 0.09482 loss_cls: 0.01459 loss_box_reg: 0.08265 time:  
0.3061 last_time: 0.2441 data_time: 0.0181 last_data_time: 0.0072  
lr: 0.00025 max_mem: 2933M  
[07/24 22:49:31 d2.utils.events]: eta: 0:06:05 iter: 8719  
total_loss: 0.1008 loss_cls: 0.01344 loss_box_reg: 0.08741 time:  
0.3060 last_time: 0.2474 data_time: 0.0087 last_data_time: 0.0057  
lr: 0.00025 max_mem: 2933M  
[07/24 22:49:37 d2.utils.events]: eta: 0:05:59 iter: 8739  
total_loss: 0.116 loss_cls: 0.0143 loss_box_reg: 0.09958 time:  
0.3060 last_time: 0.3296 data_time: 0.0089 last_data_time: 0.0189  
lr: 0.00025 max_mem: 2933M  
[07/24 22:49:43 d2.utils.events]: eta: 0:05:53 iter: 8759  
total_loss: 0.07754 loss_cls: 0.01268 loss_box_reg: 0.06487 time:  
0.3061 last_time: 0.2497 data_time: 0.0111 last_data_time: 0.0136  
lr: 0.00025 max_mem: 2933M  
[07/24 22:49:50 d2.utils.events]: eta: 0:05:48 iter: 8779  
total_loss: 0.1011 loss_cls: 0.01326 loss_box_reg: 0.092 time:  
0.3061 last_time: 0.4310 data_time: 0.0101 last_data_time: 0.0058  
lr: 0.00025 max_mem: 2933M  
[07/24 22:49:57 d2.utils.events]: eta: 0:05:42 iter: 8799  
total_loss: 0.09641 loss_cls: 0.01571 loss_box_reg: 0.07906 time:  
0.3062 last_time: 0.2476 data_time: 0.0125 last_data_time: 0.0106  
lr: 0.00025 max_mem: 2933M  
[07/24 22:50:03 d2.utils.events]: eta: 0:05:36 iter: 8819  
total_loss: 0.08939 loss_cls: 0.01469 loss_box_reg: 0.07497 time:
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0.3061 last_time: 0.2513 data_time: 0.0094 last_data_time: 0.0119
lr: 0.00025 max_mem: 2933M
[07/24 22:50:09 d2.utils.events]: eta: 0:05:29 iter: 8839
total_loss: 0.1025 loss_cls: 0.01493 loss_box_reg: 0.08704 time:
0.3062 last_time: 0.3772 data_time: 0.0201 last_data_time: 0.0070
lr: 0.00025 max_mem: 2933M
[07/24 22:50:15 d2.utils.events]: eta: 0:05:24 iter: 8859
total_loss: 0.08476 loss_cls: 0.01078 loss_box_reg: 0.07397 time:
0.3062 last_time: 0.3624 data_time: 0.0081 last_data_time: 0.0088
lr: 0.00025 max_mem: 2933M
[07/24 22:50:22 d2.utils.events]: eta: 0:05:19 iter: 8879
total_loss: 0.09132 loss_cls: 0.01285 loss_box_reg: 0.07685 time:
0.3062 last_time: 0.2766 data_time: 0.0084 last_data_time: 0.0063
lr: 0.00025 max_mem: 2933M
[07/24 22:50:28 d2.utils.events]: eta: 0:05:13 iter: 8899
total_loss: 0.09857 loss_cls: 0.01465 loss_box_reg: 0.07914 time:
0.3063 last_time: 0.2454 data_time: 0.0084 last_data_time: 0.0079
lr: 0.00025 max_mem: 2933M
[07/24 22:50:35 d2.utils.events]: eta: 0:05:07 iter: 8919
total_loss: 0.09234 loss_cls: 0.01318 loss_box_reg: 0.08035 time:
0.3063 last_time: 0.4913 data_time: 0.0080 last_data_time: 0.0067
lr: 0.00025 max_mem: 2933M
[07/24 22:50:41 d2.utils.events]: eta: 0:05:01 iter: 8939
total_loss: 0.08845 loss_cls: 0.01332 loss_box_reg: 0.07513 time:
0.3063 last_time: 0.3865 data_time: 0.0099 last_data_time: 0.0058
lr: 0.00025 max_mem: 2933M
[07/24 22:50:47 d2.utils.events]: eta: 0:04:56 iter: 8959
total_loss: 0.08309 loss_cls: 0.01288 loss_box_reg: 0.06464 time:
0.3063 last_time: 0.4035 data_time: 0.0096 last_data_time: 0.0075
lr: 0.00025 max_mem: 2933M
[07/24 22:50:54 d2.utils.events]: eta: 0:04:54 iter: 8979
total_loss: 0.09965 loss_cls: 0.01715 loss_box_reg: 0.08187 time:
0.3064 last_time: 0.2441 data_time: 0.0153 last_data_time: 0.0067
lr: 0.00025 max_mem: 2933M
[07/24 22:51:00 d2.utils.events]: eta: 0:04:47 iter: 8999
total_loss: 0.09276 loss_cls: 0.01349 loss_box_reg: 0.0774 time:
0.3064 last_time: 0.3814 data_time: 0.0087 last_data_time: 0.0145
lr: 0.00025 max_mem: 2933M
[07/24 22:51:06 d2.utils.events]: eta: 0:04:45 iter: 9019
total_loss: 0.08402 loss_cls: 0.01379 loss_box_reg: 0.07219 time:
0.3064 last_time: 0.3302 data_time: 0.0103 last_data_time: 0.0295
lr: 0.00025 max_mem: 2933M
[07/24 22:51:13 d2.utils.events]: eta: 0:04:35 iter: 9039
total_loss: 0.07917 loss_cls: 0.01205 loss_box_reg: 0.06654 time:
0.3064 last_time: 0.3619 data_time: 0.0090 last_data_time: 0.0062
lr: 0.00025 max_mem: 2933M
[07/24 22:51:19 d2.utils.events]: eta: 0:04:33 iter: 9059
total_loss: 0.08255 loss_cls: 0.01215 loss_box_reg: 0.07325 time:
0.3064 last_time: 0.4949 data_time: 0.0124 last_data_time: 0.0089
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lr: 0.00025 max_mem: 2933M
[07/24 22:51:27 d2.utils.events]: eta: 0:04:27 iter: 9079
total_loss: 0.0924 loss_cls: 0.01399 loss_box_reg: 0.08082 time:
0.3066 last_time: 0.2413 data_time: 0.0182 last_data_time: 0.0057
lr: 0.00025 max_mem: 2933M
[07/24 22:51:33 d2.utils.events]: eta: 0:04:21 iter: 9099
total_loss: 0.08889 loss_cls: 0.01507 loss_box_reg: 0.07898 time:
0.3066 last_time: 0.2040 data_time: 0.0092 last_data_time: 0.0080
lr: 0.00025 max_mem: 2933M
[07/24 22:51:39 d2.utils.events]: eta: 0:04:13 iter: 9119
total_loss: 0.08977 loss_cls: 0.01111 loss_box_reg: 0.07892 time:
0.3066 last_time: 0.2554 data_time: 0.0154 last_data_time: 0.0065
lr: 0.00025 max_mem: 2933M
[07/24 22:51:45 d2.utils.events]: eta: 0:04:04 iter: 9139
total_loss: 0.1114 loss_cls: 0.01485 loss_box_reg: 0.09846 time:
0.3066 last_time: 0.2169 data_time: 0.0089 last_data_time: 0.0075
lr: 0.00025 max_mem: 2933M
[07/24 22:51:52 d2.utils.events]: eta: 0:03:59 iter: 9159
total_loss: 0.08336 loss_cls: 0.01215 loss_box_reg: 0.07237 time:
0.3067 last_time: 0.4983 data_time: 0.0128 last_data_time: 0.0060
lr: 0.00025 max_mem: 2933M
[07/24 22:51:58 d2.utils.events]: eta: 0:03:52 iter: 9179
total_loss: 0.0745 loss_cls: 0.01174 loss_box_reg: 0.06418 time:
0.3067 last_time: 0.2419 data_time: 0.0091 last_data_time: 0.0058
lr: 0.00025 max_mem: 2933M
[07/24 22:52:04 d2.utils.events]: eta: 0:03:44 iter: 9199
total_loss: 0.07536 loss_cls: 0.01135 loss_box_reg: 0.06408 time:
0.3066 last_time: 0.4873 data_time: 0.0090 last_data_time: 0.0250
lr: 0.00025 max_mem: 2933M
[07/24 22:52:11 d2.utils.events]: eta: 0:03:38 iter: 9219
total_loss: 0.09189 loss_cls: 0.01171 loss_box_reg: 0.07722 time:
0.3067 last_time: 0.2524 data_time: 0.0150 last_data_time: 0.0158
lr: 0.00025 max_mem: 2933M
[07/24 22:52:16 d2.utils.events]: eta: 0:03:30 iter: 9239
total_loss: 0.08337 loss_cls: 0.01413 loss_box_reg: 0.07087 time:
0.3067 last_time: 0.1973 data_time: 0.0084 last_data_time: 0.0079
lr: 0.00025 max_mem: 2933M
[07/24 22:52:23 d2.utils.events]: eta: 0:03:26 iter: 9259
total_loss: 0.07868 loss_cls: 0.01122 loss_box_reg: 0.06259 time:
0.3067 last_time: 0.3781 data_time: 0.0159 last_data_time: 0.0086
lr: 0.00025 max_mem: 2933M
[07/24 22:52:29 d2.utils.events]: eta: 0:03:20 iter: 9279
total_loss: 0.08626 loss_cls: 0.01187 loss_box_reg: 0.072 time:
0.3067 last_time: 0.2439 data_time: 0.0087 last_data_time: 0.0059
lr: 0.00025 max_mem: 2933M
[07/24 22:52:34 d2.utils.events]: eta: 0:03:15 iter: 9299
total_loss: 0.08419 loss_cls: 0.01282 loss_box_reg: 0.07149 time:
0.3066 last_time: 0.2874 data_time: 0.0119 last_data_time: 0.0151
lr: 0.00025 max_mem: 2933M
```

```
[07/24 22:52:40 d2.utils.events]: eta: 0:03:08 iter: 9319
total_loss: 0.08622 loss_cls: 0.01504 loss_box_reg: 0.07002 time:
0.3066 last_time: 0.2493 data_time: 0.0119 last_data_time: 0.0065
lr: 0.00025 max_mem: 2933M
[07/24 22:52:47 d2.utils.events]: eta: 0:03:04 iter: 9339
total_loss: 0.09042 loss_cls: 0.01182 loss_box_reg: 0.0792 time:
0.3066 last_time: 0.2537 data_time: 0.0088 last_data_time: 0.0065
lr: 0.00025 max_mem: 2933M
[07/24 22:52:54 d2.utils.events]: eta: 0:02:59 iter: 9359
total_loss: 0.08986 loss_cls: 0.01176 loss_box_reg: 0.08033 time:
0.3067 last_time: 0.3964 data_time: 0.0185 last_data_time: 0.0079
lr: 0.00025 max_mem: 2933M
[07/24 22:53:00 d2.utils.events]: eta: 0:02:51 iter: 9379
total_loss: 0.1008 loss_cls: 0.01254 loss_box_reg: 0.08524 time:
0.3067 last_time: 0.2432 data_time: 0.0114 last_data_time: 0.0068
lr: 0.00025 max_mem: 2933M
[07/24 22:53:07 d2.utils.events]: eta: 0:02:50 iter: 9399
total_loss: 0.09576 loss_cls: 0.01113 loss_box_reg: 0.08602 time:
0.3068 last_time: 0.3982 data_time: 0.0164 last_data_time: 0.0095
lr: 0.00025 max_mem: 2933M
[07/24 22:53:13 d2.utils.events]: eta: 0:02:43 iter: 9419
total_loss: 0.07041 loss_cls: 0.01233 loss_box_reg: 0.06108 time:
0.3068 last_time: 0.3826 data_time: 0.0094 last_data_time: 0.0085
lr: 0.00025 max_mem: 2933M
[07/24 22:53:19 d2.utils.events]: eta: 0:02:37 iter: 9439
total_loss: 0.09226 loss_cls: 0.01453 loss_box_reg: 0.07954 time:
0.3068 last_time: 0.3078 data_time: 0.0119 last_data_time: 0.0252
lr: 0.00025 max_mem: 2933M
[07/24 22:53:26 d2.utils.events]: eta: 0:02:32 iter: 9459
total_loss: 0.0827 loss_cls: 0.01227 loss_box_reg: 0.07268 time:
0.3069 last_time: 0.2527 data_time: 0.0106 last_data_time: 0.0063
lr: 0.00025 max_mem: 2933M
[07/24 22:53:33 d2.utils.events]: eta: 0:02:28 iter: 9479
total_loss: 0.08574 loss_cls: 0.01242 loss_box_reg: 0.07374 time:
0.3069 last_time: 0.4819 data_time: 0.0088 last_data_time: 0.0055
lr: 0.00025 max_mem: 2933M
[07/24 22:53:39 d2.utils.events]: eta: 0:02:23 iter: 9499
total_loss: 0.08274 loss_cls: 0.01268 loss_box_reg: 0.07248 time:
0.3070 last_time: 0.2161 data_time: 0.0103 last_data_time: 0.0059
lr: 0.00025 max_mem: 2933M
[07/24 22:53:45 d2.utils.events]: eta: 0:02:17 iter: 9519
total_loss: 0.07444 loss_cls: 0.01242 loss_box_reg: 0.0642 time:
0.3069 last_time: 0.2113 data_time: 0.0090 last_data_time: 0.0085
lr: 0.00025 max_mem: 2933M
[07/24 22:53:53 d2.utils.events]: eta: 0:02:14 iter: 9539
total_loss: 0.08594 loss_cls: 0.01436 loss_box_reg: 0.07421 time:
0.3071 last_time: 0.2866 data_time: 0.0189 last_data_time: 0.0275
lr: 0.00025 max_mem: 2933M
[07/24 22:53:59 d2.utils.events]: eta: 0:02:06 iter: 9559
```

```
total_loss: 0.08 loss_cls: 0.01175 loss_box_reg: 0.06992 time:  
0.3071 last_time: 0.2474 data_time: 0.0093 last_data_time: 0.0097  
lr: 0.00025 max_mem: 2933M  
[07/24 22:54:06 d2.utils.events]: eta: 0:02:02 iter: 9579  
total_loss: 0.08256 loss_cls: 0.01167 loss_box_reg: 0.06872 time:  
0.3072 last_time: 0.4976 data_time: 0.0131 last_data_time: 0.0090  
lr: 0.00025 max_mem: 2933M  
[07/24 22:54:12 d2.utils.events]: eta: 0:01:55 iter: 9599  
total_loss: 0.08566 loss_cls: 0.01015 loss_box_reg: 0.07385 time:  
0.3072 last_time: 0.3763 data_time: 0.0094 last_data_time: 0.0074  
lr: 0.00025 max_mem: 2933M  
[07/24 22:54:18 d2.utils.events]: eta: 0:01:48 iter: 9619  
total_loss: 0.09242 loss_cls: 0.01528 loss_box_reg: 0.07667 time:  
0.3072 last_time: 0.3191 data_time: 0.0109 last_data_time: 0.0193  
lr: 0.00025 max_mem: 2933M  
[07/24 22:54:25 d2.utils.events]: eta: 0:01:43 iter: 9639  
total_loss: 0.07695 loss_cls: 0.0126 loss_box_reg: 0.06419 time:  
0.3073 last_time: 0.2540 data_time: 0.0097 last_data_time: 0.0067  
lr: 0.00025 max_mem: 2933M  
[07/24 22:54:31 d2.utils.events]: eta: 0:01:37 iter: 9659  
total_loss: 0.08914 loss_cls: 0.01338 loss_box_reg: 0.07398 time:  
0.3072 last_time: 0.2277 data_time: 0.0087 last_data_time: 0.0101  
lr: 0.00025 max_mem: 2933M  
[07/24 22:54:38 d2.utils.events]: eta: 0:01:33 iter: 9679  
total_loss: 0.1003 loss_cls: 0.01265 loss_box_reg: 0.09235 time:  
0.3073 last_time: 0.3850 data_time: 0.0149 last_data_time: 0.0062  
lr: 0.00025 max_mem: 2933M  
[07/24 22:54:44 d2.utils.events]: eta: 0:01:25 iter: 9699  
total_loss: 0.08917 loss_cls: 0.01425 loss_box_reg: 0.06954 time:  
0.3073 last_time: 0.2494 data_time: 0.0092 last_data_time: 0.0081  
lr: 0.00025 max_mem: 2933M  
[07/24 22:54:51 d2.utils.events]: eta: 0:01:20 iter: 9719  
total_loss: 0.08856 loss_cls: 0.01508 loss_box_reg: 0.07261 time:  
0.3074 last_time: 0.2269 data_time: 0.0135 last_data_time: 0.0098  
lr: 0.00025 max_mem: 2933M  
[07/24 22:54:57 d2.utils.events]: eta: 0:01:14 iter: 9739  
total_loss: 0.07055 loss_cls: 0.01136 loss_box_reg: 0.05932 time:  
0.3073 last_time: 0.3588 data_time: 0.0092 last_data_time: 0.0092  
lr: 0.00025 max_mem: 2933M  
[07/24 22:55:03 d2.utils.events]: eta: 0:01:09 iter: 9759  
total_loss: 0.0813 loss_cls: 0.01314 loss_box_reg: 0.06909 time:  
0.3074 last_time: 0.5611 data_time: 0.0145 last_data_time: 0.0114  
lr: 0.00025 max_mem: 2933M  
[07/24 22:55:09 d2.utils.events]: eta: 0:01:03 iter: 9779  
total_loss: 0.08991 loss_cls: 0.01129 loss_box_reg: 0.07992 time:  
0.3074 last_time: 0.3800 data_time: 0.0102 last_data_time: 0.0073  
lr: 0.00025 max_mem: 2933M  
[07/24 22:55:16 d2.utils.events]: eta: 0:00:57 iter: 9799  
total_loss: 0.0935 loss_cls: 0.01286 loss_box_reg: 0.07943 time:
```

```
0.3074 last_time: 0.3081 data_time: 0.0100 last_data_time: 0.0226
lr: 0.00025 max_mem: 2933M
[07/24 22:55:22 d2.utils.events]: eta: 0:00:52 iter: 9819
total_loss: 0.1106 loss_cls: 0.01203 loss_box_reg: 0.0917 time:
0.3075 last_time: 0.2252 data_time: 0.0130 last_data_time: 0.0070
lr: 0.00025 max_mem: 2933M
[07/24 22:55:28 d2.utils.events]: eta: 0:00:45 iter: 9839
total_loss: 0.08427 loss_cls: 0.01256 loss_box_reg: 0.06919 time:
0.3074 last_time: 0.2423 data_time: 0.0088 last_data_time: 0.0069
lr: 0.00025 max_mem: 2933M
[07/24 22:55:35 d2.utils.events]: eta: 0:00:40 iter: 9859
total_loss: 0.07441 loss_cls: 0.01004 loss_box_reg: 0.06205 time:
0.3075 last_time: 0.2495 data_time: 0.0148 last_data_time: 0.0084
lr: 0.00025 max_mem: 2933M
[07/24 22:55:41 d2.utils.events]: eta: 0:00:34 iter: 9879
total_loss: 0.0832 loss_cls: 0.01001 loss_box_reg: 0.07405 time:
0.3075 last_time: 0.2552 data_time: 0.0075 last_data_time: 0.0165
lr: 0.00025 max_mem: 2933M
[07/24 22:55:47 d2.utils.events]: eta: 0:00:28 iter: 9899
total_loss: 0.07641 loss_cls: 0.01195 loss_box_reg: 0.06411 time:
0.3075 last_time: 0.3278 data_time: 0.0149 last_data_time: 0.0276
lr: 0.00025 max_mem: 2933M
[07/24 22:55:53 d2.utils.events]: eta: 0:00:22 iter: 9919
total_loss: 0.1108 loss_cls: 0.01495 loss_box_reg: 0.09145 time:
0.3074 last_time: 0.2458 data_time: 0.0098 last_data_time: 0.0062
lr: 0.00025 max_mem: 2933M
[07/24 22:55:59 d2.utils.events]: eta: 0:00:16 iter: 9939
total_loss: 0.07684 loss_cls: 0.01243 loss_box_reg: 0.06554 time:
0.3074 last_time: 0.3034 data_time: 0.0111 last_data_time: 0.0168
lr: 0.00025 max_mem: 2933M
[07/24 22:56:05 d2.utils.events]: eta: 0:00:11 iter: 9959
total_loss: 0.08979 loss_cls: 0.01403 loss_box_reg: 0.07487 time:
0.3074 last_time: 0.2449 data_time: 0.0171 last_data_time: 0.0093
lr: 0.00025 max_mem: 2933M
[07/24 22:56:11 d2.utils.events]: eta: 0:00:05 iter: 9979
total_loss: 0.09147 loss_cls: 0.0133 loss_box_reg: 0.07524 time:
0.3074 last_time: 0.3385 data_time: 0.0094 last_data_time: 0.0055
lr: 0.00025 max_mem: 2933M
[07/24 22:56:21 d2.utils.events]: eta: 0:00:00 iter: 9999
total_loss: 0.103 loss_cls: 0.01763 loss_box_reg: 0.0859 time:
0.3075 last_time: 0.3437 data_time: 0.0107 last_data_time: 0.0245
lr: 0.00025 max_mem: 2933M
[07/24 22:56:22 d2.engine.hooks]: Overall training speed: 9998
iterations in 0:51:14 (0.3075 s / it)
[07/24 22:56:22 d2.engine.hooks]: Total training time: 0:51:29
(0:00:15 on hooks)

# Look at training curves in tensorboard:
%load_ext tensorboard
%tensorboard --logdir output
```

```

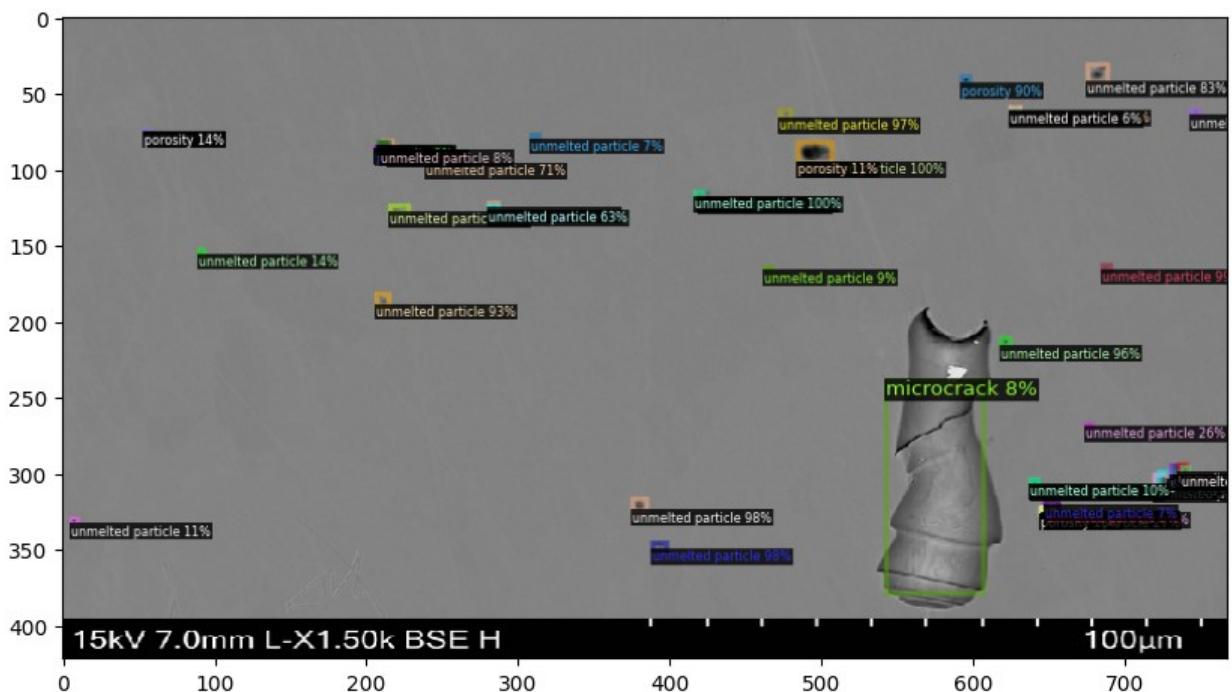
<IPython.core.display.Javascript object>

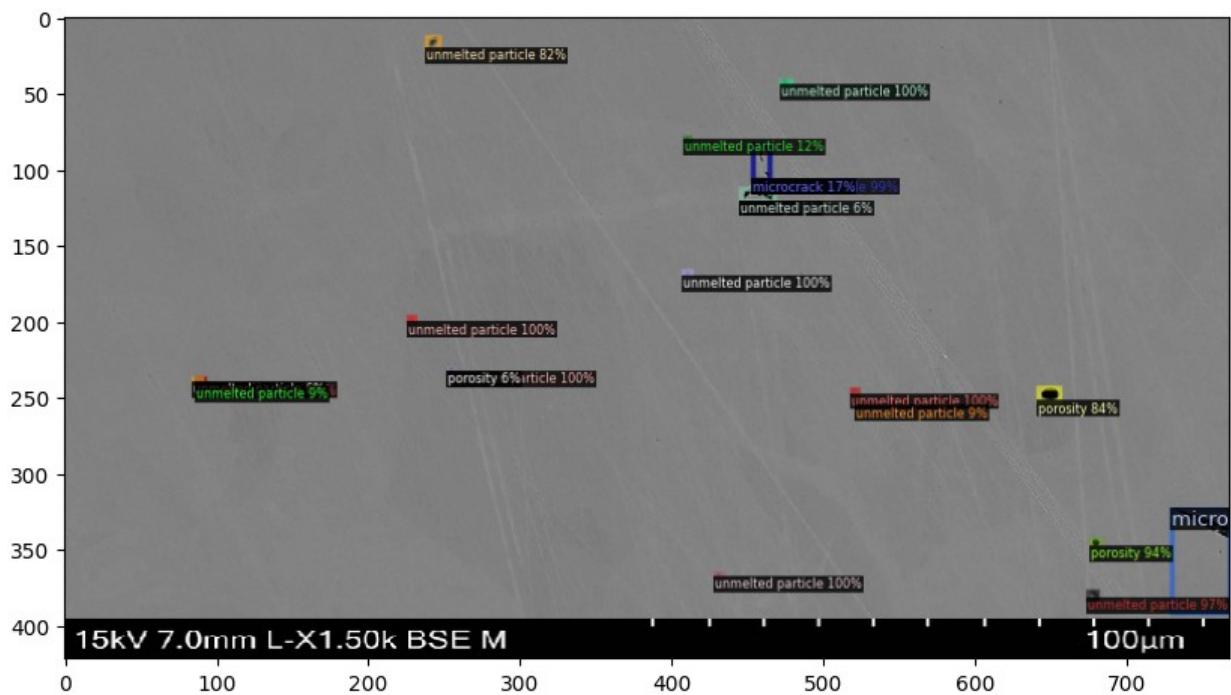
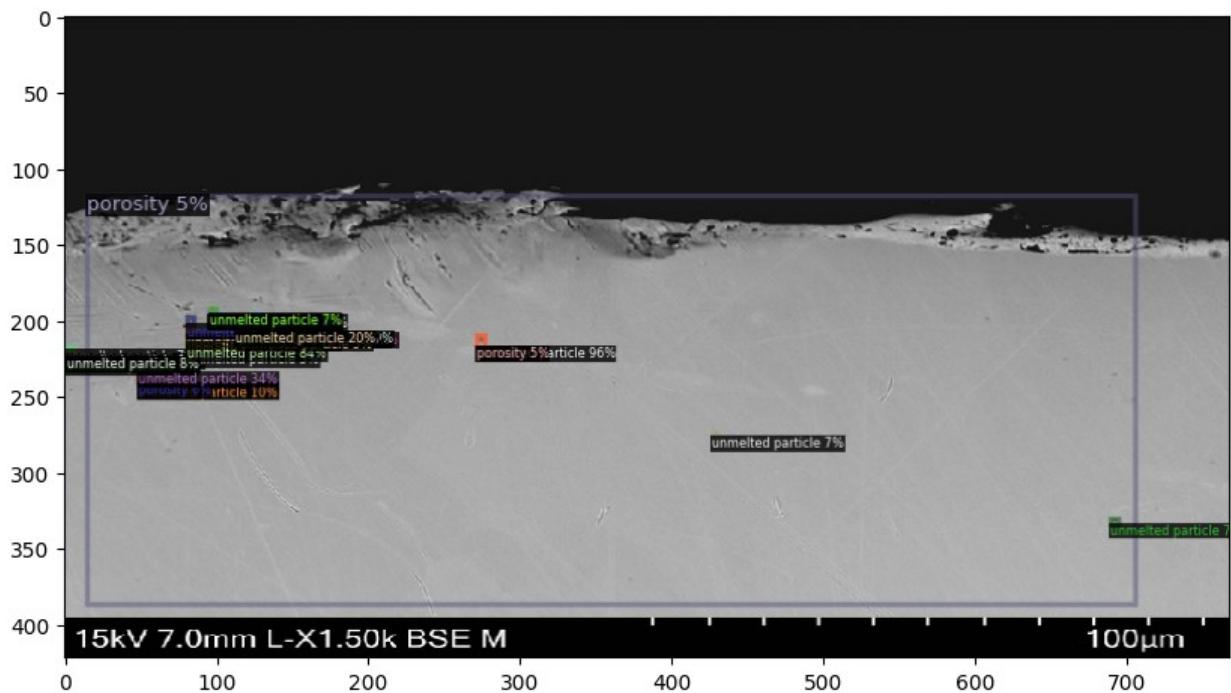
cfg.MODEL.WEIGHTS = os.path.join(cfg.OUTPUT_DIR, "model_final.pth")
cfg.MODEL.ROI_HEADS.SCORE_THRESH_TEST = 0.5
cfg.DATASETS.TEST = ("p_test", )
predictor = DefaultPredictor(cfg)

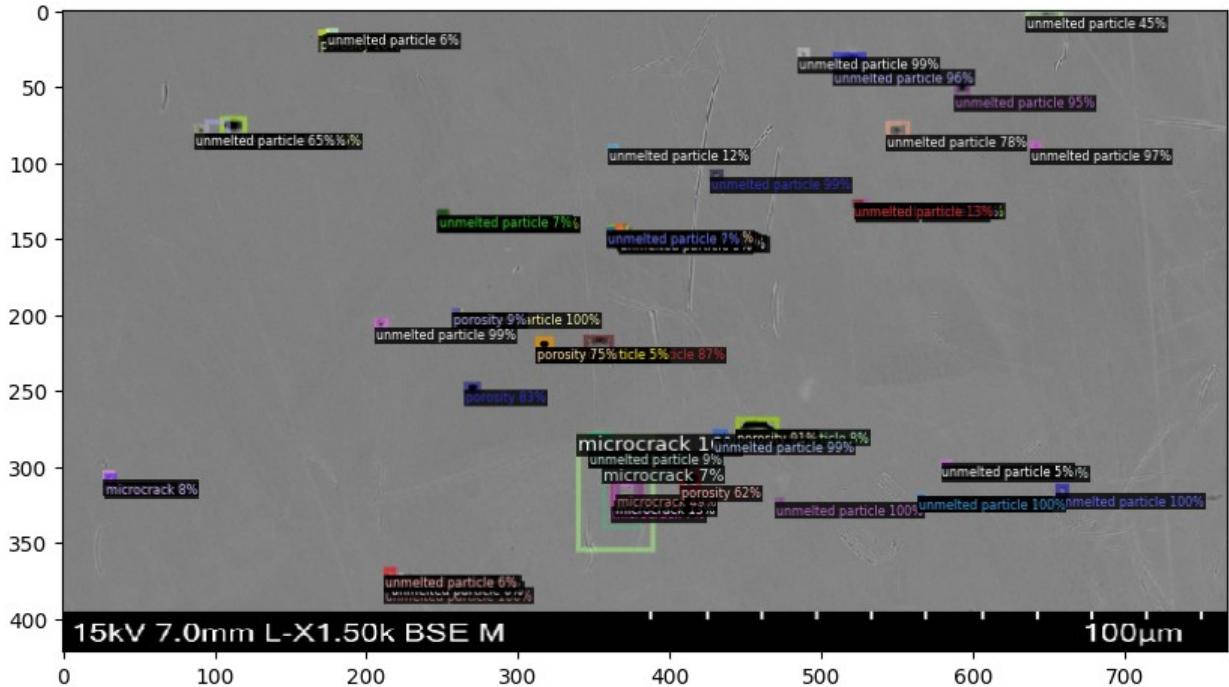
[07/24 22:57:30 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from ./output/model_final.pth ...

from detectron2.utils.visualizer import ColorMode
dataset_dicts = get_r_dicts('/content/drive/MyDrive/Mahabub/train')
for d in random.sample(dataset_dicts, 4):
    im = cv2.imread(d["file_name"])
    outputs = predictor(im)
    v = Visualizer(im[:, :, ::-1],
                   metadata=r_metadata,
                   scale=0.8,
                   instance_mode=ColorMode.IMAGE_BW # remove the
    colors of unsegmented pixels
    )
    v = v.draw_instance_predictions(outputs["instances"].to("cpu"))
    plt.figure(figsize = (10, 10))
    plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1],
    cv2.COLOR_BGR2RGB))
    plt.show()

```



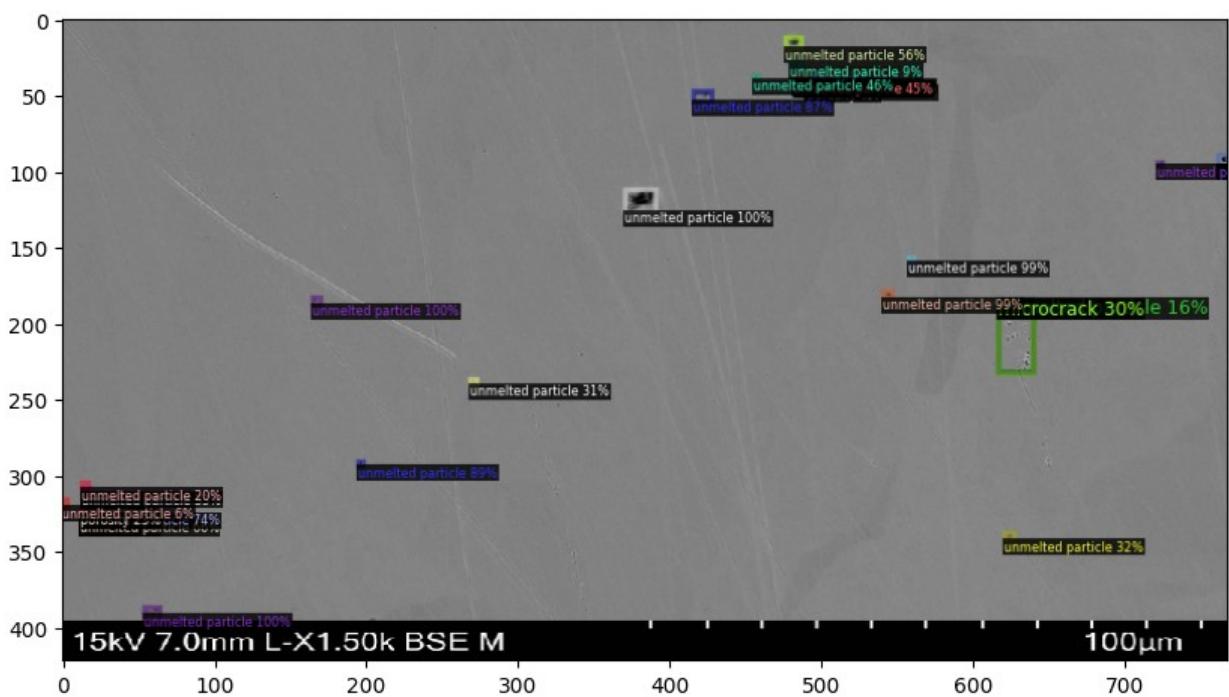
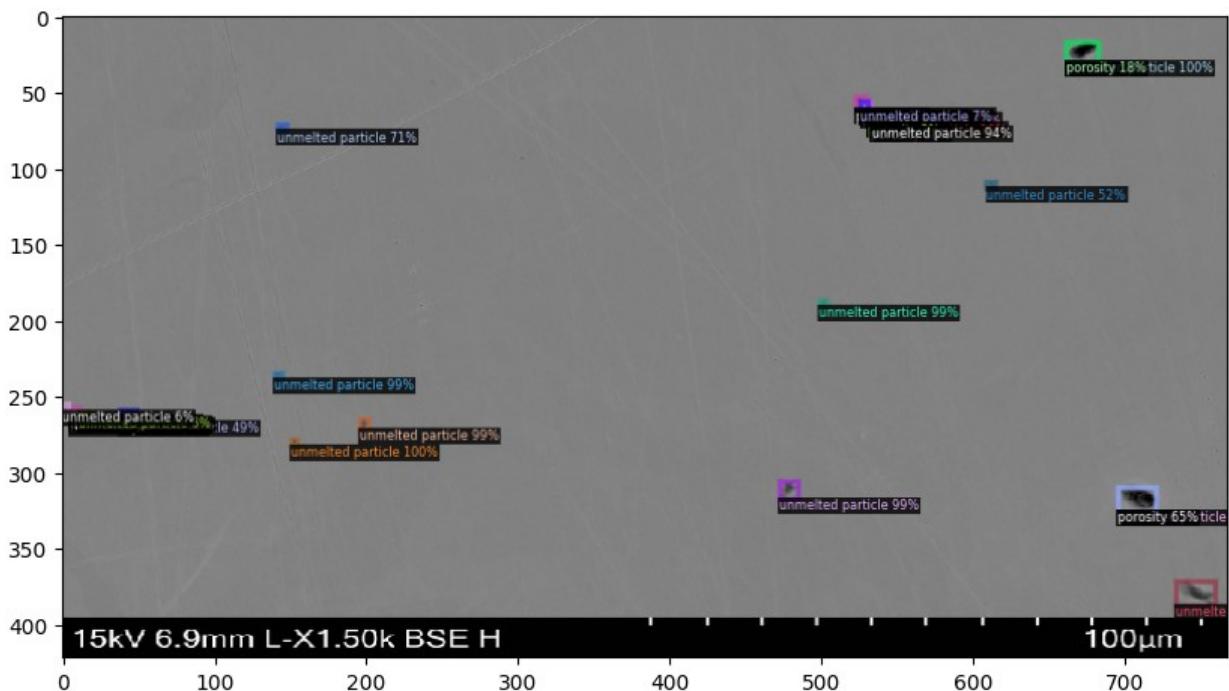


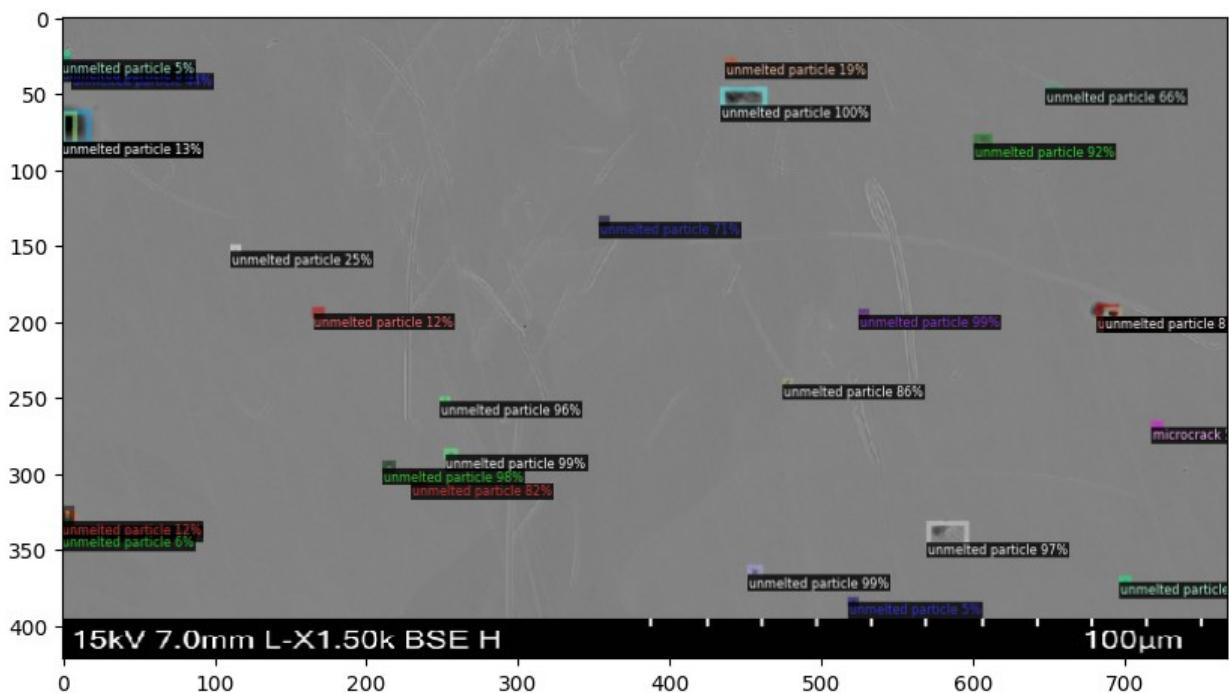
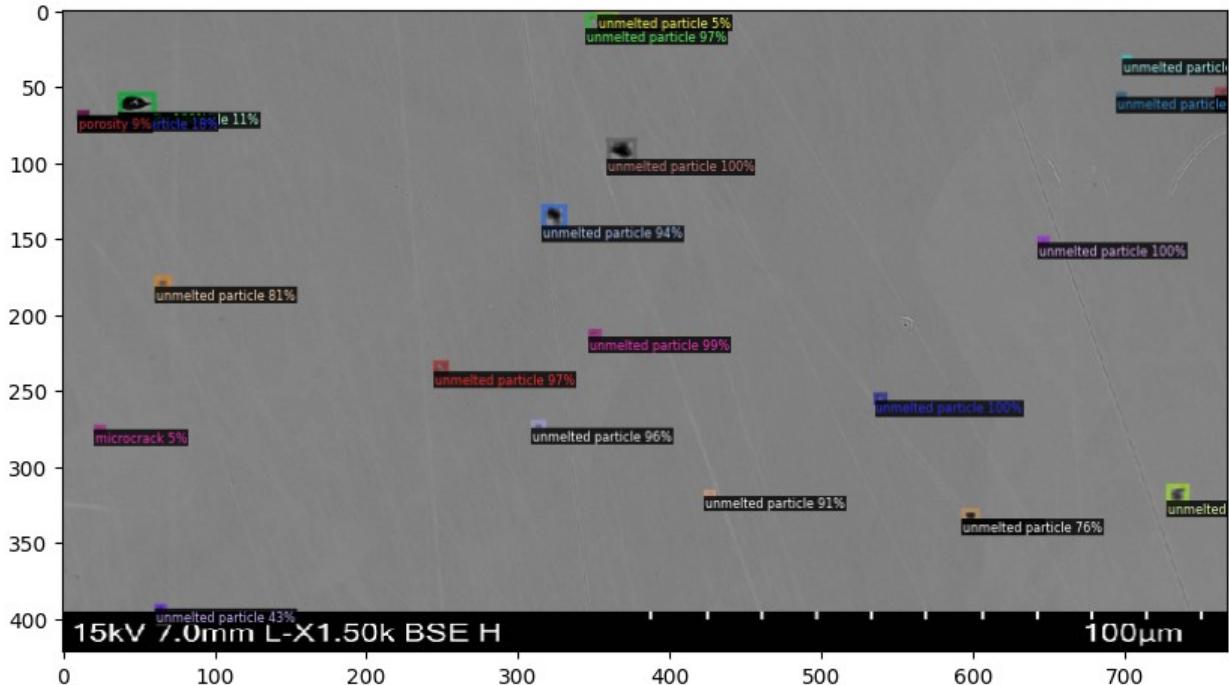


```

from detectron2.utils.visualizer import ColorMode
dataset_dicts = get_r_dicts('/content/drive/MyDrive/Mahabub/test')
for d in random.sample(dataset_dicts, 4):
    im = cv2.imread(d["file_name"])
    outputs = predictor(im)
    v = Visualizer(im[:, :, ::-1],
                   metadata=r_metadata,
                   scale=0.8,
                   instance_mode=ColorMode.IMAGE_BW # remove the
    colors of unsegmented pixels
    )
    v = v.draw_instance_predictions(outputs["instances"].to("cpu"))
    plt.figure(figsize = (10, 10))
    plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1],
    cv2.COLOR_BGR2RGB))
    plt.show()

```





```

from detectron2.evaluation import COCOEvaluator, inference_on_dataset
from detectron2.data import build_detection_test_loader
evaluator = COCOEvaluator("p_train", ['bbox'], False,
output_dir="../output/")
val_loader = build_detection_test_loader(cfg, "p_train")
print(inference_on_dataset(predictor.model, val_loader, evaluator))

```

```
[07/24 22:58:07 d2.evaluation.coco_evaluation]: Trying to convert
'p_train' to COCO format ...
[07/24 22:58:07 d2.data.datasets.coco]: Converting annotations of
dataset 'p_train' to COCO format ...
[07/24 22:58:08 d2.data.datasets.coco]: Converting dataset dicts into
COCO format
[07/24 22:58:08 d2.data.datasets.coco]: Conversion finished, #images:
42, #annotations: 715
[07/24 22:58:08 d2.data.datasets.coco]: Caching COCO format
annotations at './output/p_train_coco_format.json' ...
[07/24 22:58:08 d2.data.dataset_mapper]: [DatasetMapper] Augmentations
used in inference: [ResizeShortestEdge(short_edge_length=(800, 800),
max_size=1333, sample_style='choice')]
[07/24 22:58:08 d2.data.common]: Serializing the dataset using: <class
'detectron2.data.common._TorchSerializedList'>
[07/24 22:58:08 d2.data.common]: Serializing 42 elements to byte
tensors and concatenating them all ...
[07/24 22:58:08 d2.data.common]: Serialized dataset takes 0.16 MiB
[07/24 22:58:08 d2.evaluation.evaluator]: Start inference on 42
batches
[07/24 22:58:09 d2.evaluation.evaluator]: Inference done 11/42.
Dataloading: 0.0020 s/iter. Inference: 0.0580 s/iter. Eval: 0.0005
s/iter. Total: 0.0605 s/iter. ETA=0:00:01
[07/24 22:58:11 d2.evaluation.evaluator]: Total inference time:
0:00:02.269933 (0.061350 s / iter per device, on 1 devices)
[07/24 22:58:11 d2.evaluation.evaluator]: Total inference pure compute
time: 0:00:02 (0.055934 s / iter per device, on 1 devices)
[07/24 22:58:11 d2.evaluation.coco_evaluation]: Preparing results for
COCO format ...
[07/24 22:58:11 d2.evaluation.coco_evaluation]: Saving results to
./output/coco_instances_results.json
[07/24 22:58:11 d2.evaluation.coco_evaluation]: Evaluating predictions
with unofficial COCO API...
Loading and preparing results...
DONE (t=0.00s)
creating index...
index created!
[07/24 22:58:11 d2.evaluation.fast_eval_api]: Evaluate annotation type
*bbox*
[07/24 22:58:11 d2.evaluation.fast_eval_api]: COCOeval_opt.evaluate()
finished in 0.03 seconds.
[07/24 22:58:11 d2.evaluation.fast_eval_api]: Accumulating evaluation
results...
[07/24 22:58:11 d2.evaluation.fast_eval_api]:
COCOeval_opt.accumulate() finished in 0.01 seconds.
  Average Precision (AP) @[ IoU=0.50:0.95 | area= all |
maxDets=100 ] = 0.796
  Average Precision (AP) @[ IoU=0.50 | area= all |
maxDets=100 ] = 0.930
  Average Precision (AP) @[ IoU=0.75 | area= all |
```

```

maxDets=100 ] = 0.884
Average Precision (AP) @[ IoU=0.50:0.95 | area= small |
maxDets=100 ] = 0.783
Average Precision (AP) @[ IoU=0.50:0.95 | area=medium |
maxDets=100 ] = 0.993
Average Precision (AP) @[ IoU=0.50:0.95 | area= large |
maxDets=100 ] = -1.000
Average Recall      (AR) @[ IoU=0.50:0.95 | area= all | maxDets=
1 ] = 0.344
Average Recall      (AR) @[ IoU=0.50:0.95 | area= all | maxDets=
10 ] = 0.736
Average Recall     (AR) @[ IoU=0.50:0.95 | area= all |
maxDets=100 ] = 0.841
Average Recall     (AR) @[ IoU=0.50:0.95 | area= small |
maxDets=100 ] = 0.828
Average Recall     (AR) @[ IoU=0.50:0.95 | area=medium |
maxDets=100 ] = 0.996
Average Recall     (AR) @[ IoU=0.50:0.95 | area= large |
maxDets=100 ] = -1.000
[07/24 22:58:11 d2.evaluation.coco_evaluation]: Evaluation results for
bbox:
| AP      | AP50    | AP75    | APs     | APm     | APl     |
| :----- | :----- | :----- | :----- | :----- | :----- |
| 79.631 | 93.017 | 88.369 | 78.309 | 99.315 | nan     |
[07/24 22:58:11 d2.evaluation.coco_evaluation]: Some metrics cannot be
computed and is shown as NaN.
[07/24 22:58:11 d2.evaluation.coco_evaluation]: Per-category bbox AP:
| category        | AP       | category        | AP       | category        | AP       |
| :----- | :----- | :----- | :----- | :----- | :----- |
| unmelted particle | 72.335 | porosity      | 85.291 | microcrack   | 81.267 |
OrderedDict([('bbox', {'AP': 79.63094120882792, 'AP50':
93.01745525250952, 'AP75': 88.36902878343558, 'APs': 78.3088985806826,
'APm': 99.31518151815182, 'APl': nan, 'AP-unmelted particle':
72.33533579822209, 'AP-porosity': 85.29098617809666, 'AP-microcrack':
81.26650165016503}))])

```

```
!python -m pip install  
'git+https://github.com/facebookresearch/detectron2.git'  
  
Collecting git+https://github.com/facebookresearch/detectron2.git  
  Cloning https://github.com/facebookresearch/detectron2.git to  
/tmp/pip-req-build-7fa8zt8u  
    Running command git clone --filter=blob:none --quiet  
https://github.com/facebookresearch/detectron2.git /tmp/pip-req-build-  
7fa8zt8u  
      Resolved https://github.com/facebookresearch/detectron2.git to  
commit 57bdb21249d5418c130d54e2ebdc94dda7a4c01a  
      Preparing metadata (setup.py) ... ent already satisfied: Pillow>=7.1  
in /usr/local/lib/python3.10/dist-packages (from detectron2==0.6)  
(9.4.0)  
Requirement already satisfied: matplotlib in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (3.7.1)  
Requirement already satisfied: pycocotools>=2.0.2 in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.0.6)  
Requirement already satisfied: termcolor>=1.1 in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.3.0)  
Collecting yacs>=0.1.8 (from detectron2==0.6)  
  Downloading yacs-0.1.8-py3-none-any.whl (14 kB)  
Requirement already satisfied: tabulate in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (0.9.0)  
Requirement already satisfied:云cloudpickle in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.2.1)  
Requirement already satisfied: tqdm>4.29.0 in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6)  
(4.65.0)  
Requirement already satisfied: tensorboard in  
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6)  
(2.12.3)  
Collecting fvcore<0.1.6,>=0.1.5 (from detectron2==0.6)  
  Downloading fvcore-0.1.5.post20221221.tar.gz (50 kB)  
----- 50.2/50.2 kB 2.3 MB/s eta  
0:00:00  
etadata (setup.py) ... detectron2==0.6)  
  Downloading iopath-0.1.9-py3-none-any.whl (27 kB)  
Collecting omegaconf>=2.1 (from detectron2==0.6)  
  Downloading omegaconf-2.3.0-py3-none-any.whl (79 kB)  
----- 79.5/79.5 kB 3.9 MB/s eta  
0:00:00  
detectron2==0.6)  
  Downloading hydra_core-1.3.2-py3-none-any.whl (154 kB)  
----- 154.5/154.5 kB 16.4 MB/s eta  
0:00:00  
detectron2==0.6)  
  Downloading black-23.7.0-cp310-cp310-  
manylinux_2_17_x86_64.manylinux2014_x86_64.whl (1.7 MB)  
----- 1.7/1.7 MB 8.8 MB/s eta
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0:00:00
ent already satisfied: packaging in /usr/local/lib/python3.10/dist-
packages (from detectron2==0.6) (23.1)
Requirement already satisfied: numpy in
/usr/local/lib/python3.10/dist-packages (from fvcore<0.1.6,>=0.1.5-
>detectron2==0.6) (1.22.4)
Requirement already satisfied: pyyaml>=5.1 in
/usr/local/lib/python3.10/dist-packages (from fvcore<0.1.6,>=0.1.5-
>detectron2==0.6) (6.0.1)
Collecting antlr4-python3-runtime==4.9.* (from hydra-core>=1.1-
>detectron2==0.6)
  Downloading antlr4-python3-runtime-4.9.3.tar.gz (117 kB)
  ━━━━━━━━━━━━━━━━━━━━ 117.0/117.0 kB 13.8 MB/s eta
0:00:00
etadata (setup.py) ... iopath<0.1.10,>=0.1.7->detectron2==0.6)
  Downloading portalocker-2.7.0-py2.py3-none-any.whl (15 kB)
Requirement already satisfied: contourpy>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (1.1.0)
Requirement already satisfied: cycler>=0.10 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (0.11.0)
Requirement already satisfied: fonttools>=4.22.0 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (4.41.1)
Requirement already satisfied: kiwisolver>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (1.4.4)
Requirement already satisfied: pyparsing>=2.3.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (3.1.0)
Requirement already satisfied: python-dateutil>=2.7 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (2.8.2)
Requirement already satisfied: click>=8.0.0 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6)
(8.1.6)
Collecting mypy-extensions>=0.4.3 (from black->detectron2==0.6)
  Downloading mypy_extensions-1.0.0-py3-none-any.whl (4.7 kB)
Collecting pathspec>=0.9.0 (from black->detectron2==0.6)
  Downloading pathspec-0.11.2-py3-none-any.whl (29 kB)
Requirement already satisfied: platformdirs>=2 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6)
(3.9.1)
Requirement already satisfied: tomli>=1.1.0 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6)
(2.0.1)
Requirement already satisfied: absl-py>=0.4 in
/usr/local/lib/python3.10/dist-packages (from tensorflow-
```

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>detectron2==0.6) (1.4.0)
Requirement already satisfied: grpcio>=1.48.2 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (1.56.2)
Requirement already satisfied: google-auth<3,>=1.6.3 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (2.17.3)
Requirement already satisfied: google-auth-oauthlib<1.1,>=0.5 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (1.0.0)
Requirement already satisfied: markdown>=2.6.8 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (3.4.4)
Requirement already satisfied: protobuf>=3.19.6 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (3.20.3)
Requirement already satisfied: requests<3,>=2.21.0 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (2.27.1)
Requirement already satisfied: setuptools>=41.0.0 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (67.7.2)
Requirement already satisfied: tensorboard-data-server<0.8.0,>=0.7.0
in /usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (0.7.1)
Requirement already satisfied: werkzeug>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (2.3.6)
Requirement already satisfied: wheel>=0.26 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (0.41.0)
Requirement already satisfied: cachetools<6.0,>=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (5.3.1)
Requirement already satisfied: pyasn1-modules>=0.2.1 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (0.3.0)
Requirement already satisfied: six>=1.9.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (1.16.0)
Requirement already satisfied: rsa<5,>=3.1.4 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (4.9)
Requirement already satisfied: requests-oauthlib>=0.7.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth-
oauthlib<1.1,>=0.5->tensorboard->detectron2==0.6) (1.3.1)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (1.26.16)
```

```
Requirement already satisfied: certifi>=2017.4.17 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (2023.7.22)
Requirement already satisfied: charset-normalizer~=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (2.0.12)
Requirement already satisfied: idna<4,>=2.5 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (3.4)
Requirement already satisfied: MarkupSafe>=2.1.1 in
/usr/local/lib/python3.10/dist-packages (from werkzeug>=1.0.1-
>tensorboard->detectron2==0.6) (2.1.3)
Requirement already satisfied: pyasn1<0.6.0,>=0.4.6 in
/usr/local/lib/python3.10/dist-packages (from pyasn1-modules>=0.2.1-
>google-auth<3,>=1.6.3->tensorboard->detectron2==0.6) (0.5.0)
Requirement already satisfied: oauthlib>=3.0.0 in
/usr/local/lib/python3.10/dist-packages (from requests-
oauthlib>=0.7.0->google-auth-oauthlib<1.1,>=0.5->tensorboard-
>detectron2==0.6) (3.2.2)
Building wheels for collected packages: detectron2, fvcore, antlr4-
python3-runtime
  Building wheel for detectron2 (setup.py) ... e=detectron2-0.6-cp310-
cp310-linux_x86_64.whl size=6114273
sha256=890fd69a15e0eb2d3f7ab4e791f01f9f8106d33f7c951c8e19c7efa88462bf1
3
    Stored in directory:
/tmp/pip-ephem-wheel-cache-xe80_v5k/wheels/47/e5/15/94c80df2ba85500c5d
76599cc307c0a7079d0e221bb6fc4375
  Building wheel for fvcore (setup.py) ... e=fvcore-
0.1.5.post20221221-py3-none-any.whl size=61406
sha256=d467390c2a64258d426f5658e611ba075ea1b45eef6df94bb3de577571b01cf
8
    Stored in directory:
/root/.cache/pip/wheels/01/c0/af/77c1cf53a1be9e42a52b48e5af2169d40ec2e
89f7362489dd0
  Building wheel for antlr4-python3-runtime (setup.py) ... e:
filename=antlr4_python3_runtime-4.9.3-py3-none-any.whl size=144552
sha256=e3158445410dc4e2e525411c29acb8324e74daf65b6b81beb5ce18197a28813
2
    Stored in directory:
/root/.cache/pip/wheels/12/93/dd/1f6a127edc45659556564c5730f6d4e300888
f4bca2d4c5a88
Successfully built detectron2 fvcore antlr4-python3-runtime
Installing collected packages: antlr4-python3-runtime, yacs,
portalocker, pathspec, omegaconf, mypy-extensions, iopath, hydra-core,
black, fvcore, detectron2
Successfully installed antlr4-python3-runtime-4.9.3 black-23.7.0
detectron2-0.6 fvcore-0.1.5.post20221221 hydra-core-1.3.2 iopath-0.1.9
```

```

mypy-extensions-1.0.0 omegaconf-2.3.0 pathspec-0.11.2 portalocker-
2.7.0 yacs-0.1.8

import sys
print("User Current Version:-", sys.version)

User Current Version:- 3.10.6 (main, May 29 2023, 11:10:38) [GCC
11.3.0]

from platform import python_version
print("Current Python Version-", python_version())

Current Python Version- 3.10.6

!python -m pip install pyyaml==5.1

Collecting pyyaml==5.1
  Downloading PyYAML-5.1.tar.gz (274 kB)
    0.0/274.2 kB ? eta ---:--
    112.6/274.2 kB 3.1 MB/s eta
0:00:01 --:--:-- 274.2/274.2 kB 4.8
MB/s eta 0:00:00
  etadata (setup.py) ... l
    Building wheel for pyyaml (setup.py) ... l: filename=PyYAML-5.1-
cp310-cp310-linux_x86_64.whl size=44091
sha256=503bddfd5d9fb599a6efdf51f06c435c1472231b5667bf54a1fc507f2857855
1
  Stored in directory:
  /root/.cache/pip/wheels/70/83/31/975b737609aba39a4099d471d5684141c1fdc
  3404f97e7f68a
Successfully built pyyaml
Installing collected packages: pyyaml
  Attempting uninstall: pyyaml
    Found existing installation: PyYAML 6.0.1
    Uninstalling PyYAML-6.0.1:
      Successfully uninstalled PyYAML-6.0.1
ERROR: pip's dependency resolver does not currently take into account
all the packages that are installed. This behaviour is the source of
the following dependency conflicts.
dask 2022.12.1 requires pyyaml>=5.3.1, but you have pyyaml 5.1 which
is incompatible.
flax 0.7.0 requires PyYAML>=5.4.1, but you have pyyaml 5.1 which is
incompatible.
Successfully installed pyyaml-5.1

import torch, detectron2
!nvcc --version
TORCH_VERSION = ".".join(torch.__version__.split(".")[:2])
CUDA_VERSION = torch.__version__.split("+")[-1]
print("torch: ", TORCH_VERSION, "; cuda: ", CUDA_VERSION)
print("detectron2:", detectron2.__version__)

```

```
nvcc: NVIDIA (R) Cuda compiler driver
Copyright (c) 2005-2022 NVIDIA Corporation
Built on Wed_Sep_21_10:33:58_PDT_2022
Cuda compilation tools, release 11.8, V11.8.89
Build cuda_11.8.r11.8/compiler.31833905_0
torch: 2.0 ; cuda: cu118
detectron2: 0.6

import detectron2
from detectron2.utils.logger import setup_logger
setup_logger()

# import some common libraries
import numpy as np
import cv2
import matplotlib.pyplot as plt

# import some common detectron2 utilities
from detectron2 import model_zoo
from detectron2.engine import DefaultPredictor
from detectron2.config import get_cfg
from detectron2.utils.visualizer import Visualizer
from detectron2.data import MetadataCatalog, DatasetCatalog

from google.colab import drive
drive.mount('/content/drive')

Drive already mounted at /content/drive; to attempt to forcibly
remount, call drive.mount("/content/drive", force_remount=True).

!ls '/content/drive/MyDrive/Mahabub'

average_areas.txt  crack_info.txt  test  train

!ls '/content/drive/MyDrive/Mahabub/train'

rsz_1slm_square_finalx15k_0001.jpg  rsz_slm_square_finalx15k_0013.jpg
rsz_1slm_square_finalx15k_0001.json
rsz_slm_square_finalx15k_0013.json
rsz_1slm_square_finalx15k_0006.jpg  rsz_slm_square_finalx15k_0014.jpg
rsz_1slm_square_finalx15k_0006.json
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rsz_1slm_square_finalx15k_0019.jpg  rsz_slm_square_finalx15k_0021.jpg
rsz_1slm_square_finalx15k_0019.json
rsz_slm_square_finalx15k_0021.json
```

```
rsz_1slm_square_finalx15k_0020.jpg      rsz_slm_square_finalx15k_0022.jpg
rsz_1slm_square_finalx15k_0020.json      rsz_slm_square_finalx15k_0023.jpg
rsz_slm_square_finalx15k_0022.json      rsz_slm_square_finalx15k_0025.jpg
rsz_1slm_square_finalx15k_0024.jpg      rsz_slm_square_finalx15k_0026.jpg
rsz_1slm_square_finalx15k_0024.json      rsz_slm_square_finalx15k_0027.jpg
rsz_slm_square_finalx15k_0023.json      rsz_slm_square_finalx15k_0028.jpg
rsz_1slm_square_finalx15k_0029.jpg      rsz_slm_square_finalx15k_0029.jpg
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rsz_slm_square_finalx15k_0026.json      rsz_slm_square_finalx15k_0033.json
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rsz_1slm_square_finalx15k_0032.json      rsz_slm_square_finalx15k_0035.jpg
rsz_slm_square_finalx15k_0027.json      rsz_slm_square_finalx15k_0036.jpg
rsz_1slm_square_finalx15k_0040.jpg      rsz_slm_square_finalx15k_0037.jpg
rsz_1slm_square_finalx15k_0040.json      rsz_slm_square_finalx15k_0038.jpg
rsz_slm_square_finalx15k_0028.json      rsz_slm_square_finalx15k_0041.jpg
rsz_1slm_square_finalx15k_0059.jpg      rsz_slm_square_finalx15k_0042.jpg
rsz_1slm_square_finalx15k_0059.json      rsz_slm_square_finalx15k_0043.jpg
rsz_slm_square_finalx15k_0030.json      !
rsz_1slm_square_finalx15k_0002.jpg      !
rsz_1slm_square_finalx15k_0002.json      !
rsz_slm_square_finalx15k_0002.json      !
rsz_1slm_square_finalx15k_0003.jpg      !
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rsz_1slm_square_finalx15k_0004.jpg      !
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rsz_1slm_square_finalx15k_0010.jpg      !
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rsz_1slm_square_finalx15k_0011.jpg      !
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rsz_1slm_square_finalx15k_0013.jpg      !
rsz_1slm_square_finalx15k_0013.json      !
rsz_slm_square_finalx15k_0013.json
```

```
!ls '/content/drive/MyDrive/Mahabub/test'
```

```

rsz_1slm_square_finalx15k_0015.jpg    rsz_slm_square_finalx15k_0051.jpg
rsz_1slm_square_finalx15k_0015.json
rsz_slm_square_finalx15k_0051.json
rsz_1slm_square_finalx15k_0039.jpg    rsz_slm_square_finalx15k_0052.jpg
rsz_1slm_square_finalx15k_0039.json
rsz_slm_square_finalx15k_0052.json
rsz_1slm_square_finalx15k_0044.jpg    rsz_slm_square_finalx15k_0053.jpg
rsz_1slm_square_finalx15k_0044.json
rsz_slm_square_finalx15k_0053.json
rsz_slm_square_finalx15k_0045.jpg    rsz_slm_square_finalx15k_0054.jpg
rsz_slm_square_finalx15k_0045.json
rsz_slm_square_finalx15k_0054.json
rsz_slm_square_finalx15k_0046.jpg    rsz_slm_square_finalx15k_0055.jpg
rsz_slm_square_finalx15k_0046.json
rsz_slm_square_finalx15k_0055.json
rsz_slm_square_finalx15k_0047.jpg    rsz_slm_square_finalx15k_0056.jpg
rsz_slm_square_finalx15k_0047.json
rsz_slm_square_finalx15k_0056.json
rsz_slm_square_finalx15k_0048.jpg    rsz_slm_square_finalx15k_0057.jpg
rsz_slm_square_finalx15k_0048.json
rsz_slm_square_finalx15k_0057.json
rsz_slm_square_finalx15k_0049.jpg    rsz_slm_square_finalx15k_0058.jpg
rsz_slm_square_finalx15k_0049.json
rsz_slm_square_finalx15k_0058.json
rsz_slm_square_finalx15k_0050.jpg    rsz_slm_square_finalx15k_0060.jpg
rsz_slm_square_finalx15k_0050.json
rsz_slm_square_finalx15k_0060.json

DatasetCatalog.remove("p_train")
DatasetCatalog.remove("p_test")

import os
import numpy as np
import json
from detectron2.structures import BoxMode

def get_r_dicts(directory):

    classes = ['unmelted particle', 'porosity', 'microcrack']
    dataset_dicts = []
    for idx, filename in enumerate([file for file in
os.listdir(directory) if file.endswith('.json')]):
        json_file = os.path.join(directory, filename)
        with open(json_file) as f:
            img_anns = json.load(f)

        record = {}

        filename = os.path.join(directory, img_anns["imagePath"])

```

```

record["file_name"] = filename
record["image_id"] = idx
record["height"] = 528
record["width"] = 960

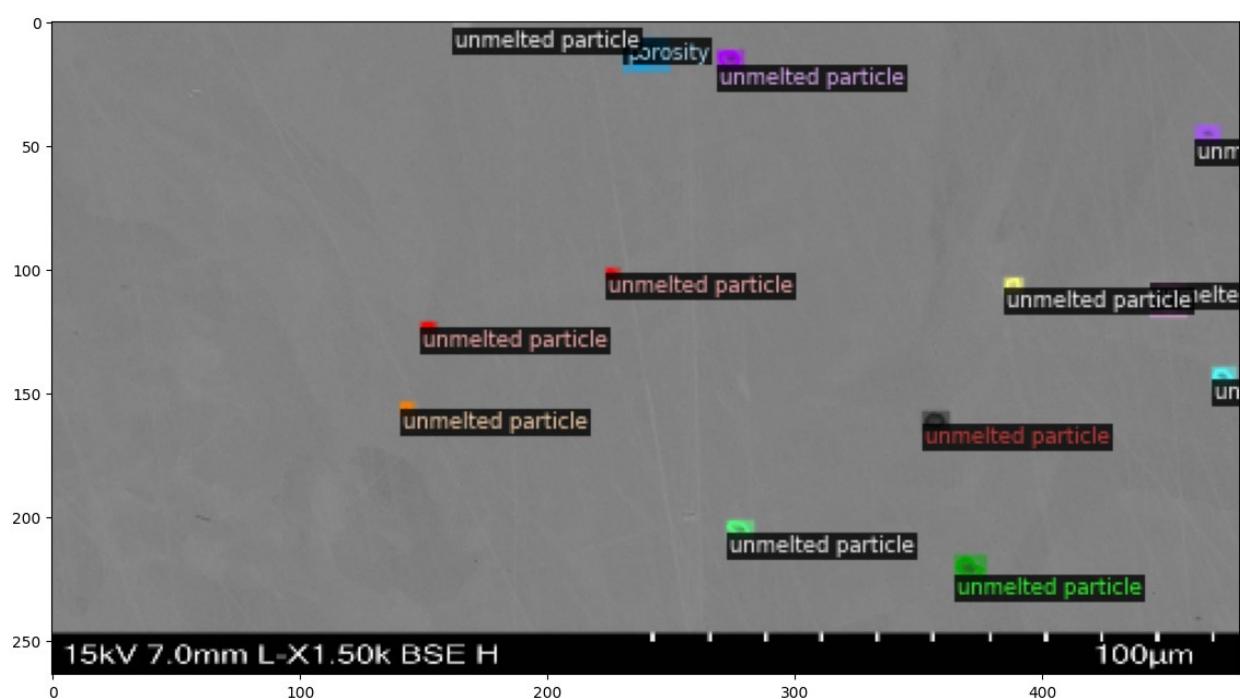
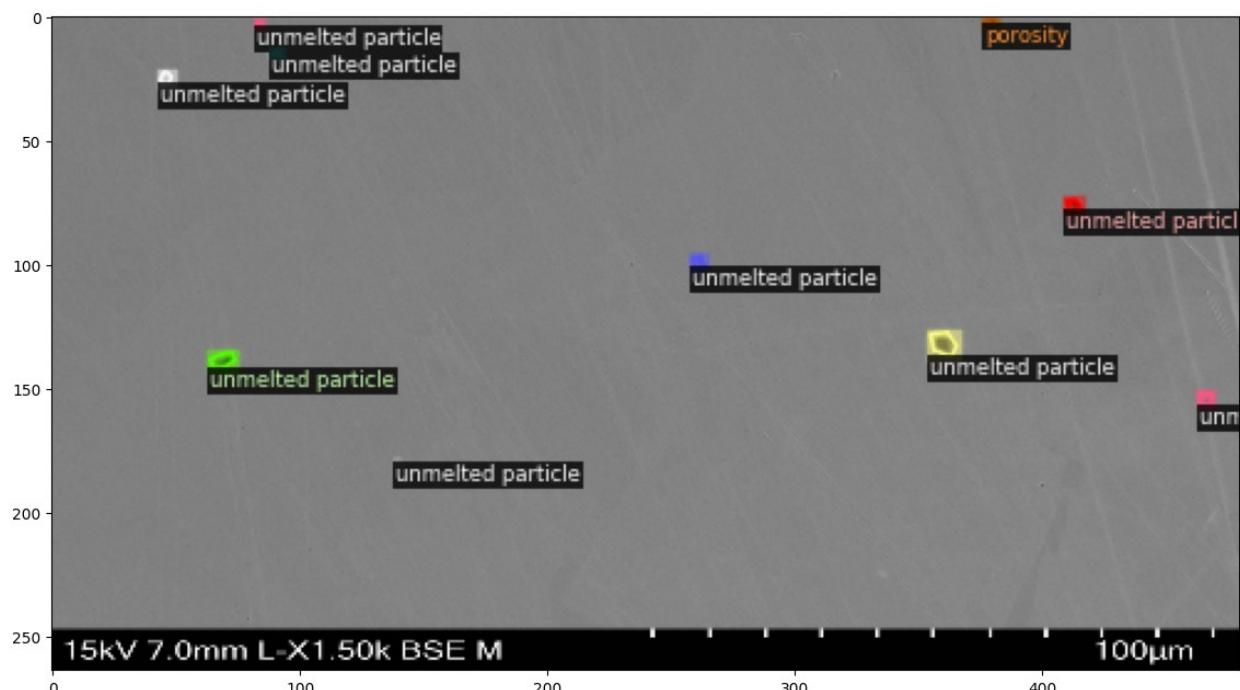
annos = img_anno["shapes"]
objs = []
for anno in annos:
    px = [a[0] for a in anno['points']]
    py = [a[1] for a in anno['points']]
    poly = [(x, y) for x, y in zip(px, py)]
    poly = [p for x in poly for p in x]
    obj = {
        "bbox": [np.min(px), np.min(py), np.max(px),
        np.max(py)],
        "bbox_mode": BoxMode.XYXY_ABS,
        "segmentation": [poly],
        "category_id": classes.index(anno['label']),
        "iscrowd": 0
    }
    objs.append(obj)
record["annotations"] = objs
dataset_dicts.append(record)
return dataset_dicts

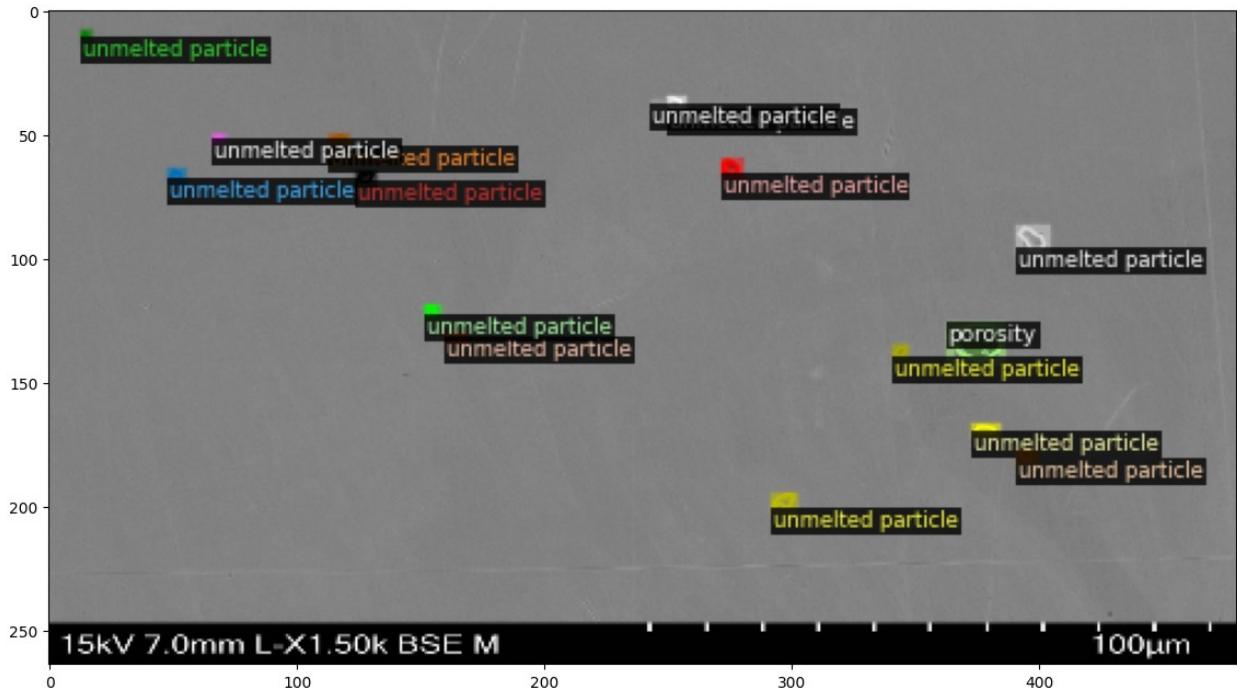
from detectron2.data import DatasetCatalog, MetadataCatalog
for d in ["train", "test"]:
    DatasetCatalog.register("p_" + d, lambda d=d:
get_r_dicts('/content/drive/MyDrive/Mahabub/' + d))
    MetadataCatalog.get("p_" + d).set(thing_classes=['unmelted
particle', 'porosity', 'microcrack'])
r_metadata = MetadataCatalog.get("p_train")

import random

dataset_dicts = get_r_dicts("/content/drive/MyDrive/Mahabub/train")
for d in random.sample(dataset_dicts, 3):
    img = cv2.imread(d["file_name"])
    v = Visualizer(img[:, :, ::-1], metadata=r_metadata, scale=0.5)
    v = v.draw_dataset_dict(d)
    plt.figure(figsize = (14, 10))
    plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1],
cv2.COLOR_BGR2RGB))
    plt.show()

```





```

from detectron2.engine import DefaultTrainer
from detectron2.config import get_cfg

cfg = get_cfg()
cfg.merge_from_file(model_zoo.get_config_file("COCO-
InstanceSegmentation/mask_rcnn_R_50_FPN_3x.yaml"))
cfg.DATASETS.TRAIN = ("p_train",)
cfg.DATASETS.TEST = ()
cfg.DATA_LOADER.NUM_WORKERS = 2
cfg.MODEL.WEIGHTS = model_zoo.get_checkpoint_url("COCO-
InstanceSegmentation/mask_rcnn_R_50_FPN_3x.yaml")
cfg.SOLVER.IMS_PER_BATCH = 2
cfg.SOLVER.BASE_LR = 0.00025
cfg.SOLVER.MAX_ITER = 2000
cfg.SOLVER.STEPS = []           # do not decay learning rate
cfg.MODEL.ROI_HEADS.NUM_CLASSES = 3

os.makedirs(cfg.OUTPUT_DIR, exist_ok=True)
trainer = DefaultTrainer(cfg)
trainer.resume_or_load(resume=False)
trainer.train()

[08/02 21:25:13 d2.engine.defaults]: Model:
GeneralizedRCNN(
  (backbone): FPN(
    (fpn_lateral2): Conv2d(256, 256, kernel_size=(1, 1), stride=(1,
    1))
    (fpn_output2): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
  )
)

```

```
padding=(1, 1))
        (fpn_lateral3): Conv2d(512, 256, kernel_size=(1, 1), stride=(1,
1))
        (fpn_output3): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (fpn_lateral4): Conv2d(1024, 256, kernel_size=(1, 1), stride=(1,
1))
        (fpn_output4): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (fpn_lateral5): Conv2d(2048, 256, kernel_size=(1, 1), stride=(1,
1))
        (fpn_output5): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (top_block): LastLevelMaxPool()
        (bottom_up): ResNet(
            (stem): BasicStem(
                (conv1): Conv2d(
                    3, 64, kernel_size=(7, 7), stride=(2, 2), padding=(3, 3),
bias=False
                    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
                )
            )
            (res2): Sequential(
                (0): BottleneckBlock(
                    (shortcut): Conv2d(
                        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
                        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
                    )
                    (conv1): Conv2d(
                        64, 64, kernel_size=(1, 1), stride=(1, 1), bias=False
                        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
                    )
                    (conv2): Conv2d(
                        64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
                        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
                    )
                    (conv3): Conv2d(
                        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
                        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
                    )
                )
                (1): BottleneckBlock(
                    (conv1): Conv2d(
                        256, 64, kernel_size=(1, 1), stride=(1, 1), bias=False
                        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
                    )
                    (conv2): Conv2d(
                        64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
                        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
                    )
                )
            )
        )
    )
)
```

```
bias=False
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
    )
    (conv3): Conv2d(
        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        256, 64, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
    )
    (conv2): Conv2d(
        64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
    )
    (conv3): Conv2d(
        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
)
)
(res3): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            256, 512, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
        (conv1): Conv2d(
            256, 128, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
        (conv2): Conv2d(
            128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
        (conv3): Conv2d(
            128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
    )
    (1): BottleneckBlock(
        (conv1): Conv2d(
            512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
    )
)
```

```
(conv2): Conv2d(
    128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
    (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
)
(conv3): Conv2d(
    128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
)
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv2): Conv2d(
        128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv3): Conv2d(
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
(3): BottleneckBlock(
    (conv1): Conv2d(
        512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv2): Conv2d(
        128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv3): Conv2d(
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
)
(res4): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            512, 1024, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
        )
        (conv1): Conv2d(
            512, 256, kernel_size=(1, 1), stride=(2, 2), bias=False
        )
    )
)
```

```
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(1): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(3): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
```

```
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(4): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(5): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
)
(res5): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            1024, 2048, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
        )
        (conv1): Conv2d(
            1024, 512, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
    )
)
```

```
(conv2): Conv2d(
    512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
    (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
)
(conv3): Conv2d(
    512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
)
)
(1): BottleneckBlock(
    (conv1): Conv2d(
        2048, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv2): Conv2d(
        512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv3): Conv2d(
        512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        2048, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv2): Conv2d(
        512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv3): Conv2d(
        512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
    )
)
)
)
)
(proposal_generator): RPN(
    (rpn_head): StandardRPNHead(
        (conv): Conv2d(
            256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1)
            (activation): ReLU()
    )
)
```

```
        (objectness_logits): Conv2d(256, 3, kernel_size=(1, 1),
      stride=(1, 1))
        (anchor_deltas): Conv2d(256, 12, kernel_size=(1, 1), stride=(1,
      1))
    )
    (anchor_generator): DefaultAnchorGenerator(
        (cell_anchors): BufferList()
    )
)
(roi_heads): StandardROIHeads(
    (box_pooler): ROIPooler(
        (level_poolers): ModuleList(
            (0): ROIAlign(output_size=(7, 7), spatial_scale=0.25,
      sampling_ratio=0, aligned=True)
            (1): ROIAlign(output_size=(7, 7), spatial_scale=0.125,
      sampling_ratio=0, aligned=True)
            (2): ROIAlign(output_size=(7, 7), spatial_scale=0.0625,
      sampling_ratio=0, aligned=True)
            (3): ROIAlign(output_size=(7, 7), spatial_scale=0.03125,
      sampling_ratio=0, aligned=True)
        )
    )
    (box_head): FastRCNNConvFCHead(
        (flatten): Flatten(start_dim=1, end_dim=-1)
        (fc1): Linear(in_features=12544, out_features=1024, bias=True)
        (fc_relu1): ReLU()
        (fc2): Linear(in_features=1024, out_features=1024, bias=True)
        (fc_relu2): ReLU()
    )
    (box_predictor): FastRCNNOutputLayers(
        (cls_score): Linear(in_features=1024, out_features=4, bias=True)
        (bbox_pred): Linear(in_features=1024, out_features=12,
      bias=True)
    )
    (mask_pooler): ROIPooler(
        (level_poolers): ModuleList(
            (0): ROIAlign(output_size=(14, 14), spatial_scale=0.25,
      sampling_ratio=0, aligned=True)
            (1): ROIAlign(output_size=(14, 14), spatial_scale=0.125,
      sampling_ratio=0, aligned=True)
            (2): ROIAlign(output_size=(14, 14), spatial_scale=0.0625,
      sampling_ratio=0, aligned=True)
            (3): ROIAlign(output_size=(14, 14), spatial_scale=0.03125,
      sampling_ratio=0, aligned=True)
        )
    )
    (mask_head): MaskRCNNConvUpsampleHead(
        (mask_fcn1): Conv2d(
            256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1)
```

```

        (activation): ReLU()
    )
(mask_fcn2): Conv2d(
    256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1)
    (activation): ReLU()
)
(mask_fcn3): Conv2d(
    256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1)
    (activation): ReLU()
)
(mask_fcn4): Conv2d(
    256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1)
    (activation): ReLU()
)
(deconv): ConvTranspose2d(256, 256, kernel_size=(2, 2),
stride=(2, 2))
(deconv_relu): ReLU()
(predictor): Conv2d(256, 3, kernel_size=(1, 1), stride=(1, 1))
)
)
)
[08/02 21:25:14 d2.data.build]: Removed 0 images with no usable
annotations. 42 images left.
[08/02 21:25:14 d2.data.build]: Distribution of instances among all 3
categories:
|   category      | #instances      |   category      | #instances      |   category
| #instances      |                  | #instances      |                  | #instances
| :-----: | :-----: | :-----: | :-----: | :-----:
| :|:-----: |
| unmelted pa.. | 639           | porosity       | 67             |
microcrack | 9           |                  |                 |
|           |           |           |           |
|           |           |           |           |
|   total     | 715           |           |           |
|           |           |           |           |
[08/02 21:25:14 d2.data.dataset_mapper]: [DatasetMapper] Augmentations
used in training: [ResizeShortestEdge(short_edge_length=(640, 672,
704, 736, 768, 800), max_size=1333, sample_style='choice'),
RandomFlip()]
[08/02 21:25:14 d2.data.build]: Using training sampler TrainingSampler
[08/02 21:25:14 d2.data.common]: Serializing the dataset using: <class
'detectron2.data.common._TorchSerializedList'>
[08/02 21:25:14 d2.data.common]: Serializing 42 elements to byte
tensors and concatenating them all ...
[08/02 21:25:14 d2.data.common]: Serialized dataset takes 0.16 MiB
[08/02 21:25:14 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...

```

```
model_final_f10217.pkl: 178MB [00:01, 163MB/s]

WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.cls_score.weight' to the model due to
incompatible shapes: (81, 1024) in the checkpoint but (4, 1024) in the
model! You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.cls_score.bias' to the model due to
incompatible shapes: (81,) in the checkpoint but (4,) in the model!
You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.bbox_pred.weight' to the model due to
incompatible shapes: (320, 1024) in the checkpoint but (12, 1024) in
the model! You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.bbox_pred.bias' to the model due to
incompatible shapes: (320,) in the checkpoint but (12,) in the model!
You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.mask_head.predictor.weight' to the model due to
incompatible shapes: (80, 256, 1, 1) in the checkpoint but (3, 256, 1,
1) in the model! You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.mask_head.predictor.bias' to the model due to incompatible
shapes: (80,) in the checkpoint but (3,) in the model! You might want
to double check if this is expected.
WARNING:fvcore.common.checkpoint:Some model parameters or buffers are
not found in the checkpoint:
roi_heads.box_predictor.bbox_pred.{bias, weight}
roi_heads.box_predictor.cls_score.{bias, weight}
roi_heads.mask_head.predictor.{bias, weight}

[08/02 21:25:15 d2.engine.train_loop]: Starting training from
iteration 0

/usr/local/lib/python3.10/dist-packages/torch/functional.py:504:
UserWarning: torch.meshgrid: in an upcoming release, it will be
required to pass the indexing argument. (Triggered internally at
../../aten/src/ATen/native/TensorShape.cpp:3483.)
    return _VF.meshgrid(tensors, **kwargs) # type: ignore[attr-defined]

[08/02 21:25:26 d2.utils.events]: eta: 0:11:18 iter: 19 total_loss:
4.283 loss_cls: 1.408 loss_box_reg: 0.658 loss_mask: 0.6902
loss_rpn_cls: 1.309 loss_rpn_loc: 0.246 time: 0.3621 last_time:
0.2262 data_time: 0.1078 last_data_time: 0.0089 lr: 4.9953e-06
max_mem: 2541M
[08/02 21:25:35 d2.utils.events]: eta: 0:08:47 iter: 39 total_loss:
3.173 loss_cls: 1.266 loss_box_reg: 0.7197 loss_mask: 0.6858
loss_rpn_cls: 0.2506 loss_rpn_loc: 0.2274 time: 0.3087 last_time:
0.3227 data_time: 0.0085 last_data_time: 0.0063 lr: 9.9902e-06
```

```
max_mem: 2555M
[08/02 21:25:41 d2.utils.events]: eta: 0:09:32 iter: 59 total_loss: 2.716 loss_cls: 1.048 loss_box_reg: 0.6928 loss_mask: 0.6749
loss_rpn_cls: 0.07239 loss_rpn_loc: 0.2156 time: 0.3106
last_time: 0.2619 data_time: 0.0132 last_data_time: 0.0063 lr: 1.4985e-05 max_mem: 2555M
[08/02 21:25:46 d2.utils.events]: eta: 0:08:33 iter: 79 total_loss: 2.382 loss_cls: 0.8217 loss_box_reg: 0.6606 loss_mask: 0.6619
loss_rpn_cls: 0.05443 loss_rpn_loc: 0.2135 time: 0.2972
last_time: 0.2602 data_time: 0.0097 last_data_time: 0.0057 lr: 1.998e-05 max_mem: 2555M
[08/02 21:25:54 d2.utils.events]: eta: 0:08:32 iter: 99 total_loss: 2.19 loss_cls: 0.6479 loss_box_reg: 0.6445 loss_mask: 0.6446
loss_rpn_cls: 0.02951 loss_rpn_loc: 0.2098 time: 0.3201
last_time: 0.2608 data_time: 0.0212 last_data_time: 0.0145 lr: 2.4975e-05 max_mem: 2555M
[08/02 21:25:59 d2.utils.events]: eta: 0:08:16 iter: 119
total_loss: 2.032 loss_cls: 0.5332 loss_box_reg: 0.6213 loss_mask: 0.6216
loss_rpn_cls: 0.05029 loss_rpn_loc: 0.2183 time: 0.3089
last_time: 0.2465 data_time: 0.0092 last_data_time: 0.0077 lr: 2.997e-05 max_mem: 2555M
[08/02 21:26:05 d2.utils.events]: eta: 0:08:06 iter: 139
total_loss: 1.925 loss_cls: 0.4582 loss_box_reg: 0.6013 loss_mask: 0.5962
loss_rpn_cls: 0.04018 loss_rpn_loc: 0.2122 time: 0.3008
last_time: 0.3368 data_time: 0.0081 last_data_time: 0.0063 lr: 3.4965e-05 max_mem: 2555M
[08/02 21:26:11 d2.utils.events]: eta: 0:08:03 iter: 159
total_loss: 1.863 loss_cls: 0.4368 loss_box_reg: 0.613 loss_mask: 0.5716
loss_rpn_cls: 0.04324 loss_rpn_loc: 0.2134 time: 0.3030
last_time: 0.2348 data_time: 0.0183 last_data_time: 0.0081 lr: 3.996e-05 max_mem: 2555M
[08/02 21:26:16 d2.utils.events]: eta: 0:07:56 iter: 179
total_loss: 1.804 loss_cls: 0.3975 loss_box_reg: 0.6246 loss_mask: 0.5421
loss_rpn_cls: 0.03355 loss_rpn_loc: 0.2024 time: 0.2979
last_time: 0.2511 data_time: 0.0082 last_data_time: 0.0077 lr: 4.4955e-05 max_mem: 2555M
[08/02 21:26:22 d2.utils.events]: eta: 0:07:52 iter: 199
total_loss: 1.735 loss_cls: 0.3594 loss_box_reg: 0.5922 loss_mask: 0.5166
loss_rpn_cls: 0.03512 loss_rpn_loc: 0.2033 time: 0.2975
last_time: 0.3597 data_time: 0.0115 last_data_time: 0.0062 lr: 4.995e-05 max_mem: 2555M
[08/02 21:26:28 d2.utils.events]: eta: 0:07:46 iter: 219
total_loss: 1.647 loss_cls: 0.3396 loss_box_reg: 0.5747 loss_mask: 0.4865
loss_rpn_cls: 0.03764 loss_rpn_loc: 0.205 time: 0.2954
last_time: 0.2201 data_time: 0.0085 last_data_time: 0.0060 lr: 5.4945e-05 max_mem: 2555M
[08/02 21:26:33 d2.utils.events]: eta: 0:07:40 iter: 239
total_loss: 1.644 loss_cls: 0.3177 loss_box_reg: 0.6001 loss_mask: 0.4795
loss_rpn_cls: 0.03374 loss_rpn_loc: 0.2187 time: 0.2919
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last_time: 0.2437 data_time: 0.0089 last_data_time: 0.0076 lr:  
5.994e-05 max_mem: 2555M  
[08/02 21:26:39 d2.utils.events]: eta: 0:07:37 iter: 259  
total_loss: 1.588 loss_cls: 0.3005 loss_box_reg: 0.5524 loss_mask:  
0.4646 loss_rpn_cls: 0.03915 loss_rpn_loc: 0.2102 time: 0.2951  
last_time: 0.2420 data_time: 0.0135 last_data_time: 0.0095 lr:  
6.4935e-05 max_mem: 2555M  
[08/02 21:26:44 d2.utils.events]: eta: 0:07:30 iter: 279  
total_loss: 1.63 loss_cls: 0.2996 loss_box_reg: 0.6321 loss_mask:  
0.4388 loss_rpn_cls: 0.03308 loss_rpn_loc: 0.2038 time: 0.2923  
last_time: 0.2714 data_time: 0.0090 last_data_time: 0.0072 lr:  
6.993e-05 max_mem: 2555M  
[08/02 21:26:50 d2.utils.events]: eta: 0:07:25 iter: 299  
total_loss: 1.484 loss_cls: 0.2784 loss_box_reg: 0.5488 loss_mask:  
0.4267 loss_rpn_cls: 0.0296 loss_rpn_loc: 0.1998 time: 0.2904  
last_time: 0.3152 data_time: 0.0077 last_data_time: 0.0065 lr:  
7.4925e-05 max_mem: 2555M  
[08/02 21:26:56 d2.utils.events]: eta: 0:07:20 iter: 319  
total_loss: 1.478 loss_cls: 0.2723 loss_box_reg: 0.5646 loss_mask:  
0.4168 loss_rpn_cls: 0.03146 loss_rpn_loc: 0.2086 time: 0.2915  
last_time: 0.2535 data_time: 0.0162 last_data_time: 0.0063 lr:  
7.992e-05 max_mem: 2555M  
[08/02 21:27:01 d2.utils.events]: eta: 0:07:14 iter: 339  
total_loss: 1.442 loss_cls: 0.2515 loss_box_reg: 0.5661 loss_mask:  
0.3954 loss_rpn_cls: 0.03006 loss_rpn_loc: 0.1988 time: 0.2895  
last_time: 0.2547 data_time: 0.0081 last_data_time: 0.0084 lr:  
8.4915e-05 max_mem: 2555M  
[08/02 21:27:07 d2.utils.events]: eta: 0:07:09 iter: 359  
total_loss: 1.444 loss_cls: 0.2557 loss_box_reg: 0.5891 loss_mask:  
0.401 loss_rpn_cls: 0.03539 loss_rpn_loc: 0.2046 time: 0.2895  
last_time: 0.2953 data_time: 0.0140 last_data_time: 0.0064 lr:  
8.991e-05 max_mem: 2555M  
[08/02 21:27:12 d2.utils.events]: eta: 0:07:04 iter: 379  
total_loss: 1.412 loss_cls: 0.2406 loss_box_reg: 0.5508 loss_mask:  
0.3751 loss_rpn_cls: 0.03653 loss_rpn_loc: 0.2183 time: 0.2888  
last_time: 0.2638 data_time: 0.0122 last_data_time: 0.0066 lr:  
9.4905e-05 max_mem: 2555M  
[08/02 21:27:18 d2.utils.events]: eta: 0:06:57 iter: 399  
total_loss: 1.389 loss_cls: 0.2358 loss_box_reg: 0.5406 loss_mask:  
0.3817 loss_rpn_cls: 0.03826 loss_rpn_loc: 0.2014 time: 0.2875  
last_time: 0.2426 data_time: 0.0106 last_data_time: 0.0202 lr:  
9.99e-05 max_mem: 2555M  
[08/02 21:27:24 d2.utils.events]: eta: 0:06:53 iter: 419  
total_loss: 1.351 loss_cls: 0.2284 loss_box_reg: 0.5168 loss_mask:  
0.3701 loss_rpn_cls: 0.02347 loss_rpn_loc: 0.2063 time: 0.2889  
last_time: 0.3295 data_time: 0.0136 last_data_time: 0.0086 lr:  
0.0001049 max_mem: 2555M  
[08/02 21:27:29 d2.utils.events]: eta: 0:06:48 iter: 439  
total_loss: 1.367 loss_cls: 0.2417 loss_box_reg: 0.554 loss_mask:
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0.3593 loss_rpn_cls: 0.02894 loss_rpn_loc: 0.1991 time: 0.2876
last_time: 0.2605 data_time: 0.0110 last_data_time: 0.0094 lr:
0.00010989 max_mem: 2556M
[08/02 21:27:34 d2.utils.events]: eta: 0:06:42 iter: 459
total_loss: 1.337 loss_cls: 0.2388 loss_box_reg: 0.5316 loss_mask:
0.3613 loss_rpn_cls: 0.0367 loss_rpn_loc: 0.1984 time: 0.2863
last_time: 0.2554 data_time: 0.0099 last_data_time: 0.0094 lr:
0.00011489 max_mem: 2556M
[08/02 21:27:41 d2.utils.events]: eta: 0:06:37 iter: 479
total_loss: 1.346 loss_cls: 0.233 loss_box_reg: 0.5226 loss_mask:
0.3541 loss_rpn_cls: 0.03188 loss_rpn_loc: 0.1929 time: 0.2875
last_time: 0.2409 data_time: 0.0171 last_data_time: 0.0065 lr:
0.00011988 max_mem: 2556M
[08/02 21:27:46 d2.utils.events]: eta: 0:06:32 iter: 499
total_loss: 1.345 loss_cls: 0.2278 loss_box_reg: 0.5177 loss_mask:
0.3607 loss_rpn_cls: 0.02632 loss_rpn_loc: 0.1949 time: 0.2863
last_time: 0.2543 data_time: 0.0105 last_data_time: 0.0171 lr:
0.00012488 max_mem: 2556M
[08/02 21:27:52 d2.utils.events]: eta: 0:06:27 iter: 519
total_loss: 1.338 loss_cls: 0.2216 loss_box_reg: 0.5305 loss_mask:
0.3497 loss_rpn_cls: 0.02938 loss_rpn_loc: 0.2004 time: 0.2866
last_time: 0.3788 data_time: 0.0133 last_data_time: 0.0244 lr:
0.00012987 max_mem: 2556M
[08/02 21:27:58 d2.utils.events]: eta: 0:06:22 iter: 539
total_loss: 1.319 loss_cls: 0.2169 loss_box_reg: 0.5254 loss_mask:
0.3469 loss_rpn_cls: 0.02557 loss_rpn_loc: 0.1984 time: 0.2867
last_time: 0.2572 data_time: 0.0137 last_data_time: 0.0087 lr:
0.00013487 max_mem: 2556M
[08/02 21:28:03 d2.utils.events]: eta: 0:06:17 iter: 559
total_loss: 1.317 loss_cls: 0.2171 loss_box_reg: 0.5104 loss_mask:
0.3466 loss_rpn_cls: 0.03433 loss_rpn_loc: 0.1999 time: 0.2856
last_time: 0.2692 data_time: 0.0079 last_data_time: 0.0074 lr:
0.00013986 max_mem: 2556M
[08/02 21:28:09 d2.utils.events]: eta: 0:06:12 iter: 579
total_loss: 1.315 loss_cls: 0.2089 loss_box_reg: 0.4959 loss_mask:
0.3624 loss_rpn_cls: 0.02302 loss_rpn_loc: 0.2036 time: 0.2869
last_time: 0.2725 data_time: 0.0150 last_data_time: 0.0070 lr:
0.00014486 max_mem: 2556M
[08/02 21:28:14 d2.utils.events]: eta: 0:06:06 iter: 599
total_loss: 1.252 loss_cls: 0.2086 loss_box_reg: 0.5016 loss_mask:
0.3412 loss_rpn_cls: 0.0258 loss_rpn_loc: 0.1843 time: 0.2859
last_time: 0.2590 data_time: 0.0087 last_data_time: 0.0166 lr:
0.00014985 max_mem: 2556M
[08/02 21:28:20 d2.utils.events]: eta: 0:06:01 iter: 619
total_loss: 1.274 loss_cls: 0.1995 loss_box_reg: 0.4855 loss_mask:
0.3578 loss_rpn_cls: 0.02772 loss_rpn_loc: 0.1974 time: 0.2851
last_time: 0.3362 data_time: 0.0103 last_data_time: 0.0075 lr:
0.00015485 max_mem: 2556M
[08/02 21:28:26 d2.utils.events]: eta: 0:05:56 iter: 639
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total_loss: 1.31 loss_cls: 0.2169 loss_box_reg: 0.4841 loss_mask: 0.3476 loss_rpn_cls: 0.02764 loss_rpn_loc: 0.1989 time: 0.2859 last_time: 0.2634 data_time: 0.0179 last_data_time: 0.0074 lr: 0.00015984 max_mem: 2556M [08/02 21:28:31 d2.utils.events]: eta: 0:05:50 iter: 659 total_loss: 1.244 loss_cls: 0.205 loss_box_reg: 0.4855 loss_mask: 0.3477 loss_rpn_cls: 0.02233 loss_rpn_loc: 0.1966 time: 0.2849 last_time: 0.2498 data_time: 0.0100 last_data_time: 0.0096 lr: 0.00016484 max_mem: 2556M [08/02 21:28:37 d2.utils.events]: eta: 0:05:45 iter: 679 total_loss: 1.283 loss_cls: 0.213 loss_box_reg: 0.4986 loss_mask: 0.3451 loss_rpn_cls: 0.01983 loss_rpn_loc: 0.1907 time: 0.2852 last_time: 0.3263 data_time: 0.0129 last_data_time: 0.0226 lr: 0.00016983 max_mem: 2556M [08/02 21:28:42 d2.utils.events]: eta: 0:05:40 iter: 699 total_loss: 1.234 loss_cls: 0.1984 loss_box_reg: 0.48 loss_mask: 0.3376 loss_rpn_cls: 0.02426 loss_rpn_loc: 0.1897 time: 0.2850 last_time: 0.2651 data_time: 0.0122 last_data_time: 0.0103 lr: 0.00017483 max_mem: 2556M [08/02 21:28:48 d2.utils.events]: eta: 0:05:34 iter: 719 total_loss: 1.287 loss_cls: 0.2109 loss_box_reg: 0.4769 loss_mask: 0.3487 loss_rpn_cls: 0.02567 loss_rpn_loc: 0.1911 time: 0.2842 last_time: 0.2502 data_time: 0.0088 last_data_time: 0.0102 lr: 0.00017982 max_mem: 2556M [08/02 21:28:54 d2.utils.events]: eta: 0:05:30 iter: 739 total_loss: 1.269 loss_cls: 0.1949 loss_box_reg: 0.4796 loss_mask: 0.3469 loss_rpn_cls: 0.03091 loss_rpn_loc: 0.2006 time: 0.2851 last_time: 0.2642 data_time: 0.0171 last_data_time: 0.0140 lr: 0.00018482 max_mem: 2556M [08/02 21:28:59 d2.utils.events]: eta: 0:05:24 iter: 759 total_loss: 1.253 loss_cls: 0.2063 loss_box_reg: 0.4814 loss_mask: 0.3421 loss_rpn_cls: 0.02827 loss_rpn_loc: 0.2058 time: 0.2842 last_time: 0.2337 data_time: 0.0090 last_data_time: 0.0092 lr: 0.00018981 max_mem: 2556M [08/02 21:29:04 d2.utils.events]: eta: 0:05:19 iter: 779 total_loss: 1.248 loss_cls: 0.1926 loss_box_reg: 0.4771 loss_mask: 0.3512 loss_rpn_cls: 0.02466 loss_rpn_loc: 0.189 time: 0.2839 last_time: 0.3485 data_time: 0.0097 last_data_time: 0.0083 lr: 0.00019481 max_mem: 2556M [08/02 21:29:11 d2.utils.events]: eta: 0:05:14 iter: 799 total_loss: 1.231 loss_cls: 0.1941 loss_box_reg: 0.4699 loss_mask: 0.3432 loss_rpn_cls: 0.02524 loss_rpn_loc: 0.2053 time: 0.2846 last_time: 0.2588 data_time: 0.0154 last_data_time: 0.0078 lr: 0.0001998 max_mem: 2556M [08/02 21:29:16 d2.utils.events]: eta: 0:05:08 iter: 819 total_loss: 1.211 loss_cls: 0.1977 loss_box_reg: 0.4807 loss_mask: 0.3361 loss_rpn_cls: 0.02482 loss_rpn_loc: 0.1985 time: 0.2839 last_time: 0.2560 data_time: 0.0100 last_data_time: 0.0072 lr: 0.0002048 max_mem: 2556M
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[08/02 21:29:22 d2.utils.events]: eta: 0:05:03 iter: 839
total_loss: 1.234 loss_cls: 0.1929 loss_box_reg: 0.4759 loss_mask:
0.3438 loss_rpn_cls: 0.02137 loss_rpn_loc: 0.1891 time: 0.2841
last_time: 0.3354 data_time: 0.0105 last_data_time: 0.0058 lr:
0.00020979 max_mem: 2556M
[08/02 21:29:27 d2.utils.events]: eta: 0:04:58 iter: 859
total_loss: 1.22 loss_cls: 0.1832 loss_box_reg: 0.4767 loss_mask:
0.3442 loss_rpn_cls: 0.02416 loss_rpn_loc: 0.1797 time: 0.2840
last_time: 0.2627 data_time: 0.0105 last_data_time: 0.0067 lr:
0.00021479 max_mem: 2556M
[08/02 21:29:32 d2.utils.events]: eta: 0:04:53 iter: 879
total_loss: 1.26 loss_cls: 0.1976 loss_box_reg: 0.4946 loss_mask:
0.3425 loss_rpn_cls: 0.01821 loss_rpn_loc: 0.2004 time: 0.2833
last_time: 0.2634 data_time: 0.0091 last_data_time: 0.0095 lr:
0.00021978 max_mem: 2556M
[08/02 21:29:39 d2.utils.events]: eta: 0:04:48 iter: 899
total_loss: 1.216 loss_cls: 0.1907 loss_box_reg: 0.4531 loss_mask:
0.3359 loss_rpn_cls: 0.02023 loss_rpn_loc: 0.1867 time: 0.2840
last_time: 0.2489 data_time: 0.0191 last_data_time: 0.0077 lr:
0.00022478 max_mem: 2556M
[08/02 21:29:44 d2.utils.events]: eta: 0:04:42 iter: 919
total_loss: 1.203 loss_cls: 0.1769 loss_box_reg: 0.4603 loss_mask:
0.3432 loss_rpn_cls: 0.02161 loss_rpn_loc: 0.1885 time: 0.2834
last_time: 0.2260 data_time: 0.0086 last_data_time: 0.0054 lr:
0.00022977 max_mem: 2556M
[08/02 21:29:49 d2.utils.events]: eta: 0:04:37 iter: 939
total_loss: 1.24 loss_cls: 0.1915 loss_box_reg: 0.4713 loss_mask:
0.3403 loss_rpn_cls: 0.02566 loss_rpn_loc: 0.1768 time: 0.2828
last_time: 0.3274 data_time: 0.0092 last_data_time: 0.0060 lr:
0.00023477 max_mem: 2556M
[08/02 21:29:55 d2.utils.events]: eta: 0:04:32 iter: 959
total_loss: 1.186 loss_cls: 0.1778 loss_box_reg: 0.4547 loss_mask:
0.3339 loss_rpn_cls: 0.02209 loss_rpn_loc: 0.1868 time: 0.2835
last_time: 0.2624 data_time: 0.0177 last_data_time: 0.0062 lr:
0.00023976 max_mem: 2556M
[08/02 21:30:01 d2.utils.events]: eta: 0:04:26 iter: 979
total_loss: 1.186 loss_cls: 0.1773 loss_box_reg: 0.4688 loss_mask:
0.3419 loss_rpn_cls: 0.02079 loss_rpn_loc: 0.1797 time: 0.2831
last_time: 0.2520 data_time: 0.0100 last_data_time: 0.0152 lr:
0.00024476 max_mem: 2556M
[08/02 21:30:07 d2.utils.events]: eta: 0:04:21 iter: 999
total_loss: 1.209 loss_cls: 0.1861 loss_box_reg: 0.4919 loss_mask:
0.3337 loss_rpn_cls: 0.02289 loss_rpn_loc: 0.1702 time: 0.2834
last_time: 0.3370 data_time: 0.0137 last_data_time: 0.0246 lr:
0.00024975 max_mem: 2557M
[08/02 21:30:12 d2.utils.events]: eta: 0:04:16 iter: 1019
total_loss: 1.148 loss_cls: 0.1677 loss_box_reg: 0.4405 loss_mask:
0.3378 loss_rpn_cls: 0.02169 loss_rpn_loc: 0.1756 time: 0.2835
last_time: 0.3348 data_time: 0.0121 last_data_time: 0.0282 lr:
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0.00025 max_mem: 2557M
[08/02 21:30:19 d2.utils.events]: eta: 0:04:11 iter: 1039
total_loss: 1.174 loss_cls: 0.1712 loss_box_reg: 0.4315 loss_mask:
0.3331 loss_rpn_cls: 0.02312 loss_rpn_loc: 0.1752 time: 0.2842
last_time: 0.3423 data_time: 0.0175 last_data_time: 0.0198 lr:
0.00025 max_mem: 2557M
[08/02 21:30:25 d2.utils.events]: eta: 0:04:06 iter: 1059
total_loss: 1.16 loss_cls: 0.169 loss_box_reg: 0.4444 loss_mask:
0.343 loss_rpn_cls: 0.01591 loss_rpn_loc: 0.1693 time: 0.2847
last_time: 0.2620 data_time: 0.0144 last_data_time: 0.0059 lr:
0.00025 max_mem: 2557M
[08/02 21:30:30 d2.utils.events]: eta: 0:04:01 iter: 1079
total_loss: 1.149 loss_cls: 0.169 loss_box_reg: 0.4444 loss_mask:
0.3368 loss_rpn_cls: 0.02155 loss_rpn_loc: 0.1806 time: 0.2842
last_time: 0.2618 data_time: 0.0081 last_data_time: 0.0068 lr:
0.00025 max_mem: 2557M
[08/02 21:30:36 d2.utils.events]: eta: 0:03:55 iter: 1099
total_loss: 1.113 loss_cls: 0.1698 loss_box_reg: 0.4286 loss_mask:
0.3325 loss_rpn_cls: 0.02235 loss_rpn_loc: 0.1779 time: 0.2843
last_time: 0.3355 data_time: 0.0090 last_data_time: 0.0061 lr:
0.00025 max_mem: 2557M
[08/02 21:30:42 d2.utils.events]: eta: 0:03:50 iter: 1119
total_loss: 1.153 loss_cls: 0.1799 loss_box_reg: 0.4414 loss_mask:
0.3305 loss_rpn_cls: 0.02937 loss_rpn_loc: 0.1885 time: 0.2843
last_time: 0.2489 data_time: 0.0095 last_data_time: 0.0112 lr:
0.00025 max_mem: 2557M
[08/02 21:30:47 d2.utils.events]: eta: 0:03:45 iter: 1139
total_loss: 1.121 loss_cls: 0.1705 loss_box_reg: 0.4351 loss_mask:
0.3271 loss_rpn_cls: 0.02543 loss_rpn_loc: 0.1733 time: 0.2838
last_time: 0.2657 data_time: 0.0083 last_data_time: 0.0065 lr:
0.00025 max_mem: 2557M
[08/02 21:30:53 d2.utils.events]: eta: 0:03:40 iter: 1159
total_loss: 1.168 loss_cls: 0.1698 loss_box_reg: 0.4391 loss_mask:
0.3269 loss_rpn_cls: 0.02161 loss_rpn_loc: 0.1827 time: 0.2844
last_time: 0.3156 data_time: 0.0124 last_data_time: 0.0067 lr:
0.00025 max_mem: 2557M
[08/02 21:30:58 d2.utils.events]: eta: 0:03:35 iter: 1179
total_loss: 1.143 loss_cls: 0.1766 loss_box_reg: 0.4485 loss_mask:
0.3341 loss_rpn_cls: 0.02038 loss_rpn_loc: 0.1796 time: 0.2839
last_time: 0.2494 data_time: 0.0078 last_data_time: 0.0070 lr:
0.00025 max_mem: 2557M
[08/02 21:31:04 d2.utils.events]: eta: 0:03:29 iter: 1199
total_loss: 1.131 loss_cls: 0.1606 loss_box_reg: 0.4339 loss_mask:
0.3308 loss_rpn_cls: 0.01826 loss_rpn_loc: 0.1776 time: 0.2835
last_time: 0.3505 data_time: 0.0089 last_data_time: 0.0068 lr:
0.00025 max_mem: 2557M
[08/02 21:31:10 d2.utils.events]: eta: 0:03:24 iter: 1219
total_loss: 1.146 loss_cls: 0.1791 loss_box_reg: 0.437 loss_mask:
0.3382 loss_rpn_cls: 0.01822 loss_rpn_loc: 0.1726 time: 0.2841
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last_time: 0.2326 data_time: 0.0158 last_data_time: 0.0182 lr:  
0.00025 max_mem: 2557M  
[08/02 21:31:15 d2.utils.events]: eta: 0:03:19 iter: 1239  
total_loss: 1.122 loss_cls: 0.1646 loss_box_reg: 0.4685 loss_mask:  
0.3236 loss_rpn_cls: 0.02566 loss_rpn_loc: 0.1748 time: 0.2837  
last_time: 0.2406 data_time: 0.0086 last_data_time: 0.0069 lr:  
0.00025 max_mem: 2557M  
[08/02 21:31:21 d2.utils.events]: eta: 0:03:14 iter: 1259  
total_loss: 1.111 loss_cls: 0.1678 loss_box_reg: 0.4313 loss_mask:  
0.3231 loss_rpn_cls: 0.01942 loss_rpn_loc: 0.1681 time: 0.2838  
last_time: 0.3480 data_time: 0.0115 last_data_time: 0.0255 lr:  
0.00025 max_mem: 2557M  
[08/02 21:31:27 d2.utils.events]: eta: 0:03:09 iter: 1279  
total_loss: 1.104 loss_cls: 0.1643 loss_box_reg: 0.4392 loss_mask:  
0.3297 loss_rpn_cls: 0.01676 loss_rpn_loc: 0.1694 time: 0.2837  
last_time: 0.2584 data_time: 0.0090 last_data_time: 0.0085 lr:  
0.00025 max_mem: 2557M  
[08/02 21:31:32 d2.utils.events]: eta: 0:03:03 iter: 1299  
total_loss: 1.118 loss_cls: 0.1651 loss_box_reg: 0.4429 loss_mask:  
0.3306 loss_rpn_cls: 0.01574 loss_rpn_loc: 0.1692 time: 0.2833  
last_time: 0.2608 data_time: 0.0090 last_data_time: 0.0069 lr:  
0.00025 max_mem: 2557M  
[08/02 21:31:38 d2.utils.events]: eta: 0:02:58 iter: 1319  
total_loss: 1.09 loss_cls: 0.1602 loss_box_reg: 0.4017 loss_mask:  
0.3207 loss_rpn_cls: 0.01516 loss_rpn_loc: 0.1759 time: 0.2839  
last_time: 0.2586 data_time: 0.0175 last_data_time: 0.0064 lr:  
0.00025 max_mem: 2557M  
[08/02 21:31:43 d2.utils.events]: eta: 0:02:53 iter: 1339  
total_loss: 1.078 loss_cls: 0.1655 loss_box_reg: 0.4152 loss_mask:  
0.3271 loss_rpn_cls: 0.01585 loss_rpn_loc: 0.17 time: 0.2834  
last_time: 0.2672 data_time: 0.0074 last_data_time: 0.0099 lr:  
0.00025 max_mem: 2557M  
[08/02 21:31:49 d2.utils.events]: eta: 0:02:48 iter: 1359  
total_loss: 1.167 loss_cls: 0.1692 loss_box_reg: 0.4068 loss_mask:  
0.3242 loss_rpn_cls: 0.02025 loss_rpn_loc: 0.1699 time: 0.2832  
last_time: 0.3735 data_time: 0.0083 last_data_time: 0.0083 lr:  
0.00025 max_mem: 2557M  
[08/02 21:31:55 d2.utils.events]: eta: 0:02:42 iter: 1379  
total_loss: 1.15 loss_cls: 0.1638 loss_box_reg: 0.4459 loss_mask:  
0.3262 loss_rpn_cls: 0.01924 loss_rpn_loc: 0.1791 time: 0.2836  
last_time: 0.2599 data_time: 0.0194 last_data_time: 0.0074 lr:  
0.00025 max_mem: 2557M  
[08/02 21:32:00 d2.utils.events]: eta: 0:02:37 iter: 1399  
total_loss: 1.102 loss_cls: 0.1523 loss_box_reg: 0.4181 loss_mask:  
0.3328 loss_rpn_cls: 0.02126 loss_rpn_loc: 0.167 time: 0.2832  
last_time: 0.2784 data_time: 0.0102 last_data_time: 0.0157 lr:  
0.00025 max_mem: 2557M  
[08/02 21:32:06 d2.utils.events]: eta: 0:02:32 iter: 1419  
total_loss: 1.105 loss_cls: 0.1633 loss_box_reg: 0.4426 loss_mask:
```

```
0.3306 loss_rpn_cls: 0.02573 loss_rpn_loc: 0.1645 time: 0.2835
last_time: 0.3683 data_time: 0.0164 last_data_time: 0.0066 lr:
0.00025 max_mem: 2557M
[08/02 21:32:12 d2.utils.events]: eta: 0:02:27 iter: 1439
total_loss: 1.14 loss_cls: 0.1712 loss_box_reg: 0.431 loss_mask:
0.3317 loss_rpn_cls: 0.0192 loss_rpn_loc: 0.1678 time: 0.2834
last_time: 0.2549 data_time: 0.0130 last_data_time: 0.0063 lr:
0.00025 max_mem: 2557M
[08/02 21:32:17 d2.utils.events]: eta: 0:02:21 iter: 1459
total_loss: 1.073 loss_cls: 0.1467 loss_box_reg: 0.419 loss_mask:
0.3187 loss_rpn_cls: 0.01791 loss_rpn_loc: 0.1698 time: 0.2830
last_time: 0.2556 data_time: 0.0100 last_data_time: 0.0062 lr:
0.00025 max_mem: 2557M
[08/02 21:32:23 d2.utils.events]: eta: 0:02:16 iter: 1479
total_loss: 1.091 loss_cls: 0.1567 loss_box_reg: 0.4096 loss_mask:
0.3261 loss_rpn_cls: 0.01644 loss_rpn_loc: 0.1719 time: 0.2835
last_time: 0.2669 data_time: 0.0126 last_data_time: 0.0128 lr:
0.00025 max_mem: 2557M
[08/02 21:32:28 d2.utils.events]: eta: 0:02:11 iter: 1499
total_loss: 1.1 loss_cls: 0.1531 loss_box_reg: 0.4257 loss_mask:
0.3284 loss_rpn_cls: 0.02294 loss_rpn_loc: 0.1677 time: 0.2831
last_time: 0.2592 data_time: 0.0081 last_data_time: 0.0076 lr:
0.00025 max_mem: 2557M
[08/02 21:32:34 d2.utils.events]: eta: 0:02:05 iter: 1519
total_loss: 1.075 loss_cls: 0.1445 loss_box_reg: 0.4284 loss_mask:
0.326 loss_rpn_cls: 0.01528 loss_rpn_loc: 0.1583 time: 0.2829
last_time: 0.3667 data_time: 0.0096 last_data_time: 0.0274 lr:
0.00025 max_mem: 2557M
[08/02 21:32:40 d2.utils.events]: eta: 0:02:00 iter: 1539
total_loss: 1.078 loss_cls: 0.1523 loss_box_reg: 0.429 loss_mask:
0.3263 loss_rpn_cls: 0.01491 loss_rpn_loc: 0.169 time: 0.2833
last_time: 0.2605 data_time: 0.0183 last_data_time: 0.0081 lr:
0.00025 max_mem: 2557M
[08/02 21:32:45 d2.utils.events]: eta: 0:01:55 iter: 1559
total_loss: 1.116 loss_cls: 0.151 loss_box_reg: 0.4262 loss_mask:
0.3206 loss_rpn_cls: 0.02558 loss_rpn_loc: 0.1649 time: 0.2829
last_time: 0.2633 data_time: 0.0092 last_data_time: 0.0074 lr:
0.00025 max_mem: 2557M
[08/02 21:32:51 d2.utils.events]: eta: 0:01:50 iter: 1579
total_loss: 1.068 loss_cls: 0.147 loss_box_reg: 0.4084 loss_mask:
0.3324 loss_rpn_cls: 0.01848 loss_rpn_loc: 0.1632 time: 0.2832
last_time: 0.3744 data_time: 0.0118 last_data_time: 0.0191 lr:
0.00025 max_mem: 2557M
[08/02 21:32:58 d2.utils.events]: eta: 0:01:45 iter: 1599
total_loss: 1.094 loss_cls: 0.1472 loss_box_reg: 0.4297 loss_mask:
0.3317 loss_rpn_cls: 0.02107 loss_rpn_loc: 0.154 time: 0.2840
last_time: 0.2278 data_time: 0.0177 last_data_time: 0.0069 lr:
0.00025 max_mem: 2557M
[08/02 21:33:03 d2.utils.events]: eta: 0:01:39 iter: 1619
```

```
total_loss: 1.082 loss_cls: 0.1495 loss_box_reg: 0.442 loss_mask:  
0.3247 loss_rpn_cls: 0.02507 loss_rpn_loc: 0.166 time: 0.2837  
last_time: 0.2740 data_time: 0.0086 last_data_time: 0.0079 lr:  
0.00025 max_mem: 2557M  
[08/02 21:33:10 d2.utils.events]: eta: 0:01:34 iter: 1639  
total_loss: 1.074 loss_cls: 0.1483 loss_box_reg: 0.4194 loss_mask:  
0.3207 loss_rpn_cls: 0.02469 loss_rpn_loc: 0.1624 time: 0.2841  
last_time: 0.2607 data_time: 0.0176 last_data_time: 0.0231 lr:  
0.00025 max_mem: 2557M  
[08/02 21:33:15 d2.utils.events]: eta: 0:01:29 iter: 1659  
total_loss: 1.028 loss_cls: 0.1451 loss_box_reg: 0.4029 loss_mask:  
0.3224 loss_rpn_cls: 0.02161 loss_rpn_loc: 0.1652 time: 0.2839  
last_time: 0.2677 data_time: 0.0108 last_data_time: 0.0089 lr:  
0.00025 max_mem: 2557M  
[08/02 21:33:21 d2.utils.events]: eta: 0:01:24 iter: 1679  
total_loss: 1.079 loss_cls: 0.1494 loss_box_reg: 0.4027 loss_mask:  
0.3226 loss_rpn_cls: 0.01679 loss_rpn_loc: 0.1584 time: 0.2838  
last_time: 0.3362 data_time: 0.0103 last_data_time: 0.0065 lr:  
0.00025 max_mem: 2557M  
[08/02 21:33:26 d2.utils.events]: eta: 0:01:18 iter: 1699  
total_loss: 1.058 loss_cls: 0.1473 loss_box_reg: 0.3975 loss_mask:  
0.328 loss_rpn_cls: 0.01715 loss_rpn_loc: 0.1621 time: 0.2840  
last_time: 0.2537 data_time: 0.0106 last_data_time: 0.0094 lr:  
0.00025 max_mem: 2557M  
[08/02 21:33:32 d2.utils.events]: eta: 0:01:13 iter: 1719  
total_loss: 1.081 loss_cls: 0.1474 loss_box_reg: 0.4289 loss_mask:  
0.3298 loss_rpn_cls: 0.01654 loss_rpn_loc: 0.1622 time: 0.2837  
last_time: 0.2571 data_time: 0.0092 last_data_time: 0.0117 lr:  
0.00025 max_mem: 2557M  
[08/02 21:33:38 d2.utils.events]: eta: 0:01:08 iter: 1739  
total_loss: 1.014 loss_cls: 0.1386 loss_box_reg: 0.3988 loss_mask:  
0.3111 loss_rpn_cls: 0.01925 loss_rpn_loc: 0.1555 time: 0.2841  
last_time: 0.3385 data_time: 0.0155 last_data_time: 0.0064 lr:  
0.00025 max_mem: 2557M  
[08/02 21:33:43 d2.utils.events]: eta: 0:01:03 iter: 1759  
total_loss: 1.062 loss_cls: 0.1365 loss_box_reg: 0.3956 loss_mask:  
0.3193 loss_rpn_cls: 0.02021 loss_rpn_loc: 0.1482 time: 0.2838  
last_time: 0.2528 data_time: 0.0088 last_data_time: 0.0064 lr:  
0.00025 max_mem: 2557M  
[08/02 21:33:49 d2.utils.events]: eta: 0:00:57 iter: 1779  
total_loss: 1.087 loss_cls: 0.1442 loss_box_reg: 0.4213 loss_mask:  
0.3303 loss_rpn_cls: 0.01962 loss_rpn_loc: 0.1648 time: 0.2836  
last_time: 0.3002 data_time: 0.0077 last_data_time: 0.0079 lr:  
0.00025 max_mem: 2557M  
[08/02 21:33:55 d2.utils.events]: eta: 0:00:52 iter: 1799  
total_loss: 1.036 loss_cls: 0.1376 loss_box_reg: 0.4051 loss_mask:  
0.3108 loss_rpn_cls: 0.01616 loss_rpn_loc: 0.1535 time: 0.2840  
last_time: 0.2637 data_time: 0.0181 last_data_time: 0.0073 lr:  
0.00025 max_mem: 2557M
```

```
[08/02 21:34:00 d2.utils.events]: eta: 0:00:47 iter: 1819
total_loss: 1.073 loss_cls: 0.1355 loss_box_reg: 0.4072 loss_mask:
0.3292 loss_rpn_cls: 0.01649 loss_rpn_loc: 0.1608 time: 0.2837
last_time: 0.2558 data_time: 0.0093 last_data_time: 0.0090 lr:
0.00025 max_mem: 2557M
[08/02 21:34:06 d2.utils.events]: eta: 0:00:42 iter: 1839
total_loss: 1.082 loss_cls: 0.1466 loss_box_reg: 0.425 loss_mask:
0.3205 loss_rpn_cls: 0.02445 loss_rpn_loc: 0.1615 time: 0.2839
last_time: 0.3584 data_time: 0.0138 last_data_time: 0.0106 lr:
0.00025 max_mem: 2557M
[08/02 21:34:12 d2.utils.events]: eta: 0:00:36 iter: 1859
total_loss: 1.045 loss_cls: 0.1399 loss_box_reg: 0.4236 loss_mask:
0.3208 loss_rpn_cls: 0.02013 loss_rpn_loc: 0.1521 time: 0.2839
last_time: 0.2401 data_time: 0.0120 last_data_time: 0.0070 lr:
0.00025 max_mem: 2557M
[08/02 21:34:17 d2.utils.events]: eta: 0:00:31 iter: 1879
total_loss: 1.023 loss_cls: 0.1383 loss_box_reg: 0.382 loss_mask:
0.3161 loss_rpn_cls: 0.01554 loss_rpn_loc: 0.1492 time: 0.2836
last_time: 0.2612 data_time: 0.0118 last_data_time: 0.0076 lr:
0.00025 max_mem: 2557M
[08/02 21:34:23 d2.utils.events]: eta: 0:00:26 iter: 1899
total_loss: 1.063 loss_cls: 0.138 loss_box_reg: 0.4003 loss_mask:
0.3173 loss_rpn_cls: 0.01586 loss_rpn_loc: 0.1628 time: 0.2840
last_time: 0.2435 data_time: 0.0122 last_data_time: 0.0068 lr:
0.00025 max_mem: 2557M
[08/02 21:34:29 d2.utils.events]: eta: 0:00:21 iter: 1919
total_loss: 1.006 loss_cls: 0.1324 loss_box_reg: 0.3929 loss_mask:
0.3198 loss_rpn_cls: 0.01507 loss_rpn_loc: 0.1533 time: 0.2837
last_time: 0.2625 data_time: 0.0082 last_data_time: 0.0067 lr:
0.00025 max_mem: 2557M
[08/02 21:34:34 d2.utils.events]: eta: 0:00:15 iter: 1939
total_loss: 1.039 loss_cls: 0.142 loss_box_reg: 0.4009 loss_mask:
0.3084 loss_rpn_cls: 0.01367 loss_rpn_loc: 0.1567 time: 0.2836
last_time: 0.3210 data_time: 0.0103 last_data_time: 0.0265 lr:
0.00025 max_mem: 2557M
[08/02 21:34:40 d2.utils.events]: eta: 0:00:10 iter: 1959
total_loss: 1.012 loss_cls: 0.1378 loss_box_reg: 0.3965 loss_mask:
0.3266 loss_rpn_cls: 0.02368 loss_rpn_loc: 0.1435 time: 0.2838
last_time: 0.2615 data_time: 0.0130 last_data_time: 0.0089 lr:
0.00025 max_mem: 2557M
[08/02 21:34:45 d2.utils.events]: eta: 0:00:05 iter: 1979
total_loss: 1.043 loss_cls: 0.1341 loss_box_reg: 0.4233 loss_mask:
0.3095 loss_rpn_cls: 0.02136 loss_rpn_loc: 0.1417 time: 0.2835
last_time: 0.2644 data_time: 0.0073 last_data_time: 0.0090 lr:
0.00025 max_mem: 2557M
[08/02 21:34:53 d2.utils.events]: eta: 0:00:00 iter: 1999
total_loss: 1.003 loss_cls: 0.1309 loss_box_reg: 0.3887 loss_mask:
0.3057 loss_rpn_cls: 0.02356 loss_rpn_loc: 0.1523 time: 0.2837
last_time: 0.3869 data_time: 0.0164 last_data_time: 0.0269 lr:
0.00025 max_mem: 2557M
```

```
[08/02 21:34:53 d2.engine.hooks]: Overall training speed: 1998
iterations in 0:09:26 (0.2837 s / it)
[08/02 21:34:53 d2.engine.hooks]: Total training time: 0:09:33
(0:00:06 on hooks)

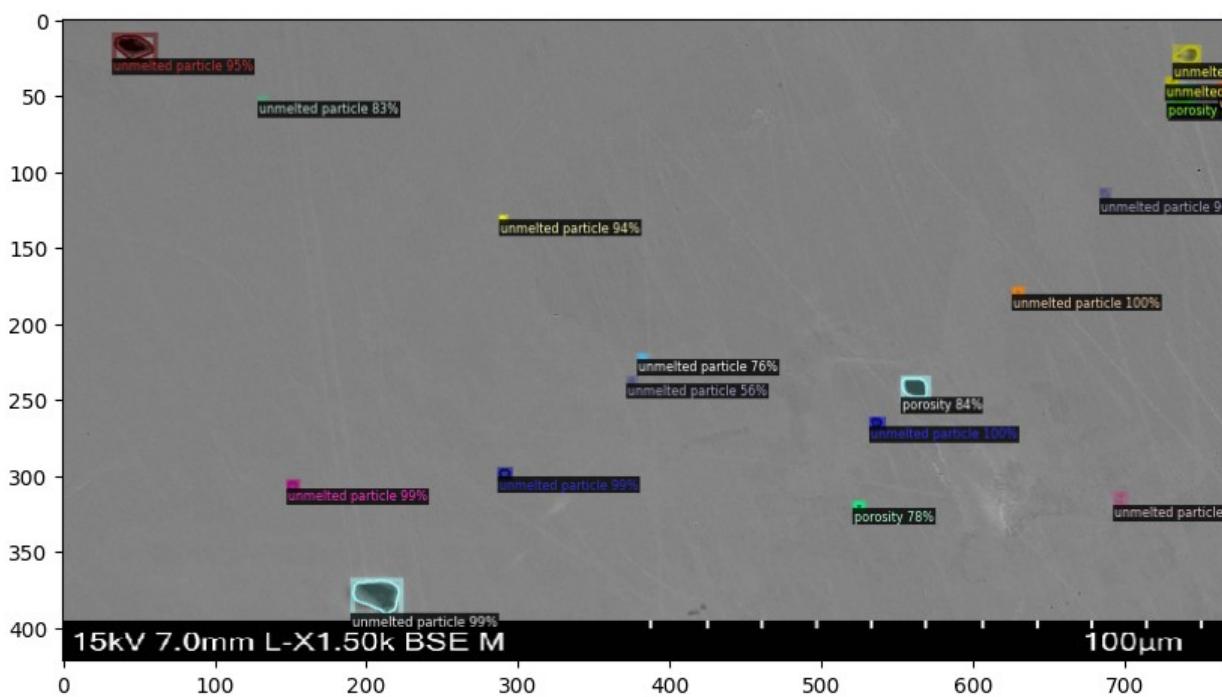
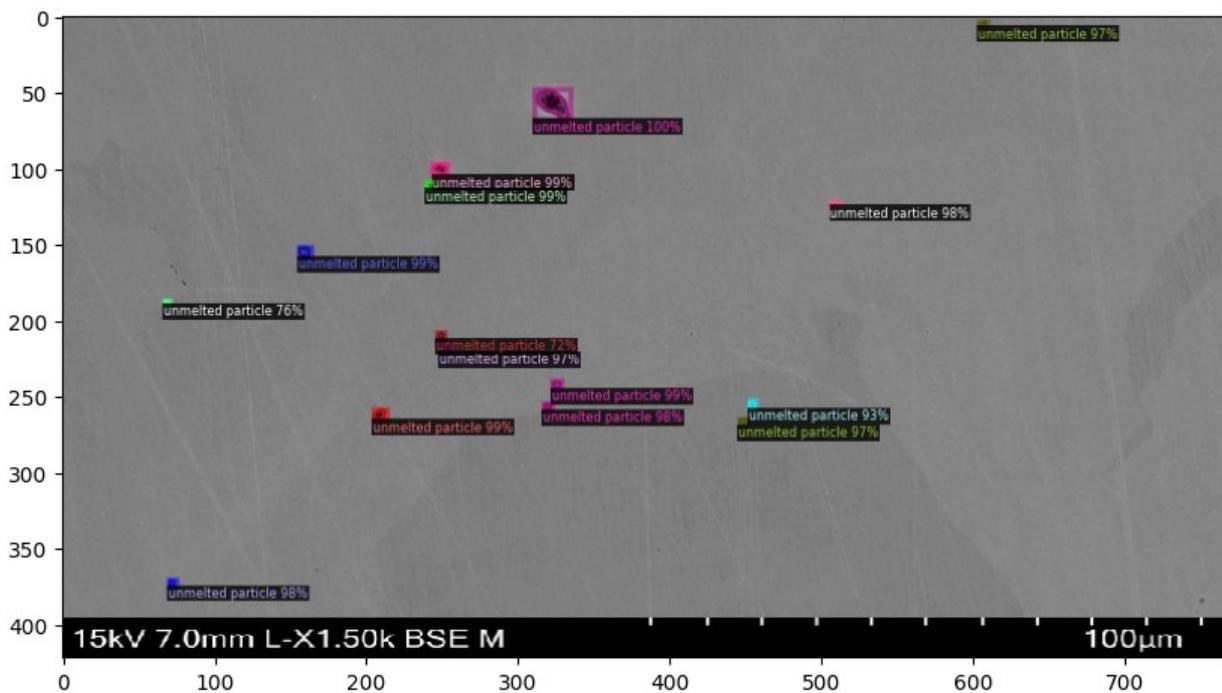
# Look at training curves in tensorboard:
%load_ext tensorboard
%tensorboard --logdir output

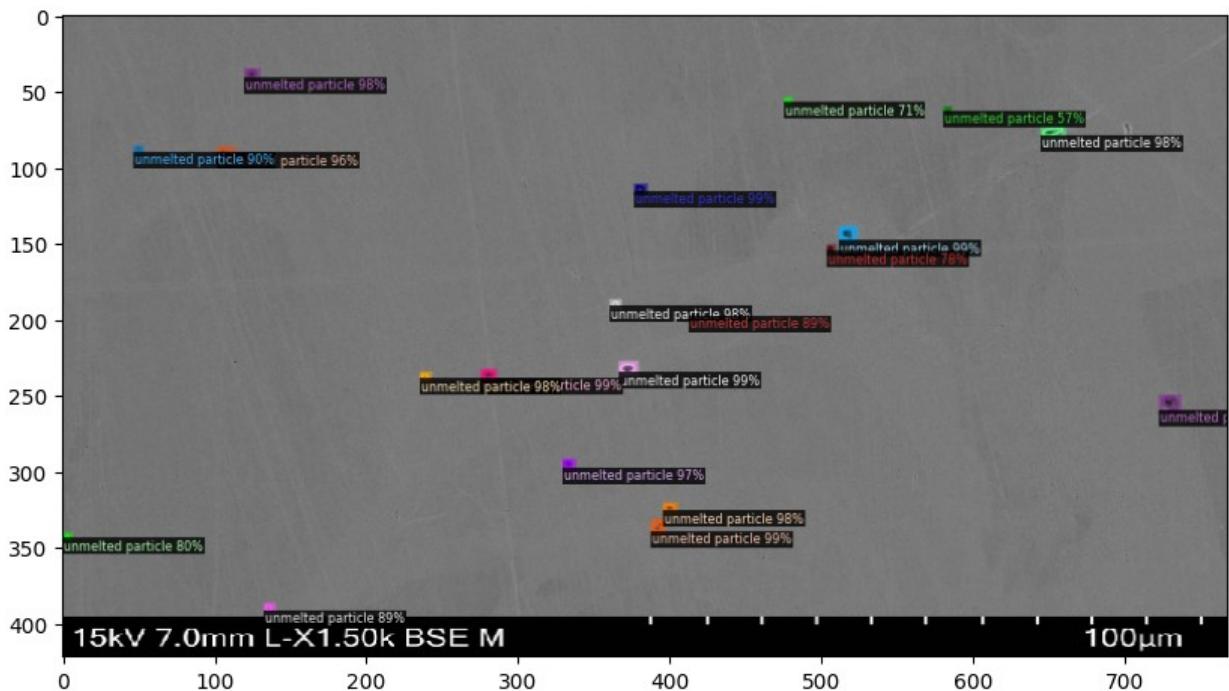
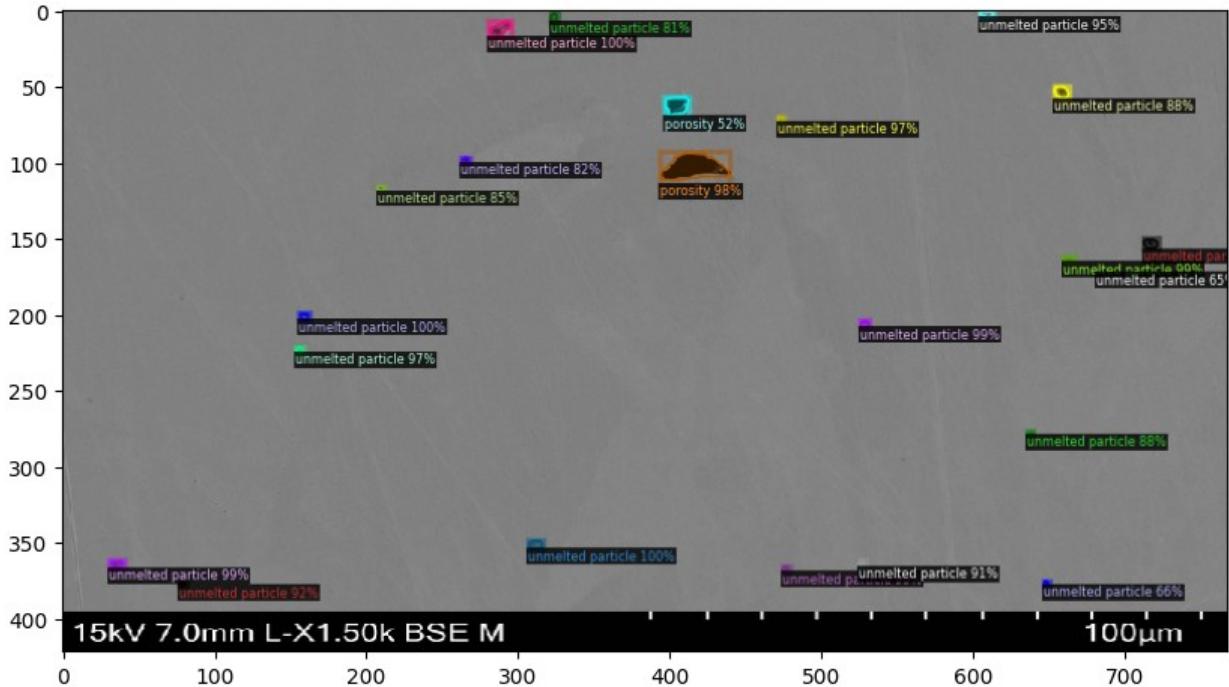
<IPython.core.display.Javascript object>

cfg.MODEL.WEIGHTS = os.path.join(cfg.OUTPUT_DIR, "model_final.pth")
cfg.MODEL.ROI_HEADS.SCORE_THRESH_TEST = 0.5
cfg.DATASETS.TEST = ("p_test", )
predictor = DefaultPredictor(cfg)

[08/02 21:35:48 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from ./output/model_final.pth ...

from detectron2.utils.visualizer import ColorMode
dataset_dicts = get_r_dicts('/content/drive/MyDrive/Mahabub/train')
for d in random.sample(dataset_dicts, 4):
    im = cv2.imread(d["file_name"])
    outputs = predictor(im)
    v = Visualizer(im[:, :, ::-1],
                   metadata=r_metadata,
                   scale=0.8,
                   instance_mode=ColorMode.IMAGE_BW # remove the
colors of unsegmented pixels
    )
    v = v.draw_instance_predictions(outputs["instances"].to("cpu"))
    plt.figure(figsize = (10, 10))
    plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1],
cv2.COLOR_BGR2RGB))
    plt.show()
```



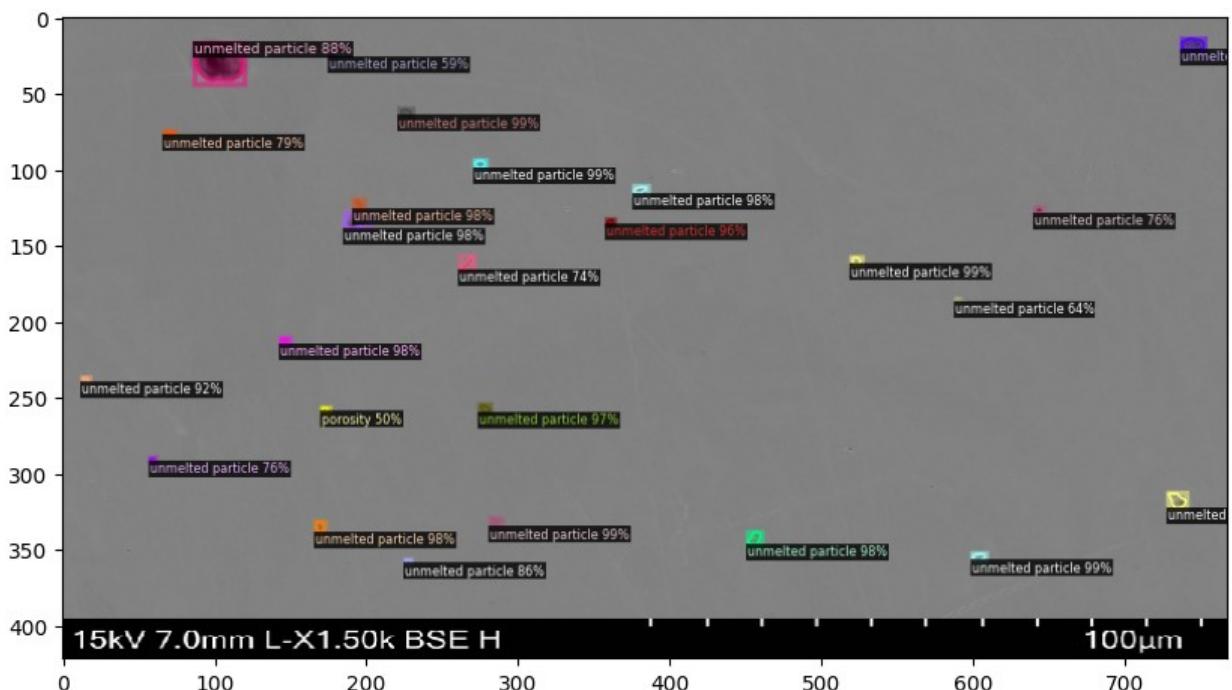


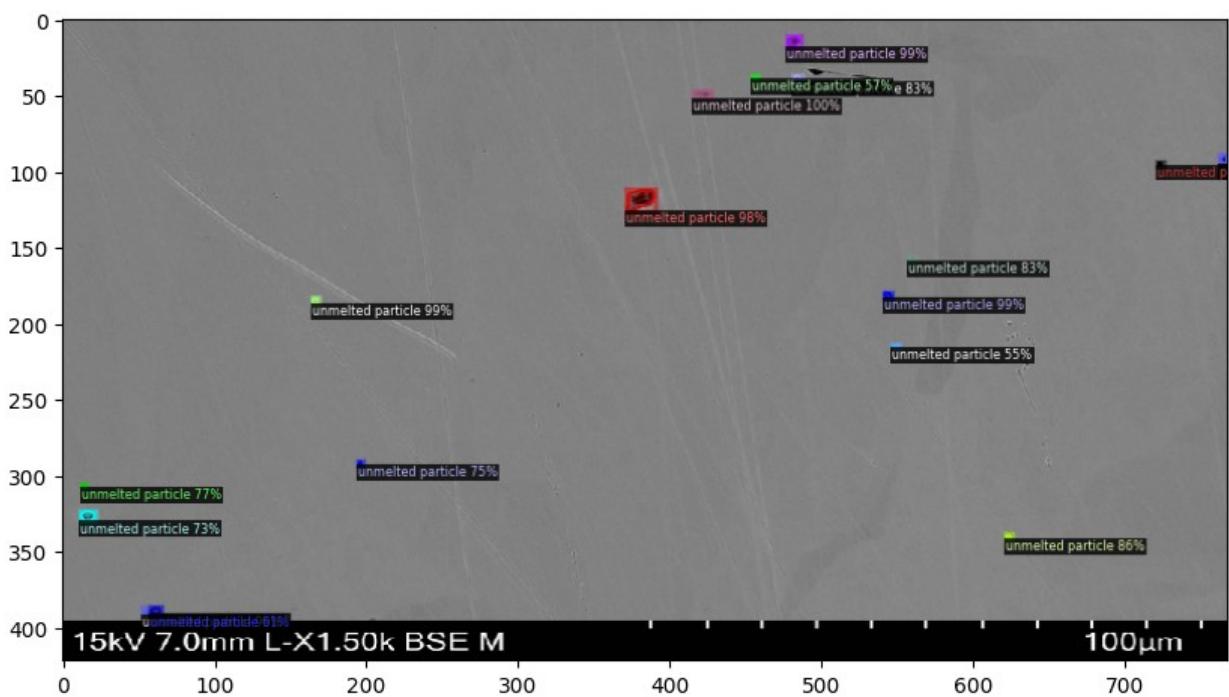
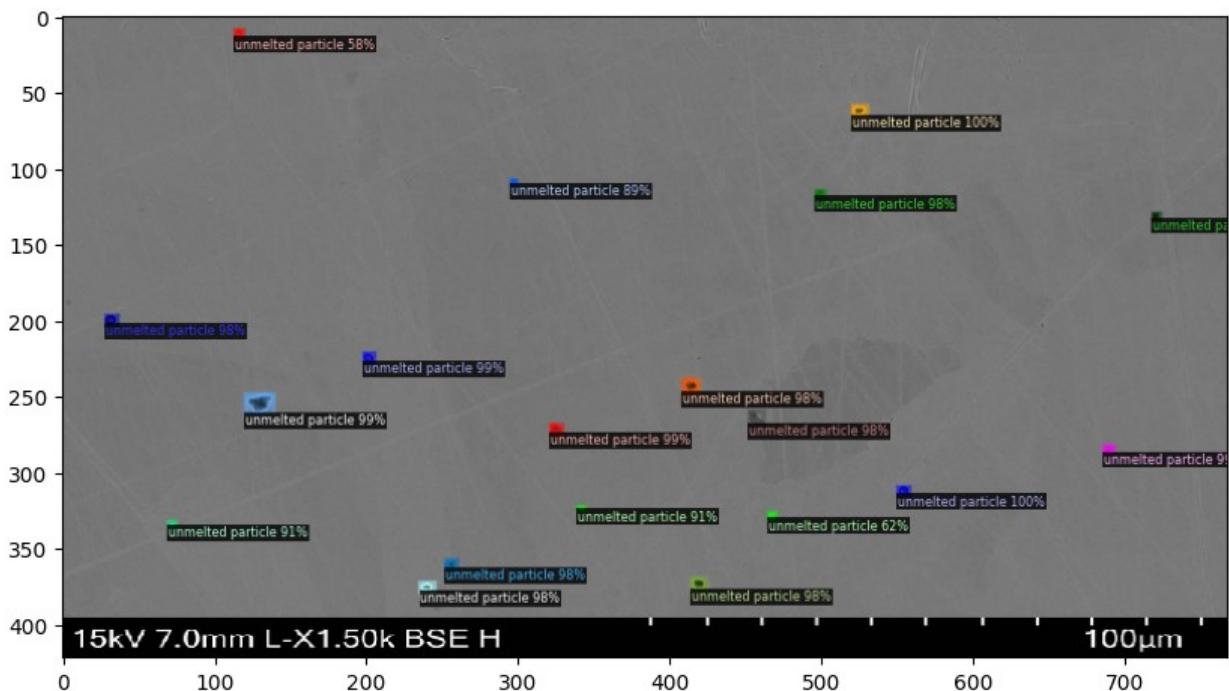
```
from detectron2.utils.visualizer import ColorMode
dataset_dicts = get_r_dicts('/content/drive/MyDrive/Mahabub/test')
for d in random.sample(dataset_dicts, 4):
    im = cv2.imread(d["file_name"])
    outputs = predictor(im)
    v = Visualizer(im[:, :, ::-1],
```

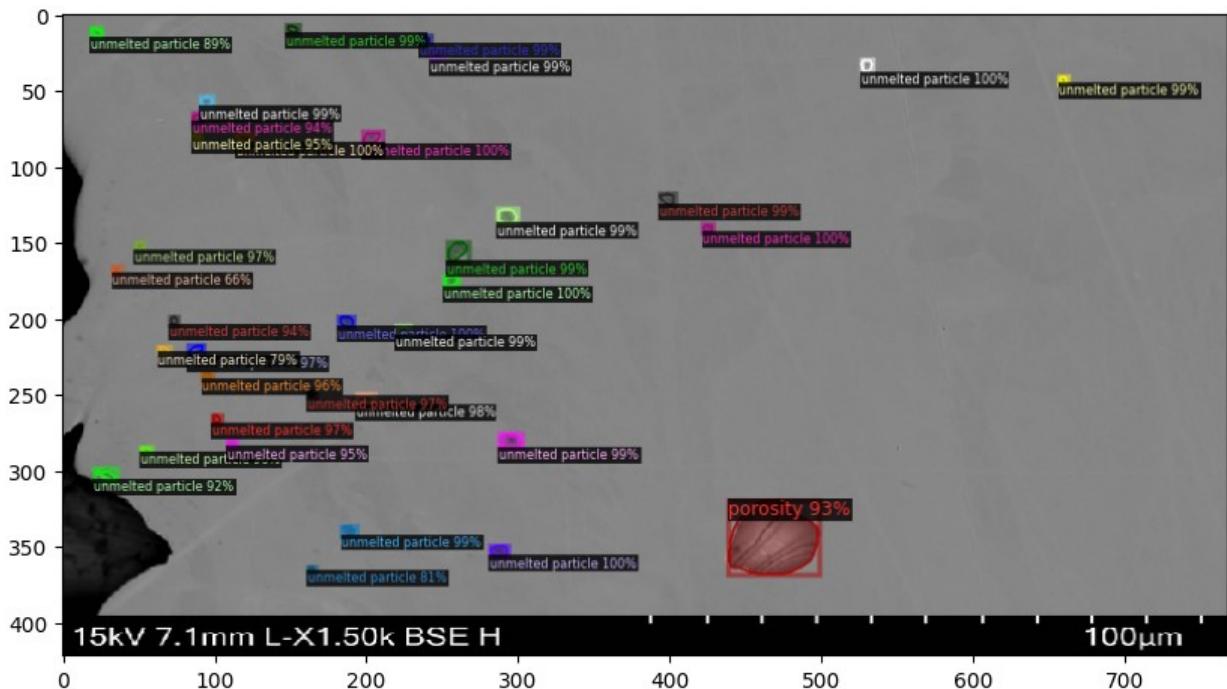
```

        metadata=r_metadata,
        scale=0.8,
        instance_mode=ColorMode.IMAGE_BW    # remove the
colors of unsegmented pixels
    )
v = v.draw_instance_predictions(outputs["instances"].to("cpu"))
plt.figure(figsize = (10, 10))
plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1],
cv2.COLOR_BGR2RGB))
plt.show()

```

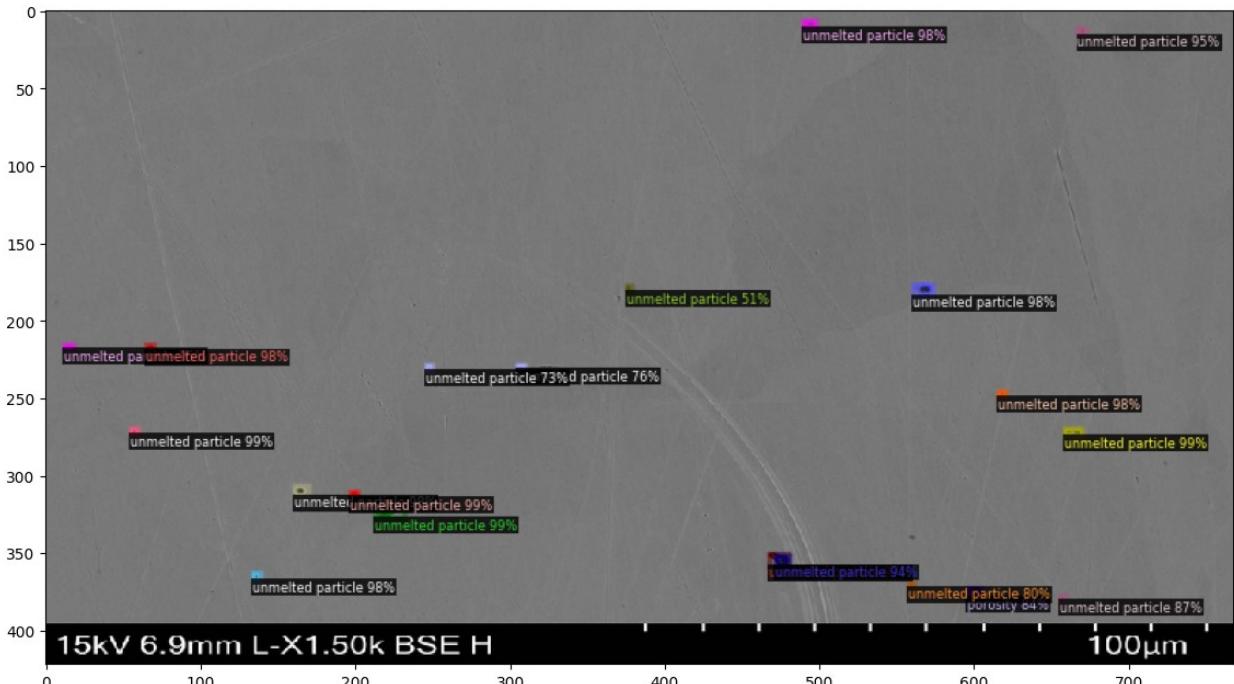






```
from detectron2.utils.visualizer import ColorMode

im =
cv2.imread("/content/drive/MyDrive/Mahabub/test/rsz_slm_square_final1
5k_0060.jpg")
outputs = predictor(im)
v = Visualizer(im[:, :, ::-1],
                metadata=r_metadata,
                scale=0.8,
                instance_mode=ColorMode.IMAGE_BW    # remove the colors
of unsegmented pixels
)
v = v.draw_instance_predictions(outputs["instances"].to("cpu"))
plt.figure(figsize = (14, 10))
plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1], cv2.COLOR_BGR2RGB))
plt.show()
```



```

from detectron2.evaluation import COCOEvaluator, inference_on_dataset
from detectron2.data import build_detection_test_loader
evaluator = COCOEvaluator("p_train", ['bbox'], False,
output_dir=".output/")
val_loader = build_detection_test_loader(cfg, "p_train")
print(inference_on_dataset(predictor.model, val_loader, evaluator))

[08/02 21:36:14 d2.evaluation.coco_evaluation]: Trying to convert
'p_train' to COCO format ...
[08/02 21:36:14 d2.data.datasets.coco]: Converting annotations of
dataset 'p_train' to COCO format ...
[08/02 21:36:14 d2.data.datasets.coco]: Converting dataset dicts into
COCO format
[08/02 21:36:14 d2.data.datasets.coco]: Conversion finished, #images:
42, #annotations: 715
[08/02 21:36:14 d2.data.datasets.coco]: Caching COCO format
annotations at './output/p_train_coco_format.json' ...
[08/02 21:36:14 d2.data.dataset_mapper]: [DatasetMapper] Augmentations
used in inference: [ResizeShortestEdge(short_edge_length=(800, 800),
max_size=1333, sample_style='choice')]
[08/02 21:36:14 d2.data.common]: Serializing the dataset using: <class
'detectron2.data.common._TorchSerializedList'>
[08/02 21:36:14 d2.data.common]: Serializing 42 elements to byte
tensors and concatenating them all ...
[08/02 21:36:14 d2.data.common]: Serialized dataset takes 0.16 MiB
[08/02 21:36:14 d2.evaluation.evaluator]: Start inference on 42
batches
[08/02 21:36:17 d2.evaluation.evaluator]: Inference done 11/42.

```

```
Dataloading: 0.0055 s/iter. Inference: 0.0995 s/iter. Eval: 0.0464
s/iter. Total: 0.1523 s/iter. ETA=0:00:04
[08/02 21:36:22 d2.evaluation.evaluator]: Total inference time:
0:00:05.920175 (0.160005 s / iter per device, on 1 devices)
[08/02 21:36:22 d2.evaluation.evaluator]: Total inference pure compute
time: 0:00:03 (0.100423 s / iter per device, on 1 devices)
[08/02 21:36:22 d2.evaluation.coco_evaluation]: Preparing results for
COCO format ...
[08/02 21:36:22 d2.evaluation.coco_evaluation]: Saving results to
./output/coco_instances_results.json
[08/02 21:36:22 d2.evaluation.coco_evaluation]: Evaluating predictions
with unofficial COCO API...
Loading and preparing results...
DONE (t=0.00s)
creating index...
index created!
[08/02 21:36:22 d2.evaluation.fast_eval_api]: Evaluate annotation type
*bbox*
[08/02 21:36:22 d2.evaluation.fast_eval_api]: COCOeval_opt.evaluate()
finished in 0.06 seconds.
[08/02 21:36:22 d2.evaluation.fast_eval_api]: Accumulating evaluation
results...
[08/02 21:36:22 d2.evaluation.fast_eval_api]:
COCOeval_opt.accumulate() finished in 0.03 seconds.
    Average Precision (AP) @[ IoU=0.50:0.95 | area=   all | maxDets=100 ] = 0.351
    Average Precision (AP) @[ IoU=0.50         | area=   all | maxDets=100 ] = 0.580
    Average Precision (AP) @[ IoU=0.75         | area=   all | maxDets=100 ] = 0.359
    Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.333
    Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.589
    Average Precision (AP) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = -1.000
    Average Recall     (AR) @[ IoU=0.50:0.95 | area=   all | maxDets=1 ] = 0.135
    Average Recall     (AR) @[ IoU=0.50:0.95 | area=   all | maxDets=10 ] = 0.336
    Average Recall     (AR) @[ IoU=0.50:0.95 | area=   all | maxDets=100 ] = 0.389
    Average Recall     (AR) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.375
    Average Recall     (AR) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.617
    Average Recall     (AR) @[ IoU=0.50:0.95 | area= large | maxDets=100 ] = -1.000
[08/02 21:36:22 d2.evaluation.coco_evaluation]: Evaluation results for
```

```

bbox:
| AP | AP50 | AP75 | APs | APm | APl |
|-----|-----|-----|-----|-----|-----|
| 35.069 | 57.950 | 35.898 | 33.330 | 58.935 | nan |
[08/02 21:36:22 d2.evaluation.coco_evaluation]: Some metrics cannot be
computed and is shown as NaN.
[08/02 21:36:22 d2.evaluation.coco_evaluation]: Per-category bbox AP:
category | AP | category | AP | category | AP
|-----|-----|-----|-----|-----|-----|
| unmelted particle | 45.680 | porosity | 59.527 | microcrack | 0.000 |
OrderedDict([('bbox', {'AP': 35.06909121680845, 'AP50':
57.95042338370637, 'AP75': 35.89796088735046, 'APs':
33.33042508424789, 'APm': 58.93515542030394, 'APl': nan, 'AP-unmelted
particle': 45.67987254228592, 'AP-porosity': 59.52740110813942, 'AP-
microcrack': 0.0}))]

import cv2
import numpy as np
import json
from detectron2.config import get_cfg
from detectron2.engine import DefaultPredictor
from detectron2.utils.visualizer import Visualizer
from detectron2.data import MetadataCatalog
from google.colab.patches import cv2_imshow

# Conversion factor: 1 pixel = 0.1 cm (hypothetical value)
conversion_factor = 0.1 # Adjust this value based on your specific
conversion factor

# Load JSON annotations
annotations_path =
'/content/drive/MyDrive/Mahabub/train/rsz_slm_square_finalx15k_0014.js
on'
with open(annotations_path) as f:
    annotations_data = json.load(f)

# Extract annotations
annotations = annotations_data['shapes']

# Load corresponding image
image_path =
'/content/drive/MyDrive/Mahabub/train/rsz_slm_square_finalx15k_0014.jp
g'
image = cv2.imread(image_path)

# Create a black mask image for the background
mask = np.zeros_like(image[:, :, 0], dtype=np.uint8)

```

```

# Initialize variables for area calculations
cracks = []
unmelted_particle_area = 0
microcrack_area = 0
porosity_area = 0

# Iterate through annotations and calculate size, shape, volume, and
area for each crack
for annotation in annotations:
    # Extract label and points
    label = annotation['label']
    points = annotation['points']

    # Extract bounding box coordinates
    xmin = int(min(points, key=lambda x: x[0])[0])
    ymin = int(min(points, key=lambda x: x[1])[1])
    xmax = int(max(points, key=lambda x: x[0])[0])
    ymax = int(max(points, key=lambda x: x[1])[1])

    # Extract segmentation mask
    object_mask = np.zeros_like(image[:, :, 0], dtype=np.uint8)
    cv2.fillPoly(object_mask, np.array([points]), dtype=np.int32), 255)

    # Update the main mask based on the label
    if label == 'porosity':
        mask = cv2.bitwise_or(mask, object_mask)
        color = (0, 255, 0) # Green for porosity
        porosity_area += np.sum(object_mask)
    elif label == 'microcrack':
        mask = cv2.bitwise_or(mask, object_mask)
        color = (0, 0, 255) # Red for microcrack
        microcrack_area += np.sum(object_mask)
    elif label == 'unmelted particle':
        mask = cv2.bitwise_or(mask, object_mask)
        color = (255, 0, 0) # Blue for unmelted particle
        unmelted_particle_area += np.sum(object_mask)
    else:
        color = (255, 255, 255) # White for other objects

    # Draw bounding box and label on the image
    cv2.rectangle(image, (xmin, ymin), (xmax, ymax), color, 2)
    cv2.putText(image, label, (xmin, ymin - 10),
    cv2.FONT_HERSHEY_SIMPLEX, 0.9, color, 2)

    # Calculate the size of the crack (length, width, depth) in
centimeters
    length_cm = (xmax - xmin) * conversion_factor
    width_cm = (ymax - ymin) * conversion_factor
    depth_cm = 0.1 # Assuming the depth is 0.1 cm (hypothetical)

```

```

value)

# Calculate the volume of the crack in cubic centimeters (cc)
volume_cc = length_cm * width_cm * depth_cm

# Create a dictionary to store crack information
crack = {
    'label': label,
    'length_cm': length_cm,
    'width_cm': width_cm,
    'depth_cm': depth_cm,
    'volume_cc': volume_cc,
    'area': np.sum(object_mask)
}

# Add the crack to the list of cracks
cracks.append(crack)

# Apply the mask to the original image
masked_image = cv2.bitwise_and(image, image, mask=mask)

# Create a Detectron2 configuration
cfg = get_cfg()
cfg.merge_from_file(model_zoo.get_config_file("COCO-
InstanceSegmentation/mask_rcnn_R_50_FPN_3x.yaml"))
cfg.MODEL.ROI_HEADS.SCORE_THRESH_TEST = 0.5
cfg.MODEL.WEIGHTS = model_zoo.get_checkpoint_url("COCO-
InstanceSegmentation/mask_rcnn_R_50_FPN_3x.yaml")
predictor = DefaultPredictor(cfg)

# Run the Mask R-CNN model on the image
outputs = predictor(image)

# Visualize the predictions
v = Visualizer(image[:, :, ::-1],
MetadataCatalog.get(cfg.DATASETS.TRAIN[0]), scale=1.2)
out = v.draw_instance_predictions(outputs["instances"].to("cpu"))

# Get the annotated image
annotated_image = out.get_image()[:, :, ::-1]

# Calculate average areas
num_unmelted_particles = sum(1 for annotation in annotations if
annotation['label'] == 'unmelted particle')
num_microcracks = sum(1 for annotation in annotations if
annotation['label'] == 'microcrack')
num_porosities = sum(1 for annotation in annotations if
annotation['label'] == 'porosity')

average_unmelted_particle_area = (unmelted_particle_area /

```

```

num_unmelted_particles) * (conversion_factor ** 2) if
num_unmelted_particles > 0 else 0
average_microcrack_area = (microcrack_area / num_microcracks) *
(conversion_factor ** 2) if num_microcracks > 0 else 0
average_porosity_area = (porosity_area / num_porosities) *
(conversion_factor ** 2) if num_porosities > 0 else 0

# Print crack information
for i, crack in enumerate(cracks):
    print(f"Crack {i+1}:")
    print(f"Label: {crack['label']}")
    print(f"Length: {crack['length_cm']:.2f} cm")
    print(f"Width: {crack['width_cm']:.2f} cm")
    print(f"Depth: {crack['depth_cm']:.2f} cm")
    print(f"Volume: {crack['volume_cc']:.2f} cc")
    print(f"Area: {crack['area']} pixels^2\n")

# Print average area calculations
print(f"Average area of microcracks: {average_microcrack_area:.2f} cm^2")
print(f"Average area of porosity: {average_porosity_area:.2f} cm^2")
print(f"Average area of unmelted particles: {average_unmelted_particle_area:.2f} cm^2")

# Display the images
cv2_imshow(image)
cv2_imshow(masked_image)
cv2_imshow(annotated_image)

[07/30 21:46:57 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...
Crack 1:
Label: microcrack
Length: 8.10 cm
Width: 12.00 cm
Depth: 0.10 cm
Volume: 9.72 cc
Area: 514845 pixels^2

Crack 2:
Label: unmelted particle
Length: 1.60 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.16 cc
Area: 33660 pixels^2

Crack 3:

```

Label: unmelted particle
Length: 3.00 cm
Width: 2.10 cm
Depth: 0.10 cm
Volume: 0.63 cc
Area: 118065 pixels²

Crack 4:
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 9180 pixels²

Crack 5:
Label: unmelted particle
Length: 2.20 cm
Width: 1.70 cm
Depth: 0.10 cm
Volume: 0.37 cc
Area: 61455 pixels²

Crack 6:
Label: unmelted particle
Length: 0.90 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 16575 pixels²

Crack 7:
Label: unmelted particle
Length: 2.50 cm
Width: 2.50 cm
Depth: 0.10 cm
Volume: 0.62 cc
Area: 99195 pixels²

Crack 8:
Label: porosity
Length: 1.20 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.11 cc
Area: 25755 pixels²

Crack 9:
Label: porosity
Length: 0.70 cm

Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11985 pixels²

Crack 10:
Label: unmelted particle
Length: 0.80 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14280 pixels²

Crack 11:
Label: unmelted particle
Length: 0.90 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 10710 pixels²

Crack 12:
Label: unmelted particle
Length: 0.40 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6630 pixels²

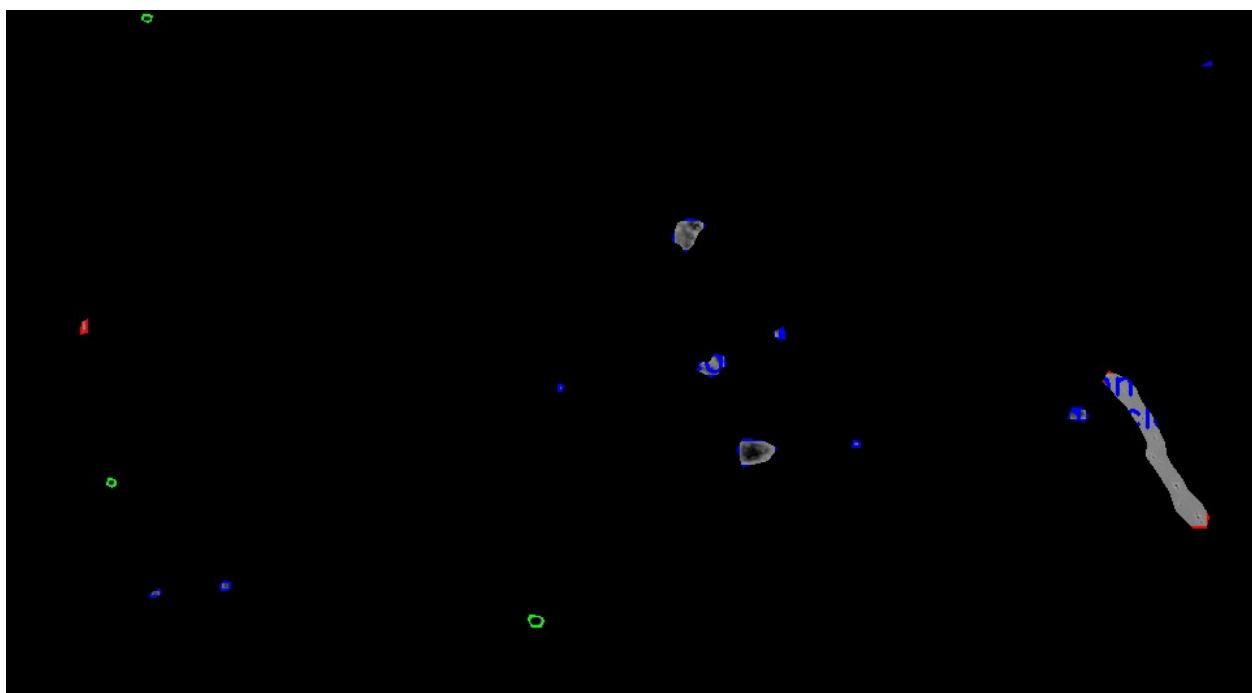
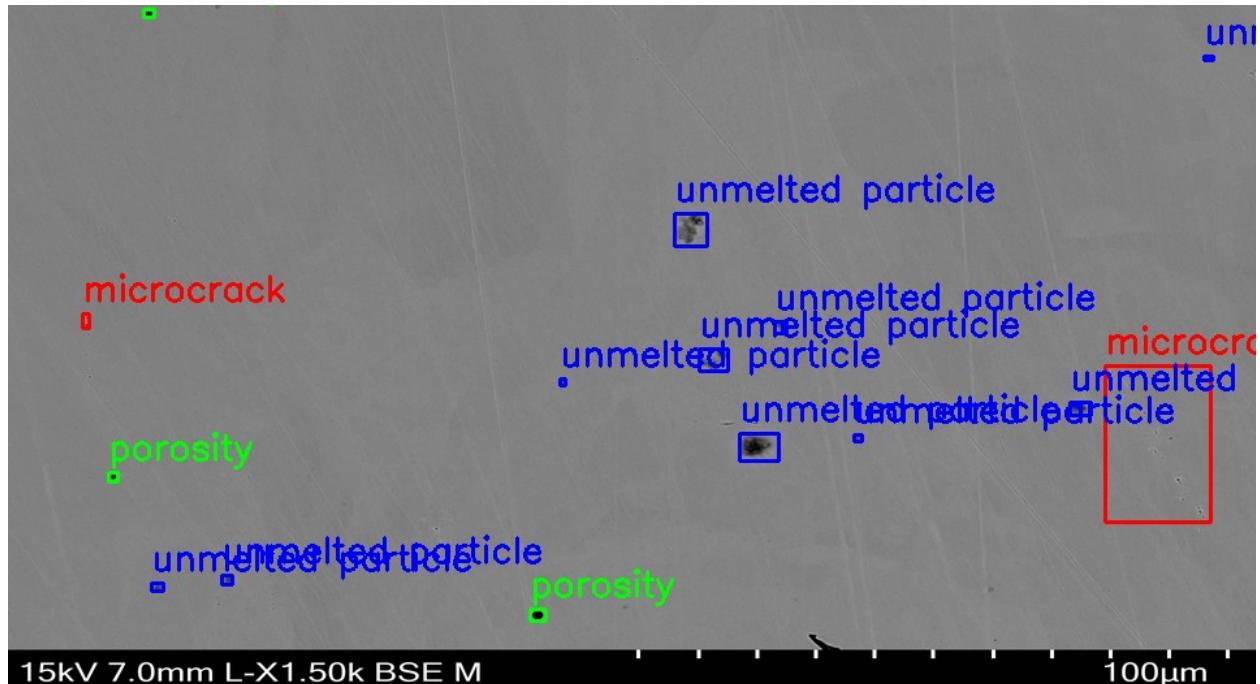
Crack 13:
Label: porosity
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11985 pixels²

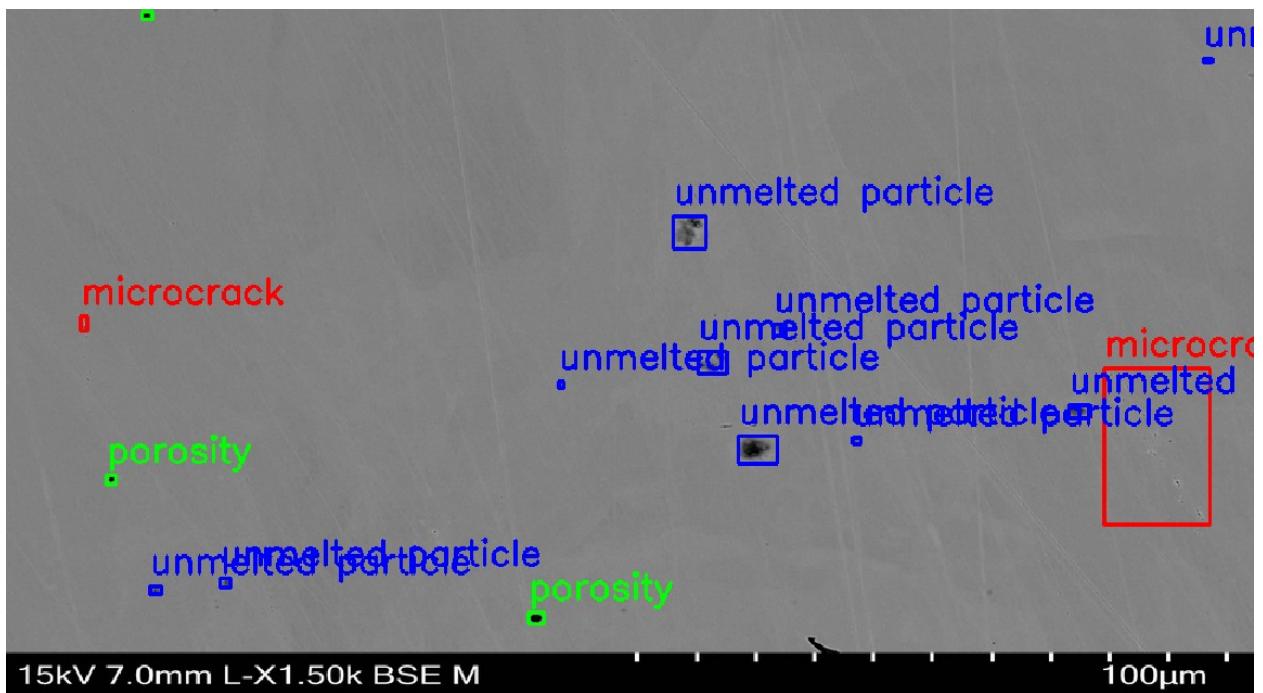
Crack 14:
Label: microcrack
Length: 0.50 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14535 pixels²

Crack 15:
Label: unmelted particle
Length: 0.70 cm
Width: 0.30 cm
Depth: 0.10 cm

Volume: 0.02 cc
Area: 5100 pixels²

Average area of microcracks: 2646.90 cm²
Average area of porosity: 165.75 cm²
Average area of unmelted particles: 374.85 cm²





```
import cv2
import numpy as np
import json
import os
from detectron2.config import get_cfg
from detectron2.engine import DefaultPredictor
from detectron2.utils.visualizer import Visualizer
from detectron2.data import MetadataCatalog
from google.colab.patches import cv2_imshow
# Conversion factor: 1 pixel = 0.1 cm (hypothetical value)
conversion_factor = 0.1 # Adjust this value based on your specific
conversion factor

# Path to the directory containing the images and JSON files
data_dir = '/content/drive/MyDrive/Mahabub/train' # Replace with the
actual path to the directory

# Iterate over all files in the directory
for filename in os.listdir(data_dir):
    if filename.endswith('.json'):
        # Load JSON annotations
        annotations_path = os.path.join(data_dir, filename)
        with open(annotations_path) as f:
            annotations_data = json.load(f)

        # Extract annotations
        annotations = annotations_data['shapes']

        # Load corresponding image
```

```

image_filename = os.path.splitext(filename)[0] + '.jpg'
image_path = os.path.join(data_dir, image_filename)
image = cv2.imread(image_path)

# Create a black mask image for the background
mask = np.zeros_like(image[:, :, 0], dtype=np.uint8)

# Initialize variables for area calculations
cracks = []
unmelted_particle_area = 0
microcrack_area = 0
porosity_area = 0

# Iterate through annotations and calculate size, shape,
volume, and area for each crack
for annotation in annotations:
    # Extract label and points
    label = annotation['label']
    points = annotation['points']

    # Extract bounding box coordinates
    xmin = int(min(points, key=lambda x: x[0])[0])
    ymin = int(min(points, key=lambda x: x[1])[1])
    xmax = int(max(points, key=lambda x: x[0])[0])
    ymax = int(max(points, key=lambda x: x[1])[1])

    # Extract segmentation mask
    object_mask = np.zeros_like(image[:, :, 0],
                                 dtype=np.uint8)
    cv2.fillPoly(object_mask, np.array([points]),
                 dtype=np.int32), 255

    # Update the main mask based on the label
    if label == 'porosity':
        mask = cv2.bitwise_or(mask, object_mask)
        color = (0, 255, 0) # Green for porosity
        porosity_area += np.sum(object_mask)
    elif label == 'microcrack':
        mask = cv2.bitwise_or(mask, object_mask)
        color = (0, 0, 255) # Red for microcrack
        microcrack_area += np.sum(object_mask)
    elif label == 'unmelted particle':
        mask = cv2.bitwise_or(mask, object_mask)
        color = (255, 0, 0) # Blue for unmelted particle
        unmelted_particle_area += np.sum(object_mask)
    else:
        color = (255, 255, 255) # White for other objects

# Draw bounding box and label on the image
cv2.rectangle(image, (xmin, ymin), (xmax, ymax), color, 2)

```

```

        cv2.putText(image, label, (xmin, ymin - 10),
cv2.FONT_HERSHEY_SIMPLEX, 0.9, color, 2)

    # Calculate the size of the crack (length, width, depth)
    # in centimeters
    length_cm = (xmax - xmin) * conversion_factor
    width_cm = (ymax - ymin) * conversion_factor
    depth_cm = 0.1 # Assuming the depth is 0.1 cm
    # (hypothetical value)

    # Calculate the volume of the crack in cubic centimeters
    (cc)
    volume_cc = length_cm * width_cm * depth_cm

    # Create a dictionary to store crack information
    crack = {
        'label': label,
        'length_cm': length_cm,
        'width_cm': width_cm,
        'depth_cm': depth_cm,
        'volume_cc': volume_cc,
        'area': np.sum(object_mask)
    }

    # Add the crack to the list of cracks
    cracks.append(crack)

    # Apply the mask to the original image
    masked_image = cv2.bitwise_and(image, image, mask=mask)

    # Create a Detectron2 configuration
    cfg = get_cfg()
    cfg.merge_from_file(model_zoo.get_config_file("COCO-
    InstanceSegmentation/mask_rcnn_R_50_FPN_3x.yaml"))
    cfg.MODEL.ROI_HEADS.SCORE_THRESH_TEST = 0.5
    cfg.MODEL.WEIGHTS = model_zoo.get_checkpoint_url("COCO-
    InstanceSegmentation/mask_rcnn_R_50_FPN_3x.yaml")
    predictor = DefaultPredictor(cfg)

    # Run the Mask R-CNN model on the image
    outputs = predictor(image)

    # Visualize the predictions
    v = Visualizer(image[:, :, ::-1],
MetadataCatalog.get(cfg.DATASETS.TRAIN[0]), scale=1.2)
    out =
v.draw_instance_predictions(outputs["instances"].to("cpu"))

    # Get the annotated image
    annotated_image = out.get_image()[:, :, ::-1]

```

```

# Calculate average areas
    num_unmelted_particles = sum(1 for annotation in annotations
if annotation['label'] == 'unmelted particle')
        num_microcracks = sum(1 for annotation in annotations if
annotation['label'] == 'microcrack')
            num_porosities = sum(1 for annotation in annotations if
annotation['label'] == 'porosity')

                average_unmelted_particle_area = (unmelted_particle_area /
num_unmelted_particles) * (
                    conversion_factor ** 2) if num_unmelted_particles > 0
else 0
            average_microcrack_area = (microcrack_area / num_microcracks)
* (
                conversion_factor ** 2) if num_microcracks > 0 else 0
            average_porosity_area = (porosity_area / num_porosities) * (
                conversion_factor ** 2) if num_porosities > 0 else 0

# Print crack information
for i, crack in enumerate(cracks):
    print(f"Crack {i + 1}:")
    print(f"Label: {crack['label']}")
    print(f"Length: {crack['length_cm']:.2f} cm")
    print(f"Width: {crack['width_cm']:.2f} cm")
    print(f"Depth: {crack['depth_cm']:.2f} cm")
    print(f"Volume: {crack['volume_cc']:.2f} cc")
    print(f"Area: {crack['area']} pixels^2\n")

# Print average area calculations
print(f"Average area of microcracks:
{average_microcrack_area:.2f} cm^2")
    print(f"Average area of unmelted particles:
{average_unmelted_particle_area:.2f} cm^2")
        print(f"Average area of porosities:
{average_porosity_area:.2f} cm^2\n")

```

Streaming output truncated to the last 5000 lines.

Width: 0.30 cm

Depth: 0.10 cm

Volume: 0.02 cc

Area: 5610 pixels²

Crack 20:

Label: unmelted particle

Length: 0.50 cm

Width: 0.30 cm

Depth: 0.10 cm

```
Volume: 0.02 cc
Area: 4335 pixels^2

Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 150.29 cm^2
Average area of porosities: 699.98 cm^2

[06/16 19:11:05 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/
mask_rcnn_R_50_FPN_3x/137849600/model_final_f10217.pkl ...
Crack 1:
Label: unmelted particle
Length: 4.10 cm
Width: 2.70 cm
Depth: 0.10 cm
Volume: 1.11 cc
Area: 186915 pixels^2

Crack 2:
Label: unmelted particle
Length: 0.90 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 17340 pixels^2

Crack 3:
Label: unmelted particle
Length: 0.60 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9945 pixels^2

Crack 4:
Label: unmelted particle
Length: 2.30 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.25 cc
Area: 48450 pixels^2

Crack 5:
Label: unmelted particle
Length: 2.70 cm
Width: 1.40 cm
Depth: 0.10 cm
Volume: 0.38 cc
Area: 82875 pixels^2
```

Crack 6:
Label: unmelted particle
Length: 1.50 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.17 cc
Area: 31110 pixels²

Crack 7:
Label: unmelted particle
Length: 1.00 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14280 pixels²

Crack 8:
Label: unmelted particle
Length: 1.70 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.14 cc
Area: 25500 pixels²

Crack 9:
Label: unmelted particle
Length: 0.50 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 4845 pixels²

Crack 10:
Label: unmelted particle
Length: 0.60 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 7140 pixels²

Crack 11:
Label: unmelted particle
Length: 0.40 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6375 pixels²

Crack 12:

Label: unmelted particle
Length: 1.40 cm
Width: 1.20 cm
Depth: 0.10 cm
Volume: 0.17 cc
Area: 30855 pixels²

Crack 13:
Label: unmelted particle
Length: 0.90 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 9435 pixels²

Crack 14:
Label: unmelted particle
Length: 0.80 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9435 pixels²

Crack 15:
Label: unmelted particle
Length: 0.80 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 10200 pixels²

Crack 16:
Label: unmelted particle
Length: 1.00 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.13 cc
Area: 28560 pixels²

Crack 17:
Label: unmelted particle
Length: 0.60 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 4845 pixels²

Crack 18:
Label: unmelted particle
Length: 0.90 cm

```
Width: 1.60 cm
Depth: 0.10 cm
Volume: 0.14 cc
Area: 26265 pixels^2

Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 307.98 cm^2
Average area of porosities: 0.00 cm^2

[06/16 19:11:06 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...
Crack 1:
Label: porosity
Length: 0.50 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7140 pixels^2

Crack 2:
Label: unmelted particle
Length: 1.60 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.13 cc
Area: 26775 pixels^2

Crack 3:
Label: unmelted particle
Length: 0.50 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6120 pixels^2

Crack 4:
Label: unmelted particle
Length: 1.60 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.16 cc
Area: 33660 pixels^2

Crack 5:
Label: unmelted particle
Length: 1.10 cm
Width: 1.40 cm
Depth: 0.10 cm
```

Volume: 0.15 cc
Area: 28560 pixels²

Crack 6:
Label: unmelted particle
Length: 1.70 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.22 cc
Area: 40800 pixels²

Crack 7:
Label: unmelted particle
Length: 0.90 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9435 pixels²

Crack 8:
Label: unmelted particle
Length: 1.10 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 21420 pixels²

Crack 9:
Label: unmelted particle
Length: 1.20 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 19890 pixels²

Crack 10:
Label: unmelted particle
Length: 0.80 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9435 pixels²

Crack 11:
Label: unmelted particle
Length: 3.10 cm
Width: 2.70 cm
Depth: 0.10 cm
Volume: 0.84 cc
Area: 109395 pixels²

Crack 12:
Label: unmelted particle
Length: 1.80 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.23 cc
Area: 52275 pixels²

Crack 13:
Label: unmelted particle
Length: 1.60 cm
Width: 1.20 cm
Depth: 0.10 cm
Volume: 0.19 cc
Area: 39015 pixels²

Crack 14:
Label: unmelted particle
Length: 0.60 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6630 pixels²

Crack 15:
Label: unmelted particle
Length: 1.00 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.13 cc
Area: 24735 pixels²

Crack 16:
Label: unmelted particle
Length: 1.80 cm
Width: 1.40 cm
Depth: 0.10 cm
Volume: 0.25 cc
Area: 47175 pixels²

Crack 17:
Label: unmelted particle
Length: 1.50 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.15 cc
Area: 33660 pixels²

Crack 18:

Label: unmelted particle
Length: 2.00 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.20 cc
Area: 37230 pixels²

Crack 19:
Label: unmelted particle
Length: 0.80 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 10710 pixels²

Crack 20:
Label: unmelted particle
Length: 0.40 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 3060 pixels²

Crack 21:
Label: porosity
Length: 1.00 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.09 cc
Area: 15555 pixels²

Crack 22:
Label: unmelted particle
Length: 1.40 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.11 cc
Area: 29580 pixels²

Crack 23:
Label: unmelted particle
Length: 2.90 cm
Width: 2.00 cm
Depth: 0.10 cm
Volume: 0.58 cc
Area: 130560 pixels²

Crack 24:
Label: unmelted particle
Length: 0.50 cm

```
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 5865 pixels^2

Crack 25:
Label: unmelted particle
Length: 0.60 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9690 pixels^2

Crack 26:
Label: unmelted particle
Length: 0.50 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 6885 pixels^2

Crack 27:
Label: unmelted particle
Length: 0.60 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 9435 pixels^2

Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 300.80 cm^2
Average area of porosities: 113.48 cm^2

[06/16 19:11:07 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...
Crack 1:
Label: unmelted particle
Length: 2.80 cm
Width: 2.20 cm
Depth: 0.10 cm
Volume: 0.62 cc
Area: 106335 pixels^2

Crack 2:
Label: unmelted particle
Length: 1.00 cm
Width: 0.70 cm
Depth: 0.10 cm
```

Volume: 0.07 cc
Area: 15300 pixels²

Crack 3:
Label: unmelted particle
Length: 1.10 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 15810 pixels²

Crack 4:
Label: unmelted particle
Length: 1.20 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 22950 pixels²

Crack 5:
Label: unmelted particle
Length: 1.50 cm
Width: 1.50 cm
Depth: 0.10 cm
Volume: 0.23 cc
Area: 40545 pixels²

Crack 6:
Label: unmelted particle
Length: 1.00 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 10965 pixels²

Crack 7:
Label: unmelted particle
Length: 1.20 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 12240 pixels²

Crack 8:
Label: unmelted particle
Length: 0.90 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 9945 pixels²

```
Crack 9:  
Label: unmelted particle  
Length: 1.00 cm  
Width: 0.40 cm  
Depth: 0.10 cm  
Volume: 0.04 cc  
Area: 9945 pixels^2
```

```
Crack 10:  
Label: unmelted particle  
Length: 0.60 cm  
Width: 0.50 cm  
Depth: 0.10 cm  
Volume: 0.03 cc  
Area: 8160 pixels^2
```

```
Average area of microcracks: 0.00 cm^2  
Average area of unmelted particles: 252.20 cm^2  
Average area of porosities: 0.00 cm^2
```

```
[06/16 19:11:08 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...
```

```
Crack 1:  
Label: unmelted particle  
Length: 1.10 cm  
Width: 0.90 cm  
Depth: 0.10 cm  
Volume: 0.10 cc  
Area: 23460 pixels^2
```

```
Crack 2:  
Label: unmelted particle  
Length: 0.80 cm  
Width: 0.70 cm  
Depth: 0.10 cm  
Volume: 0.06 cc  
Area: 14535 pixels^2
```

```
Crack 3:  
Label: unmelted particle  
Length: 0.80 cm  
Width: 0.70 cm  
Depth: 0.10 cm  
Volume: 0.06 cc  
Area: 11985 pixels^2
```

```
Crack 4:
```

Label: unmelted particle
Length: 0.60 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5355 pixels²

Crack 5:
Label: porosity
Length: 1.20 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 25245 pixels²

Crack 6:
Label: unmelted particle
Length: 0.80 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 12750 pixels²

Crack 7:
Label: unmelted particle
Length: 0.60 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9435 pixels²

Crack 8:
Label: unmelted particle
Length: 1.00 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 16320 pixels²

Crack 9:
Label: unmelted particle
Length: 0.50 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 6630 pixels²

Crack 10:
Label: unmelted particle
Length: 0.60 cm

Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 9180 pixels²

Crack 11:
Label: unmelted particle
Length: 0.80 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9945 pixels²

Crack 12:
Label: unmelted particle
Length: 0.90 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 14280 pixels²

Crack 13:
Label: unmelted particle
Length: 0.80 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 8415 pixels²

Crack 14:
Label: unmelted particle
Length: 0.90 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11475 pixels²

Crack 15:
Label: porosity
Length: 0.50 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5100 pixels²

Crack 16:
Label: unmelted particle
Length: 0.60 cm
Width: 0.40 cm
Depth: 0.10 cm

```
Volume: 0.02 cc
Area: 7395 pixels^2

Crack 17:
Label: unmelted particle
Length: 0.50 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 8415 pixels^2
```

```
Crack 18:
Label: unmelted particle
Length: 1.70 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.19 cc
Area: 36975 pixels^2
```

```
Crack 19:
Label: unmelted particle
Length: 0.60 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 10710 pixels^2
```

```
Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 127.80 cm^2
Average area of porosities: 151.73 cm^2
```

```
[06/16 19:11:09 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/
mask_rcnn_R_50_FPN_3x/137849600/model_final_f10217.pkl ...
```

```
Crack 1:
Label: unmelted particle
Length: 2.50 cm
Width: 2.00 cm
Depth: 0.10 cm
Volume: 0.50 cc
Area: 95625 pixels^2
```

```
Crack 2:
Label: unmelted particle
Length: 2.80 cm
Width: 1.50 cm
Depth: 0.10 cm
Volume: 0.42 cc
Area: 87720 pixels^2
```

```
Crack 3:  
Label: unmelted particle  
Length: 1.50 cm  
Width: 0.90 cm  
Depth: 0.10 cm  
Volume: 0.14 cc  
Area: 21675 pixels^2  
  
Crack 4:  
Label: unmelted particle  
Length: 1.40 cm  
Width: 1.10 cm  
Depth: 0.10 cm  
Volume: 0.15 cc  
Area: 35190 pixels^2  
  
Crack 5:  
Label: unmelted particle  
Length: 0.70 cm  
Width: 0.80 cm  
Depth: 0.10 cm  
Volume: 0.06 cc  
Area: 15300 pixels^2  
  
Crack 6:  
Label: unmelted particle  
Length: 0.40 cm  
Width: 0.60 cm  
Depth: 0.10 cm  
Volume: 0.02 cc  
Area: 6630 pixels^2  
  
Crack 7:  
Label: unmelted particle  
Length: 1.00 cm  
Width: 0.80 cm  
Depth: 0.10 cm  
Volume: 0.08 cc  
Area: 16575 pixels^2  
  
Average area of microcracks: 0.00 cm^2  
Average area of unmelted particles: 398.16 cm^2  
Average area of porosities: 0.00 cm^2  
  
[06/16 19:11:10 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...  
Crack 1:
```

Label: unmelted particle
Length: 1.90 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.21 cc
Area: 37485 pixels²

Crack 2:
Label: unmelted particle
Length: 1.50 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.20 cc
Area: 47430 pixels²

Crack 3:
Label: unmelted particle
Length: 0.80 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 21675 pixels²

Crack 4:
Label: unmelted particle
Length: 1.70 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.14 cc
Area: 29325 pixels²

Crack 5:
Label: unmelted particle
Length: 1.90 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.25 cc
Area: 45645 pixels²

Crack 6:
Label: unmelted particle
Length: 0.70 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11220 pixels²

Crack 7:
Label: unmelted particle
Length: 0.70 cm

```
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 10200 pixels^2

Crack 8:
Label: unmelted particle
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 12750 pixels^2

Crack 9:
Label: unmelted particle
Length: 0.50 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 6885 pixels^2

Crack 10:
Label: unmelted particle
Length: 1.90 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.21 cc
Area: 43350 pixels^2

Crack 11:
Label: unmelted particle
Length: 1.20 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 19635 pixels^2

Crack 12:
Label: porosity
Length: 0.30 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.01 cc
Area: 3315 pixels^2

Crack 13:
Label: unmelted particle
Length: 2.40 cm
Width: 1.70 cm
Depth: 0.10 cm
```

Volume: 0.41 cc
Area: 77520 pixels²

Crack 14:
Label: unmelted particle
Length: 1.40 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.11 cc
Area: 24735 pixels²

Crack 15:
Label: unmelted particle
Length: 1.50 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.17 cc
Area: 36210 pixels²

Crack 16:
Label: unmelted particle
Length: 0.60 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6120 pixels²

Crack 17:
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 9690 pixels²

Crack 18:
Label: unmelted particle
Length: 0.50 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5355 pixels²

Crack 19:
Label: unmelted particle
Length: 0.50 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5100 pixels²

```
Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 250.18 cm^2
Average area of porosities: 33.15 cm^2

[06/16 19:11:11 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/
mask_rcnn_R_50_FPN_3x/137849600/model_final_f10217.pkl ...
Crack 1:
Label: unmelted particle
Length: 3.60 cm
Width: 1.90 cm
Depth: 0.10 cm
Volume: 0.68 cc
Area: 141015 pixels^2

Crack 2:
Label: unmelted particle
Length: 5.10 cm
Width: 4.10 cm
Depth: 0.10 cm
Volume: 2.09 cc
Area: 355470 pixels^2

Crack 3:
Label: porosity
Length: 0.90 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 10965 pixels^2

Crack 4:
Label: unmelted particle
Length: 0.40 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 4335 pixels^2

Crack 5:
Label: unmelted particle
Length: 0.90 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 17085 pixels^2

Crack 6:
```

Label: unmelted particle
Length: 1.30 cm
Width: 1.20 cm
Depth: 0.10 cm
Volume: 0.16 cc
Area: 31620 pixels²

Crack 7:
Label: unmelted particle
Length: 1.20 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 17850 pixels²

Crack 8:
Label: unmelted particle
Length: 0.90 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 15555 pixels²

Crack 9:
Label: unmelted particle
Length: 1.10 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 21930 pixels²

Crack 10:
Label: unmelted particle
Length: 0.90 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14790 pixels²

Crack 11:
Label: unmelted particle
Length: 0.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9690 pixels²

Crack 12:
Label: unmelted particle
Length: 0.70 cm

```
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 10965 pixels^2
```

```
Crack 13:
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 6375 pixels^2
```

```
Crack 14:
Label: unmelted particle
Length: 0.90 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 12240 pixels^2
```

```
Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 506.86 cm^2
Average area of porosities: 109.65 cm^2
```

```
[06/16 19:11:12 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/
mask_rcnn_R_50_FPN_3x/137849600/model_final_f10217.pkl ...
```

```
Crack 1:
Label: unmelted particle
Length: 1.70 cm
Width: 1.50 cm
Depth: 0.10 cm
Volume: 0.26 cc
Area: 39015 pixels^2
```

```
Crack 2:
Label: unmelted particle
Length: 1.40 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.15 cc
Area: 33660 pixels^2
```

```
Crack 3:
Label: unmelted particle
Length: 1.80 cm
Width: 0.80 cm
Depth: 0.10 cm
```

Volume: 0.14 cc
Area: 30345 pixels²

Crack 4:
Label: unmelted particle
Length: 1.30 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.12 cc
Area: 28305 pixels²

Crack 5:
Label: unmelted particle
Length: 0.90 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 15045 pixels²

Crack 6:
Label: unmelted particle
Length: 1.10 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.09 cc
Area: 20400 pixels²

Crack 7:
Label: unmelted particle
Length: 1.10 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 22950 pixels²

Crack 8:
Label: unmelted particle
Length: 1.20 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 13515 pixels²

Crack 9:
Label: unmelted particle
Length: 0.50 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 2550 pixels²

Crack 10:
Label: unmelted particle
Length: 0.90 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 19635 pixels²

Crack 11:
Label: unmelted particle
Length: 0.70 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 13260 pixels²

Crack 12:
Label: unmelted particle
Length: 1.10 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 19380 pixels²

Crack 13:
Label: unmelted particle
Length: 0.40 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 3570 pixels²

Crack 14:
Label: unmelted particle
Length: 0.80 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9690 pixels²

Crack 15:
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 5865 pixels²

Crack 16:

```
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 5610 pixels^2
```

```
Crack 17:
Label: unmelted particle
Length: 0.60 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 10455 pixels^2
```

```
Crack 18:
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 8160 pixels^2
```

```
Crack 19:
Label: unmelted particle
Length: 0.50 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7650 pixels^2
```

```
Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 162.66 cm^2
Average area of porosities: 0.00 cm^2
```

```
[06/16 19:11:13 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/
mask_rcnn_R_50_FPN_3x/137849600/model_final_f10217.pkl ...
Crack 1:
Label: porosity
Length: 1.40 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.18 cc
Area: 46920 pixels^2
```

```
Crack 2:
Label: unmelted particle
Length: 1.60 cm
```

Width: 1.20 cm
Depth: 0.10 cm
Volume: 0.19 cc
Area: 40290 pixels²

Crack 3:
Label: unmelted particle
Length: 1.50 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.15 cc
Area: 38250 pixels²

Crack 4:
Label: unmelted particle
Length: 1.00 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 21420 pixels²

Crack 5:
Label: unmelted particle
Length: 0.90 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.09 cc
Area: 18615 pixels²

Crack 6:
Label: microcrack
Length: 1.30 cm
Width: 2.30 cm
Depth: 0.10 cm
Volume: 0.30 cc
Area: 45390 pixels²

Crack 7:
Label: unmelted particle
Length: 0.60 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 7140 pixels²

Crack 8:
Label: unmelted particle
Length: 2.20 cm
Width: 1.60 cm
Depth: 0.10 cm

Volume: 0.35 cc
Area: 64260 pixels²

Crack 9:
Label: unmelted particle
Length: 0.90 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 16575 pixels²

Crack 10:
Label: unmelted particle
Length: 0.80 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14535 pixels²

Crack 11:
Label: unmelted particle
Length: 0.90 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 17085 pixels²

Crack 12:
Label: unmelted particle
Length: 0.90 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11475 pixels²

Crack 13:
Label: unmelted particle
Length: 0.70 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 7905 pixels²

Crack 14:
Label: unmelted particle
Length: 0.70 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 13770 pixels²

```
Crack 15:  
Label: unmelted particle  
Length: 0.50 cm  
Width: 0.50 cm  
Depth: 0.10 cm  
Volume: 0.03 cc  
Area: 7905 pixels^2  
  
Crack 16:  
Label: unmelted particle  
Length: 0.50 cm  
Width: 0.50 cm  
Depth: 0.10 cm  
Volume: 0.03 cc  
Area: 6885 pixels^2  
  
Crack 17:  
Label: unmelted particle  
Length: 0.70 cm  
Width: 0.40 cm  
Depth: 0.10 cm  
Volume: 0.03 cc  
Area: 7650 pixels^2  
  
Average area of microcracks: 453.90 cm^2  
Average area of unmelted particles: 195.84 cm^2  
Average area of porosities: 469.20 cm^2  
  
[06/16 19:11:14 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...  
Crack 1:  
Label: unmelted particle  
Length: 2.60 cm  
Width: 2.10 cm  
Depth: 0.10 cm  
Volume: 0.55 cc  
Area: 111180 pixels^2  
  
Crack 2:  
Label: porosity  
Length: 4.50 cm  
Width: 2.50 cm  
Depth: 0.10 cm  
Volume: 1.12 cc  
Area: 128775 pixels^2  
  
Crack 3:
```

Label: unmelted particle
Length: 0.50 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 7140 pixels²

Crack 4:
Label: unmelted particle
Length: 1.70 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.17 cc
Area: 36720 pixels²

Crack 5:
Label: unmelted particle
Length: 1.80 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.14 cc
Area: 27030 pixels²

Crack 6:
Label: unmelted particle
Length: 1.20 cm
Width: 1.20 cm
Depth: 0.10 cm
Volume: 0.14 cc
Area: 34170 pixels²

Crack 7:
Label: unmelted particle
Length: 1.20 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 18105 pixels²

Crack 8:
Label: unmelted particle
Length: 0.60 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 11985 pixels²

Crack 9:
Label: unmelted particle
Length: 1.40 cm

```
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.14 cc
Area: 30345 pixels^2

Crack 10:
Label: unmelted particle
Length: 0.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 6630 pixels^2

Crack 11:
Label: unmelted particle
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 10200 pixels^2

Crack 12:
Label: unmelted particle
Length: 1.00 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 13770 pixels^2

Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 279.34 cm^2
Average area of porosities: 1287.75 cm^2

[06/16 19:11:15 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...
Crack 1:
Label: porosity
Length: 5.90 cm
Width: 2.70 cm
Depth: 0.10 cm
Volume: 1.59 cc
Area: 289170 pixels^2

Crack 2:
Label: unmelted particle
Length: 2.40 cm
Width: 1.70 cm
Depth: 0.10 cm
```

Volume: 0.41 cc
Area: 85935 pixels²

Crack 3:
Label: unmelted particle
Length: 2.00 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.26 cc
Area: 49470 pixels²

Crack 4:
Label: microcrack
Length: 1.20 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.11 cc
Area: 23970 pixels²

Crack 5:
Label: unmelted particle
Length: 1.30 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 25755 pixels²

Crack 6:
Label: unmelted particle
Length: 0.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9435 pixels²

Crack 7:
Label: unmelted particle
Length: 0.70 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 10455 pixels²

Crack 8:
Label: unmelted particle
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11475 pixels²

Crack 9:
Label: unmelted particle
Length: 0.40 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6885 pixels²

Crack 10:
Label: unmelted particle
Length: 1.40 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.13 cc
Area: 30855 pixels²

Crack 11:
Label: unmelted particle
Length: 0.60 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6630 pixels²

Crack 12:
Label: unmelted particle
Length: 1.20 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 17340 pixels²

Crack 13:
Label: unmelted particle
Length: 1.80 cm
Width: 1.20 cm
Depth: 0.10 cm
Volume: 0.22 cc
Area: 39525 pixels²

Crack 14:
Label: unmelted particle
Length: 0.70 cm
Width: 1.20 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 14280 pixels²

Crack 15:

Label: unmelted particle
Length: 0.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9690 pixels²

Crack 16:
Label: unmelted particle
Length: 1.00 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14025 pixels²

Crack 17:
Label: unmelted particle
Length: 1.10 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 19125 pixels²

Crack 18:
Label: unmelted particle
Length: 0.50 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5355 pixels²

Crack 19:
Label: unmelted particle
Length: 0.50 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7395 pixels²

Crack 20:
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 8670 pixels²

Crack 21:
Label: unmelted particle
Length: 0.60 cm

```
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 7905 pixels^2

Crack 22:
Label: unmelted particle
Length: 0.60 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 7140 pixels^2

Crack 23:
Label: unmelted particle
Length: 1.60 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 23715 pixels^2

Average area of microcracks: 239.70 cm^2
Average area of unmelted particles: 195.74 cm^2
Average area of porosities: 2891.70 cm^2

[06/16 19:11:16 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...
Crack 1:
Label: porosity
Length: 4.30 cm
Width: 3.00 cm
Depth: 0.10 cm
Volume: 1.29 cc
Area: 235620 pixels^2

Crack 2:
Label: unmelted particle
Length: 2.10 cm
Width: 1.80 cm
Depth: 0.10 cm
Volume: 0.38 cc
Area: 60690 pixels^2

Crack 3:
Label: unmelted particle
Length: 0.80 cm
Width: 1.00 cm
Depth: 0.10 cm
```

Volume: 0.08 cc
Area: 15810 pixels²

Crack 4:
Label: unmelted particle
Length: 1.20 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.13 cc
Area: 30090 pixels²

Crack 5:
Label: unmelted particle
Length: 1.00 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 24990 pixels²

Crack 6:
Label: unmelted particle
Length: 1.10 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 12750 pixels²

Crack 7:
Label: unmelted particle
Length: 1.20 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 19890 pixels²

Crack 8:
Label: unmelted particle
Length: 1.20 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.12 cc
Area: 24735 pixels²

Crack 9:
Label: unmelted particle
Length: 1.10 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 16320 pixels²

Crack 10:
Label: unmelted particle
Length: 1.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.09 cc
Area: 20655 pixels²

Crack 11:
Label: unmelted particle
Length: 1.70 cm
Width: 1.20 cm
Depth: 0.10 cm
Volume: 0.20 cc
Area: 36465 pixels²

Crack 12:
Label: unmelted particle
Length: 1.30 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 15300 pixels²

Crack 13:
Label: unmelted particle
Length: 0.90 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 15045 pixels²

Crack 14:
Label: unmelted particle
Length: 0.70 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14535 pixels²

Crack 15:
Label: unmelted particle
Length: 0.40 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5610 pixels²

Crack 16:

Label: unmelted particle
Length: 0.70 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 6120 pixels²

Average area of microcracks: 0.00 cm²
Average area of unmelted particles: 212.67 cm²
Average area of porosities: 2356.20 cm²

[06/16 19:11:17 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask_rcnn_R_50_FPN_3x/137849600/model_final_f10217.pkl ...

Crack 1:

Label: porosity
Length: 1.40 cm
Width: 1.50 cm
Depth: 0.10 cm
Volume: 0.21 cc
Area: 44370 pixels²

Crack 2:

Label: porosity
Length: 3.20 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.35 cc
Area: 76500 pixels²

Crack 3:

Label: porosity
Length: 1.10 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.09 cc
Area: 23205 pixels²

Crack 4:

Label: unmelted particle
Length: 2.10 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.21 cc
Area: 48960 pixels²

Crack 5:

Label: unmelted particle
Length: 0.40 cm

Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.01 cc
Area: 3825 pixels²

Crack 6:
Label: porosity
Length: 1.10 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 18615 pixels²

Crack 7:
Label: unmelted particle
Length: 0.40 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.01 cc
Area: 3825 pixels²

Crack 8:
Label: unmelted particle
Length: 0.80 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 11985 pixels²

Crack 9:
Label: unmelted particle
Length: 0.40 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 9435 pixels²

Crack 10:
Label: unmelted particle
Length: 0.50 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6120 pixels²

Crack 11:
Label: unmelted particle
Length: 0.50 cm
Width: 0.40 cm
Depth: 0.10 cm

```
Volume: 0.02 cc
Area: 5610 pixels^2

Crack 12:
Label: unmelted particle
Length: 0.70 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 8160 pixels^2

Crack 13:
Label: unmelted particle
Length: 0.90 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 15300 pixels^2

Crack 14:
Label: unmelted particle
Length: 0.50 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5355 pixels^2

Crack 15:
Label: unmelted particle
Length: 2.40 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.31 cc
Area: 65280 pixels^2

Crack 16:
Label: unmelted particle
Length: 1.70 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.19 cc
Area: 39780 pixels^2

Crack 17:
Label: unmelted particle
Length: 1.10 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.14 cc
Area: 30600 pixels^2
```

Crack 18:
Label: unmelted particle
Length: 0.60 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 8670 pixels²

Crack 19:
Label: unmelted particle
Length: 2.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.14 cc
Area: 29070 pixels²

Crack 20:
Label: unmelted particle
Length: 0.40 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 6885 pixels²

Crack 21:
Label: unmelted particle
Length: 0.40 cm
Width: 0.20 cm
Depth: 0.10 cm
Volume: 0.01 cc
Area: 2550 pixels²

Crack 22:
Label: unmelted particle
Length: 0.30 cm
Width: 0.20 cm
Depth: 0.10 cm
Volume: 0.01 cc
Area: 2040 pixels²

Crack 23:
Label: unmelted particle
Length: 0.60 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5610 pixels²

Crack 24:

Label: unmelted particle
Length: 0.70 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11730 pixels²

Crack 25:
Label: microcrack
Length: 1.50 cm
Width: 1.60 cm
Depth: 0.10 cm
Volume: 0.24 cc
Area: 49470 pixels²

Crack 26:
Label: microcrack
Length: 1.60 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.21 cc
Area: 38505 pixels²

Crack 27:
Label: unmelted particle
Length: 2.00 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.26 cc
Area: 59415 pixels²

Crack 28:
Label: unmelted particle
Length: 0.80 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 11220 pixels²

Crack 29:
Label: unmelted particle
Length: 0.50 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7395 pixels²

Crack 30:
Label: unmelted particle
Length: 0.80 cm

```
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 9180 pixels^2

Average area of microcracks: 439.88 cm^2
Average area of unmelted particles: 170.00 cm^2
Average area of porosities: 406.73 cm^2

[06/16 19:11:18 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...
Crack 1:
Label: porosity
Length: 1.80 cm
Width: 1.20 cm
Depth: 0.10 cm
Volume: 0.22 cc
Area: 48195 pixels^2

Crack 2:
Label: porosity
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11220 pixels^2

Crack 3:
Label: unmelted particle
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 14790 pixels^2

Crack 4:
Label: unmelted particle
Length: 1.00 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 20400 pixels^2

Crack 5:
Label: unmelted particle
Length: 0.70 cm
Width: 0.40 cm
Depth: 0.10 cm
```

Volume: 0.03 cc
Area: 8415 pixels²

Crack 6:
Label: unmelted particle
Length: 0.40 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 4335 pixels²

Crack 7:
Label: unmelted particle
Length: 0.80 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9180 pixels²

Crack 8:
Label: porosity
Length: 2.70 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.30 cc
Area: 51255 pixels²

Crack 9:
Label: unmelted particle
Length: 1.50 cm
Width: 2.90 cm
Depth: 0.10 cm
Volume: 0.44 cc
Area: 42075 pixels²

Crack 10:
Label: unmelted particle
Length: 0.50 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 6885 pixels²

Crack 11:
Label: unmelted particle
Length: 0.60 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 7140 pixels²

```
Crack 12:  
Label: unmelted particle  
Length: 0.50 cm  
Width: 0.40 cm  
Depth: 0.10 cm  
Volume: 0.02 cc  
Area: 6885 pixels^2
```

```
Crack 13:  
Label: unmelted particle  
Length: 0.60 cm  
Width: 0.60 cm  
Depth: 0.10 cm  
Volume: 0.04 cc  
Area: 10455 pixels^2
```

```
Average area of microcracks: 0.00 cm^2  
Average area of unmelted particles: 130.56 cm^2  
Average area of porosities: 368.90 cm^2
```

```
[06/16 19:11:18 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...
```

```
Crack 1:  
Label: porosity  
Length: 4.20 cm  
Width: 4.50 cm  
Depth: 0.10 cm  
Volume: 1.89 cc  
Area: 387855 pixels^2
```

```
Crack 2:  
Label: porosity  
Length: 1.20 cm  
Width: 0.90 cm  
Depth: 0.10 cm  
Volume: 0.11 cc  
Area: 26265 pixels^2
```

```
Crack 3:  
Label: unmelted particle  
Length: 1.40 cm  
Width: 0.90 cm  
Depth: 0.10 cm  
Volume: 0.13 cc  
Area: 27285 pixels^2
```

```
Crack 4:
```

Label: unmelted particle
Length: 0.50 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 10200 pixels²

Crack 5:
Label: unmelted particle
Length: 2.20 cm
Width: 1.50 cm
Depth: 0.10 cm
Volume: 0.33 cc
Area: 51765 pixels²

Crack 6:
Label: unmelted particle
Length: 0.50 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5865 pixels²

Crack 7:
Label: unmelted particle
Length: 0.40 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.01 cc
Area: 3570 pixels²

Crack 8:
Label: unmelted particle
Length: 1.00 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 13005 pixels²

Crack 9:
Label: unmelted particle
Length: 0.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9180 pixels²

Crack 10:
Label: unmelted particle
Length: 0.50 cm

Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 6375 pixels²

Crack 11:
Label: unmelted particle
Length: 1.10 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 16830 pixels²

Crack 12:
Label: unmelted particle
Length: 1.10 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 17850 pixels²

Crack 13:
Label: unmelted particle
Length: 0.70 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7140 pixels²

Crack 14:
Label: unmelted particle
Length: 0.60 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 8160 pixels²

Crack 15:
Label: unmelted particle
Length: 0.50 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7395 pixels²

Crack 16:
Label: unmelted particle
Length: 0.50 cm
Width: 0.20 cm
Depth: 0.10 cm

```
Volume: 0.01 cc
Area: 3570 pixels^2

Crack 17:
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7140 pixels^2

Crack 18:
Label: unmelted particle
Length: 0.90 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 17340 pixels^2

Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 132.92 cm^2
Average area of porosities: 2070.60 cm^2

[06/16 19:11:19 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...
Crack 1:
Label: microcrack
Length: 8.10 cm
Width: 12.00 cm
Depth: 0.10 cm
Volume: 9.72 cc
Area: 514845 pixels^2

Crack 2:
Label: unmelted particle
Length: 1.60 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.16 cc
Area: 33660 pixels^2

Crack 3:
Label: unmelted particle
Length: 3.00 cm
Width: 2.10 cm
Depth: 0.10 cm
Volume: 0.63 cc
Area: 118065 pixels^2
```

Crack 4:
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 9180 pixels²

Crack 5:
Label: unmelted particle
Length: 2.20 cm
Width: 1.70 cm
Depth: 0.10 cm
Volume: 0.37 cc
Area: 61455 pixels²

Crack 6:
Label: unmelted particle
Length: 0.90 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 16575 pixels²

Crack 7:
Label: unmelted particle
Length: 2.50 cm
Width: 2.50 cm
Depth: 0.10 cm
Volume: 0.62 cc
Area: 99195 pixels²

Crack 8:
Label: porosity
Length: 1.20 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.11 cc
Area: 25755 pixels²

Crack 9:
Label: porosity
Length: 0.70 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11985 pixels²

Crack 10:

Label: unmelted particle
Length: 0.80 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14280 pixels²

Crack 11:
Label: unmelted particle
Length: 0.90 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 10710 pixels²

Crack 12:
Label: unmelted particle
Length: 0.40 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6630 pixels²

Crack 13:
Label: porosity
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11985 pixels²

Crack 14:
Label: microcrack
Length: 0.50 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14535 pixels²

Crack 15:
Label: unmelted particle
Length: 0.70 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5100 pixels²

Average area of microcracks: 2646.90 cm²
Average area of unmelted particles: 374.85 cm²
Average area of porosities: 165.75 cm²

```
[06/16 19:11:20 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...  
Crack 1:  
Label: unmelted particle  
Length: 2.30 cm  
Width: 2.00 cm  
Depth: 0.10 cm  
Volume: 0.46 cc  
Area: 85170 pixels^2  
  
Crack 2:  
Label: unmelted particle  
Length: 1.40 cm  
Width: 1.20 cm  
Depth: 0.10 cm  
Volume: 0.17 cc  
Area: 33405 pixels^2  
  
Crack 3:  
Label: unmelted particle  
Length: 1.10 cm  
Width: 1.30 cm  
Depth: 0.10 cm  
Volume: 0.14 cc  
Area: 28050 pixels^2  
  
Crack 4:  
Label: unmelted particle  
Length: 0.80 cm  
Width: 0.70 cm  
Depth: 0.10 cm  
Volume: 0.06 cc  
Area: 11985 pixels^2  
  
Crack 5:  
Label: unmelted particle  
Length: 0.90 cm  
Width: 1.00 cm  
Depth: 0.10 cm  
Volume: 0.09 cc  
Area: 21930 pixels^2  
  
Crack 6:  
Label: unmelted particle  
Length: 1.00 cm  
Width: 0.60 cm  
Depth: 0.10 cm
```

Volume: 0.06 cc
Area: 14025 pixels²

Crack 7:
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7140 pixels²

Crack 8:
Label: unmelted particle
Length: 0.60 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 4335 pixels²

Crack 9:
Label: unmelted particle
Length: 0.60 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6885 pixels²

Crack 10:
Label: unmelted particle
Length: 1.10 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 19890 pixels²

Crack 11:
Label: unmelted particle
Length: 1.60 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.13 cc
Area: 26010 pixels²

Crack 12:
Label: unmelted particle
Length: 0.40 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5355 pixels²

```
Crack 13:  
Label: unmelted particle  
Length: 0.50 cm  
Width: 0.30 cm  
Depth: 0.10 cm  
Volume: 0.02 cc  
Area: 4590 pixels^2  
  
Crack 14:  
Label: unmelted particle  
Length: 0.60 cm  
Width: 0.50 cm  
Depth: 0.10 cm  
Volume: 0.03 cc  
Area: 8670 pixels^2  
  
Crack 15:  
Label: unmelted particle  
Length: 0.40 cm  
Width: 0.60 cm  
Depth: 0.10 cm  
Volume: 0.02 cc  
Area: 7905 pixels^2  
  
Average area of microcracks: 0.00 cm^2  
Average area of unmelted particles: 190.23 cm^2  
Average area of porosities: 0.00 cm^2  
  
[06/16 19:11:22 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...  
Crack 1:  
Label: unmelted particle  
Length: 3.60 cm  
Width: 2.10 cm  
Depth: 0.10 cm  
Volume: 0.76 cc  
Area: 141780 pixels^2  
  
Crack 2:  
Label: unmelted particle  
Length: 4.10 cm  
Width: 2.70 cm  
Depth: 0.10 cm  
Volume: 1.11 cc  
Area: 222360 pixels^2  
  
Crack 3:
```

Label: porosity
Length: 2.20 cm
Width: 1.90 cm
Depth: 0.10 cm
Volume: 0.42 cc
Area: 84405 pixels²

Crack 4:
Label: unmelted particle
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11220 pixels²

Crack 5:
Label: unmelted particle
Length: 1.10 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 13770 pixels²

Crack 6:
Label: unmelted particle
Length: 0.70 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 13260 pixels²

Crack 7:
Label: unmelted particle
Length: 0.90 cm
Width: 1.20 cm
Depth: 0.10 cm
Volume: 0.11 cc
Area: 23970 pixels²

Crack 8:
Label: unmelted particle
Length: 0.90 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 17595 pixels²

Crack 9:
Label: unmelted particle
Length: 0.90 cm

Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.09 cc
Area: 20655 pixels²

Crack 10:
Label: porosity
Length: 1.90 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.25 cc
Area: 57375 pixels²

Crack 11:
Label: unmelted particle
Length: 2.10 cm
Width: 1.50 cm
Depth: 0.10 cm
Volume: 0.32 cc
Area: 61200 pixels²

Crack 12:
Label: unmelted particle
Length: 0.70 cm
Width: 1.20 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 20145 pixels²

Crack 13:
Label: unmelted particle
Length: 1.00 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 16575 pixels²

Crack 14:
Label: unmelted particle
Length: 0.70 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 10200 pixels²

Crack 15:
Label: unmelted particle
Length: 0.60 cm
Width: 0.40 cm
Depth: 0.10 cm

```
Volume: 0.02 cc
Area: 6630 pixels^2

Crack 16:
Label: unmelted particle
Length: 0.40 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.01 cc
Area: 3570 pixels^2

Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 416.38 cm^2
Average area of porosities: 708.90 cm^2

[06/16 19:11:23 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/
mask_rcnn_R_50_FPN_3x/137849600/model_final_f10217.pkl ...
Crack 1:
Label: unmelted particle
Length: 0.80 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 17340 pixels^2

Crack 2:
Label: unmelted particle
Length: 0.50 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7650 pixels^2

Crack 3:
Label: porosity
Length: 0.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 7905 pixels^2

Crack 4:
Label: unmelted particle
Length: 0.60 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 7140 pixels^2
```

```
Crack 5:  
Label: unmelted particle  
Length: 0.50 cm  
Width: 0.50 cm  
Depth: 0.10 cm  
Volume: 0.03 cc  
Area: 5610 pixels^2
```

```
Crack 6:  
Label: unmelted particle  
Length: 0.60 cm  
Width: 0.40 cm  
Depth: 0.10 cm  
Volume: 0.02 cc  
Area: 7650 pixels^2
```

```
Average area of microcracks: 0.00 cm^2  
Average area of unmelted particles: 90.78 cm^2  
Average area of porosities: 79.05 cm^2
```

```
[06/16 19:11:24 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...
```

```
Crack 1:  
Label: unmelted particle  
Length: 1.40 cm  
Width: 1.40 cm  
Depth: 0.10 cm  
Volume: 0.20 cc  
Area: 38505 pixels^2
```

```
Crack 2:  
Label: porosity  
Length: 2.10 cm  
Width: 1.80 cm  
Depth: 0.10 cm  
Volume: 0.38 cc  
Area: 71655 pixels^2
```

```
Crack 3:  
Label: unmelted particle  
Length: 1.90 cm  
Width: 1.20 cm  
Depth: 0.10 cm  
Volume: 0.23 cc  
Area: 43095 pixels^2
```

```
Crack 4:
```

Label: unmelted particle
Length: 2.50 cm
Width: 1.60 cm
Depth: 0.10 cm
Volume: 0.40 cc
Area: 80070 pixels²

Crack 5:
Label: unmelted particle
Length: 1.40 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.18 cc
Area: 35445 pixels²

Crack 6:
Label: unmelted particle
Length: 0.90 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 14280 pixels²

Crack 7:
Label: unmelted particle
Length: 1.30 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.13 cc
Area: 23205 pixels²

Crack 8:
Label: unmelted particle
Length: 0.90 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11730 pixels²

Crack 9:
Label: unmelted particle
Length: 1.40 cm
Width: 1.50 cm
Depth: 0.10 cm
Volume: 0.21 cc
Area: 34680 pixels²

Crack 10:
Label: unmelted particle
Length: 1.70 cm

Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.19 cc
Area: 28050 pixels²

Crack 11:
Label: unmelted particle
Length: 0.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 7140 pixels²

Crack 12:
Label: unmelted particle
Length: 1.20 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 21165 pixels²

Crack 13:
Label: unmelted particle
Length: 0.60 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 15555 pixels²

Crack 14:
Label: unmelted particle
Length: 1.00 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 16065 pixels²

Crack 15:
Label: unmelted particle
Length: 0.60 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 8925 pixels²

Crack 16:
Label: unmelted particle
Length: 1.10 cm
Width: 1.00 cm
Depth: 0.10 cm

Volume: 0.11 cc
Area: 23205 pixels²

Crack 17:
Label: unmelted particle
Length: 1.20 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.12 cc
Area: 29070 pixels²

Crack 18:
Label: unmelted particle
Length: 0.50 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 8415 pixels²

Crack 19:
Label: unmelted particle
Length: 0.70 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 8160 pixels²

Crack 20:
Label: unmelted particle
Length: 1.00 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.11 cc
Area: 24735 pixels²

Crack 21:
Label: unmelted particle
Length: 2.50 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.33 cc
Area: 39525 pixels²

Crack 22:
Label: unmelted particle
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 10200 pixels²

Crack 23:
Label: porosity
Length: 0.40 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.01 cc
Area: 4080 pixels²

Crack 24:
Label: unmelted particle
Length: 0.40 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.01 cc
Area: 3825 pixels²

Crack 25:
Label: porosity
Length: 3.80 cm
Width: 1.80 cm
Depth: 0.10 cm
Volume: 0.68 cc
Area: 135915 pixels²

Crack 26:
Label: porosity
Length: 0.50 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7395 pixels²

Crack 27:
Label: unmelted particle
Length: 0.70 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 13005 pixels²

Crack 28:
Label: unmelted particle
Length: 0.80 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.09 cc
Area: 17595 pixels²

Crack 29:

Label: unmelted particle
Length: 1.10 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.11 cc
Area: 21675 pixels²

Crack 30:
Label: unmelted particle
Length: 0.70 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7905 pixels²

Crack 31:
Label: unmelted particle
Length: 1.00 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 16575 pixels²

Crack 32:
Label: unmelted particle
Length: 1.20 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.11 cc
Area: 23970 pixels²

Crack 33:
Label: unmelted particle
Length: 0.90 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11985 pixels²

Crack 34:
Label: unmelted particle
Length: 1.00 cm
Width: 1.20 cm
Depth: 0.10 cm
Volume: 0.12 cc
Area: 22440 pixels²

Crack 35:
Label: unmelted particle
Length: 1.10 cm

Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.11 cc
Area: 27285 pixels²

Crack 36:
Label: unmelted particle
Length: 1.20 cm
Width: 1.40 cm
Depth: 0.10 cm
Volume: 0.17 cc
Area: 35445 pixels²

Crack 37:
Label: unmelted particle
Length: 0.40 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.01 cc
Area: 4590 pixels²

Crack 38:
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7140 pixels²

Crack 39:
Label: unmelted particle
Length: 0.60 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 13515 pixels²

Crack 40:
Label: unmelted particle
Length: 0.80 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 7395 pixels²

Crack 41:
Label: unmelted particle
Length: 0.90 cm
Width: 0.60 cm
Depth: 0.10 cm

Volume: 0.05 cc
Area: 11730 pixels²

Crack 42:
Label: unmelted particle
Length: 0.60 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6375 pixels²

Crack 43:
Label: unmelted particle
Length: 0.90 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 14025 pixels²

Crack 44:
Label: unmelted particle
Length: 6.80 cm
Width: 1.70 cm
Depth: 0.10 cm
Volume: 1.16 cc
Area: 121125 pixels²

Crack 45:
Label: unmelted particle
Length: 2.80 cm
Width: 1.50 cm
Depth: 0.10 cm
Volume: 0.42 cc
Area: 42330 pixels²

Crack 46:
Label: unmelted particle
Length: 0.70 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6120 pixels²

Crack 47:
Label: unmelted particle
Length: 0.30 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.01 cc
Area: 3315 pixels²

```
Crack 48:  
Label: unmelted particle  
Length: 4.50 cm  
Width: 1.70 cm  
Depth: 0.10 cm  
Volume: 0.77 cc  
Area: 59160 pixels^2
```

```
Crack 49:  
Label: unmelted particle  
Length: 0.30 cm  
Width: 0.30 cm  
Depth: 0.10 cm  
Volume: 0.01 cc  
Area: 3060 pixels^2
```

```
Crack 50:  
Label: unmelted particle  
Length: 0.50 cm  
Width: 0.80 cm  
Depth: 0.10 cm  
Volume: 0.04 cc  
Area: 11730 pixels^2
```

```
Crack 51:  
Label: unmelted particle  
Length: 0.80 cm  
Width: 0.40 cm  
Depth: 0.10 cm  
Volume: 0.03 cc  
Area: 9435 pixels^2
```

```
Average area of microcracks: 0.00 cm^2  
Average area of unmelted particles: 222.12 cm^2  
Average area of porosities: 547.61 cm^2
```

```
[06/16 19:11:25 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...
```

```
Crack 1:  
Label: microcrack  
Length: 1.00 cm  
Width: 3.20 cm  
Depth: 0.10 cm  
Volume: 0.32 cc  
Area: 65790 pixels^2
```

```
Crack 2:
```

Label: porosity
Length: 0.40 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 4590 pixels²

Crack 3:
Label: unmelted particle
Length: 0.50 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 4845 pixels²

Crack 4:
Label: unmelted particle
Length: 0.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9945 pixels²

Crack 5:
Label: unmelted particle
Length: 1.00 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 13770 pixels²

Crack 6:
Label: unmelted particle
Length: 0.60 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 7905 pixels²

Crack 7:
Label: unmelted particle
Length: 0.80 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 16575 pixels²

Crack 8:
Label: unmelted particle
Length: 1.20 cm

```
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 17595 pixels^2

Crack 9:
Label: unmelted particle
Length: 0.50 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6375 pixels^2

Crack 10:
Label: unmelted particle
Length: 0.40 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5100 pixels^2

Crack 11:
Label: unmelted particle
Length: 1.40 cm
Width: 1.60 cm
Depth: 0.10 cm
Volume: 0.22 cc
Area: 39270 pixels^2

Crack 12:
Label: unmelted particle
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 10200 pixels^2

Crack 13:
Label: unmelted particle
Length: 0.50 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6120 pixels^2

Crack 14:
Label: porosity
Length: 1.40 cm
Width: 1.00 cm
Depth: 0.10 cm
```

Volume: 0.14 cc
Area: 29325 pixels²

Crack 15:
Label: unmelted particle
Length: 1.60 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.11 cc
Area: 21420 pixels²

Crack 16:
Label: unmelted particle
Length: 1.00 cm
Width: 1.20 cm
Depth: 0.10 cm
Volume: 0.12 cc
Area: 27795 pixels²

Crack 17:
Label: unmelted particle
Length: 0.90 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11985 pixels²

Crack 18:
Label: unmelted particle
Length: 1.50 cm
Width: 1.80 cm
Depth: 0.10 cm
Volume: 0.27 cc
Area: 55845 pixels²

Crack 19:
Label: microcrack
Length: 2.30 cm
Width: 4.00 cm
Depth: 0.10 cm
Volume: 0.92 cc
Area: 167535 pixels²

Crack 20:
Label: porosity
Length: 1.10 cm
Width: 1.50 cm
Depth: 0.10 cm
Volume: 0.17 cc
Area: 29070 pixels²

```
Crack 21:  
Label: unmelted particle  
Length: 0.60 cm  
Width: 0.40 cm  
Depth: 0.10 cm  
Volume: 0.02 cc  
Area: 6630 pixels^2  
  
Crack 22:  
Label: unmelted particle  
Length: 0.50 cm  
Width: 0.30 cm  
Depth: 0.10 cm  
Volume: 0.02 cc  
Area: 5610 pixels^2  
  
Crack 23:  
Label: unmelted particle  
Length: 0.80 cm  
Width: 0.50 cm  
Depth: 0.10 cm  
Volume: 0.04 cc  
Area: 10455 pixels^2  
  
Average area of microcracks: 1166.63 cm^2  
Average area of unmelted particles: 154.13 cm^2  
Average area of porosities: 209.95 cm^2  
  
[06/16 19:11:26 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...  
Crack 1:  
Label: porosity  
Length: 1.50 cm  
Width: 1.00 cm  
Depth: 0.10 cm  
Volume: 0.15 cc  
Area: 29835 pixels^2  
  
Crack 2:  
Label: unmelted particle  
Length: 1.60 cm  
Width: 1.00 cm  
Depth: 0.10 cm  
Volume: 0.16 cc  
Area: 34935 pixels^2  
  
Crack 3:
```

Label: unmelted particle
Length: 1.40 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.13 cc
Area: 27540 pixels²

Crack 4:
Label: porosity
Length: 4.30 cm
Width: 4.50 cm
Depth: 0.10 cm
Volume: 1.93 cc
Area: 129540 pixels²

Crack 5:
Label: unmelted particle
Length: 2.60 cm
Width: 1.80 cm
Depth: 0.10 cm
Volume: 0.47 cc
Area: 66300 pixels²

Crack 6:
Label: unmelted particle
Length: 1.20 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 21675 pixels²

Crack 7:
Label: unmelted particle
Length: 1.10 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 21930 pixels²

Crack 8:
Label: unmelted particle
Length: 1.00 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 11985 pixels²

Crack 9:
Label: unmelted particle
Length: 0.70 cm

```
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14790 pixels^2

Crack 10:
Label: unmelted particle
Length: 1.60 cm
Width: 1.70 cm
Depth: 0.10 cm
Volume: 0.27 cc
Area: 54060 pixels^2

Crack 11:
Label: unmelted particle
Length: 1.10 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 17595 pixels^2

Crack 12:
Label: unmelted particle
Length: 1.60 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.21 cc
Area: 39270 pixels^2

Crack 13:
Label: unmelted particle
Length: 0.90 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 15555 pixels^2

Crack 14:
Label: unmelted particle
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 10455 pixels^2

Crack 15:
Label: unmelted particle
Length: 0.60 cm
Width: 0.40 cm
Depth: 0.10 cm
```

```
Volume: 0.02 cc
Area: 7395 pixels^2

Crack 16:
Label: unmelted particle
Length: 0.50 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5100 pixels^2

Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 248.99 cm^2
Average area of porosities: 796.88 cm^2

[06/16 19:11:26 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/
mask_rcnn_R_50_FPN_3x/137849600/model_final_f10217.pkl ...
Crack 1:
Label: unmelted particle
Length: 2.00 cm
Width: 1.50 cm
Depth: 0.10 cm
Volume: 0.30 cc
Area: 76245 pixels^2

Crack 2:
Label: unmelted particle
Length: 1.60 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.16 cc
Area: 38760 pixels^2

Crack 3:
Label: unmelted particle
Length: 1.00 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 13515 pixels^2

Crack 4:
Label: unmelted particle
Length: 0.50 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7650 pixels^2
```

Crack 5:
Label: unmelted particle
Length: 0.80 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 16320 pixels²

Crack 6:
Label: unmelted particle
Length: 1.50 cm
Width: 1.40 cm
Depth: 0.10 cm
Volume: 0.21 cc
Area: 44880 pixels²

Crack 7:
Label: unmelted particle
Length: 1.60 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.16 cc
Area: 31620 pixels²

Crack 8:
Label: unmelted particle
Length: 1.40 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.14 cc
Area: 26520 pixels²

Crack 9:
Label: unmelted particle
Length: 1.40 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 25755 pixels²

Crack 10:
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 8160 pixels²

Crack 11:

Label: unmelted particle
Length: 0.60 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5100 pixels²

Crack 12:
Label: unmelted particle
Length: 0.40 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 4080 pixels²

Crack 13:
Label: unmelted particle
Length: 0.20 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.01 cc
Area: 2805 pixels²

Crack 14:
Label: unmelted particle
Length: 0.40 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 4845 pixels²

Crack 15:
Label: unmelted particle
Length: 1.80 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.20 cc
Area: 39525 pixels²

Crack 16:
Label: unmelted particle
Length: 0.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9945 pixels²

Crack 17:
Label: unmelted particle
Length: 0.60 cm

```
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 7650 pixels^2

Crack 18:
Label: unmelted particle
Length: 0.60 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 7140 pixels^2

Crack 19:
Label: unmelted particle
Length: 0.50 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 8670 pixels^2

Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 199.57 cm^2
Average area of porosities: 0.00 cm^2

[06/16 19:11:27 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...
Crack 1:
Label: porosity
Length: 3.10 cm
Width: 2.00 cm
Depth: 0.10 cm
Volume: 0.62 cc
Area: 131835 pixels^2

Crack 2:
Label: unmelted particle
Length: 1.50 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.20 cc
Area: 40290 pixels^2

Crack 3:
Label: unmelted particle
Length: 2.00 cm
Width: 1.50 cm
Depth: 0.10 cm
```

Volume: 0.30 cc
Area: 54060 pixels²

Crack 4:
Label: unmelted particle
Length: 1.60 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.16 cc
Area: 31365 pixels²

Crack 5:
Label: unmelted particle
Length: 1.50 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.15 cc
Area: 30600 pixels²

Crack 6:
Label: unmelted particle
Length: 1.00 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.09 cc
Area: 22185 pixels²

Crack 7:
Label: unmelted particle
Length: 2.40 cm
Width: 2.30 cm
Depth: 0.10 cm
Volume: 0.55 cc
Area: 107610 pixels²

Crack 8:
Label: unmelted particle
Length: 1.50 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.15 cc
Area: 28815 pixels²

Crack 9:
Label: unmelted particle
Length: 0.60 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 11220 pixels²

```
Crack 10:  
Label: unmelted particle  
Length: 0.70 cm  
Width: 0.40 cm  
Depth: 0.10 cm  
Volume: 0.03 cc  
Area: 8415 pixels^2
```

```
Crack 11:  
Label: unmelted particle  
Length: 1.60 cm  
Width: 1.10 cm  
Depth: 0.10 cm  
Volume: 0.18 cc  
Area: 35445 pixels^2
```

```
Crack 12:  
Label: unmelted particle  
Length: 1.00 cm  
Width: 0.60 cm  
Depth: 0.10 cm  
Volume: 0.06 cc  
Area: 16065 pixels^2
```

```
Crack 13:  
Label: unmelted particle  
Length: 0.50 cm  
Width: 0.40 cm  
Depth: 0.10 cm  
Volume: 0.02 cc  
Area: 6120 pixels^2
```

```
Average area of microcracks: 0.00 cm^2  
Average area of unmelted particles: 326.83 cm^2  
Average area of porosities: 1318.35 cm^2
```

```
[06/16 19:11:28 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...
```

```
Crack 1:  
Label: porosity  
Length: 4.20 cm  
Width: 2.80 cm  
Depth: 0.10 cm  
Volume: 1.18 cc  
Area: 244800 pixels^2
```

```
Crack 2:
```

Label: porosity
Length: 1.20 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.12 cc
Area: 25755 pixels²

Crack 3:
Label: unmelted particle
Length: 1.70 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.22 cc
Area: 50745 pixels²

Crack 4:
Label: unmelted particle
Length: 0.90 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14025 pixels²

Crack 5:
Label: unmelted particle
Length: 1.20 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 21675 pixels²

Crack 6:
Label: unmelted particle
Length: 0.80 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 10965 pixels²

Crack 7:
Label: unmelted particle
Length: 0.90 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 14790 pixels²

Crack 8:
Label: unmelted particle
Length: 0.80 cm

```
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 10200 pixels^2
```

```
Crack 9:
Label: unmelted particle
Length: 1.30 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.09 cc
Area: 23970 pixels^2
```

```
Crack 10:
Label: unmelted particle
Length: 2.50 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.33 cc
Area: 59160 pixels^2
```

```
Crack 11:
Label: unmelted particle
Length: 2.00 cm
Width: 1.70 cm
Depth: 0.10 cm
Volume: 0.34 cc
Area: 70380 pixels^2
```

```
Crack 12:
Label: unmelted particle
Length: 0.70 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 13515 pixels^2
```

```
Crack 13:
Label: unmelted particle
Length: 0.50 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6630 pixels^2
```

```
Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 269.14 cm^2
Average area of porosities: 1352.78 cm^2
```

```
[06/16 19:11:29 d2.checkpoint.detection_checkpoint]:
```

```
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/
mask_rcnn_R_50_FPN_3x/137849600/model_final_f10217.pkl ...
Crack 1:
Label: unmelted particle
Length: 3.70 cm
Width: 3.70 cm
Depth: 0.10 cm
Volume: 1.37 cc
Area: 250920 pixels^2

Crack 2:
Label: unmelted particle
Length: 0.90 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 12240 pixels^2

Crack 3:
Label: unmelted particle
Length: 2.20 cm
Width: 1.40 cm
Depth: 0.10 cm
Volume: 0.31 cc
Area: 51255 pixels^2

Crack 4:
Label: unmelted particle
Length: 2.10 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.27 cc
Area: 60945 pixels^2

Crack 5:
Label: unmelted particle
Length: 0.90 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 14535 pixels^2

Crack 6:
Label: unmelted particle
Length: 0.60 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 12495 pixels^2
```

Crack 7:
Label: unmelted particle
Length: 0.60 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 10200 pixels²

Crack 8:
Label: unmelted particle
Length: 0.50 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6120 pixels²

Crack 9:
Label: unmelted particle
Length: 0.40 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 4080 pixels²

Crack 10:
Label: unmelted particle
Length: 0.50 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 8670 pixels²

Crack 11:
Label: unmelted particle
Length: 0.70 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 13260 pixels²

Crack 12:
Label: unmelted particle
Length: 0.60 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6375 pixels²

Crack 13:

```
Label: unmelted particle
Length: 0.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9180 pixels^2

Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 354.06 cm^2
Average area of porosities: 0.00 cm^2

[06/16 19:11:30 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...
Crack 1:
Label: unmelted particle
Length: 2.90 cm
Width: 1.80 cm
Depth: 0.10 cm
Volume: 0.52 cc
Area: 102255 pixels^2

Crack 2:
Label: unmelted particle
Length: 0.90 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 13005 pixels^2

Crack 3:
Label: porosity
Length: 0.70 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 11220 pixels^2

Crack 4:
Label: unmelted particle
Length: 0.90 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 10965 pixels^2

Crack 5:
Label: unmelted particle
Length: 1.60 cm
```

Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.21 cc
Area: 45135 pixels²

Crack 6:
Label: unmelted particle
Length: 0.50 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7140 pixels²

Crack 7:
Label: unmelted particle
Length: 1.10 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.11 cc
Area: 26265 pixels²

Crack 8:
Label: porosity
Length: 0.70 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 6885 pixels²

Crack 9:
Label: unmelted particle
Length: 0.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9690 pixels²

Crack 10:
Label: unmelted particle
Length: 1.40 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 20145 pixels²

Crack 11:
Label: unmelted particle
Length: 1.00 cm
Width: 0.90 cm
Depth: 0.10 cm

Volume: 0.09 cc
Area: 17850 pixels²

Crack 12:
Label: unmelted particle
Length: 1.00 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 25500 pixels²

Crack 13:
Label: unmelted particle
Length: 1.10 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 17850 pixels²

Crack 14:
Label: porosity
Length: 0.80 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 13770 pixels²

Crack 15:
Label: unmelted particle
Length: 1.10 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 14790 pixels²

Crack 16:
Label: unmelted particle
Length: 2.10 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.23 cc
Area: 46665 pixels²

Crack 17:
Label: unmelted particle
Length: 0.80 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 14025 pixels²

```
Crack 18:  
Label: unmelted particle  
Length: 0.60 cm  
Width: 0.70 cm  
Depth: 0.10 cm  
Volume: 0.04 cc  
Area: 11985 pixels^2  
  
Crack 19:  
Label: unmelted particle  
Length: 0.60 cm  
Width: 0.40 cm  
Depth: 0.10 cm  
Volume: 0.02 cc  
Area: 7140 pixels^2  
  
Crack 20:  
Label: unmelted particle  
Length: 0.60 cm  
Width: 0.50 cm  
Depth: 0.10 cm  
Volume: 0.03 cc  
Area: 8415 pixels^2  
  
Average area of microcracks: 0.00 cm^2  
Average area of unmelted particles: 234.60 cm^2  
Average area of porosities: 106.25 cm^2  
  
[06/16 19:11:31 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...  
Crack 1:  
Label: porosity  
Length: 4.40 cm  
Width: 3.30 cm  
Depth: 0.10 cm  
Volume: 1.45 cc  
Area: 302685 pixels^2  
  
Crack 2:  
Label: unmelted particle  
Length: 1.20 cm  
Width: 0.90 cm  
Depth: 0.10 cm  
Volume: 0.11 cc  
Area: 22440 pixels^2  
  
Crack 3:
```

Label: porosity
Length: 4.20 cm
Width: 1.40 cm
Depth: 0.10 cm
Volume: 0.59 cc
Area: 84405 pixels²

Crack 4:
Label: unmelted particle
Length: 0.40 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 7140 pixels²

Crack 5:
Label: unmelted particle
Length: 0.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9945 pixels²

Crack 6:
Label: unmelted particle
Length: 1.10 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 19125 pixels²

Crack 7:
Label: unmelted particle
Length: 0.90 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11220 pixels²

Crack 8:
Label: unmelted particle
Length: 0.90 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 11475 pixels²

Average area of microcracks: 0.00 cm²
Average area of unmelted particles: 135.58 cm²
Average area of porosities: 1935.45 cm²

```
[06/16 19:11:32 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...  
Crack 1:  
Label: unmelted particle  
Length: 3.20 cm  
Width: 2.00 cm  
Depth: 0.10 cm  
Volume: 0.64 cc  
Area: 117300 pixels^2  
  
Crack 2:  
Label: unmelted particle  
Length: 1.30 cm  
Width: 1.00 cm  
Depth: 0.10 cm  
Volume: 0.13 cc  
Area: 30855 pixels^2  
  
Crack 3:  
Label: unmelted particle  
Length: 1.20 cm  
Width: 0.90 cm  
Depth: 0.10 cm  
Volume: 0.11 cc  
Area: 24735 pixels^2  
  
Crack 4:  
Label: unmelted particle  
Length: 1.70 cm  
Width: 0.90 cm  
Depth: 0.10 cm  
Volume: 0.15 cc  
Area: 34680 pixels^2  
  
Crack 5:  
Label: unmelted particle  
Length: 0.80 cm  
Width: 0.60 cm  
Depth: 0.10 cm  
Volume: 0.05 cc  
Area: 11985 pixels^2  
  
Crack 6:  
Label: porosity  
Length: 3.80 cm  
Width: 3.10 cm  
Depth: 0.10 cm
```

Volume: 1.18 cc
Area: 138975 pixels²

Crack 7:
Label: unmelted particle
Length: 1.10 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.09 cc
Area: 20400 pixels²

Crack 8:
Label: unmelted particle
Length: 0.70 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9945 pixels²

Crack 9:
Label: unmelted particle
Length: 0.80 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 11475 pixels²

Crack 10:
Label: unmelted particle
Length: 2.90 cm
Width: 1.50 cm
Depth: 0.10 cm
Volume: 0.44 cc
Area: 92820 pixels²

Crack 11:
Label: unmelted particle
Length: 1.60 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.14 cc
Area: 36720 pixels²

Crack 12:
Label: unmelted particle
Length: 0.70 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7395 pixels²

Crack 13:
Label: unmelted particle
Length: 0.40 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5865 pixels²

Crack 14:
Label: unmelted particle
Length: 0.80 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 7140 pixels²

Crack 15:
Label: unmelted particle
Length: 1.40 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.13 cc
Area: 29070 pixels²

Crack 16:
Label: unmelted particle
Length: 1.50 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.14 cc
Area: 32385 pixels²

Crack 17:
Label: unmelted particle
Length: 0.80 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 19125 pixels²

Crack 18:
Label: unmelted particle
Length: 0.80 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 11985 pixels²

Crack 19:

Label: unmelted particle
Length: 0.50 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7905 pixels²

Crack 20:
Label: unmelted particle
Length: 0.60 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9945 pixels²

Crack 21:
Label: unmelted particle
Length: 1.20 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 18360 pixels²

Crack 22:
Label: unmelted particle
Length: 0.50 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7140 pixels²

Crack 23:
Label: unmelted particle
Length: 1.30 cm
Width: 1.40 cm
Depth: 0.10 cm
Volume: 0.18 cc
Area: 22950 pixels²

Crack 24:
Label: unmelted particle
Length: 1.70 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.15 cc
Area: 33660 pixels²

Average area of microcracks: 0.00 cm²
Average area of unmelted particles: 262.54 cm²
Average area of porosities: 1389.75 cm²

```
[06/16 19:11:33 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...  
Crack 1:  
Label: unmelted particle  
Length: 1.70 cm  
Width: 1.30 cm  
Depth: 0.10 cm  
Volume: 0.22 cc  
Area: 43860 pixels^2  
  
Crack 2:  
Label: unmelted particle  
Length: 1.40 cm  
Width: 1.00 cm  
Depth: 0.10 cm  
Volume: 0.14 cc  
Area: 36210 pixels^2  
  
Crack 3:  
Label: porosity  
Length: 1.20 cm  
Width: 0.80 cm  
Depth: 0.10 cm  
Volume: 0.10 cc  
Area: 21420 pixels^2  
  
Crack 4:  
Label: unmelted particle  
Length: 0.60 cm  
Width: 0.60 cm  
Depth: 0.10 cm  
Volume: 0.04 cc  
Area: 10965 pixels^2  
  
Crack 5:  
Label: unmelted particle  
Length: 1.20 cm  
Width: 0.70 cm  
Depth: 0.10 cm  
Volume: 0.08 cc  
Area: 21165 pixels^2  
  
Crack 6:  
Label: unmelted particle  
Length: 0.70 cm  
Width: 0.60 cm  
Depth: 0.10 cm
```

Volume: 0.04 cc
Area: 10965 pixels²

Crack 7:
Label: unmelted particle
Length: 1.70 cm
Width: 1.20 cm
Depth: 0.10 cm
Volume: 0.20 cc
Area: 39525 pixels²

Crack 8:
Label: unmelted particle
Length: 1.80 cm
Width: 1.50 cm
Depth: 0.10 cm
Volume: 0.27 cc
Area: 59670 pixels²

Crack 9:
Label: unmelted particle
Length: 0.60 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 12750 pixels²

Crack 10:
Label: unmelted particle
Length: 0.70 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9945 pixels²

Crack 11:
Label: unmelted particle
Length: 0.90 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 17595 pixels²

Crack 12:
Label: unmelted particle
Length: 0.70 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 11220 pixels²

Crack 13:
Label: unmelted particle
Length: 1.00 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 19635 pixels²

Crack 14:
Label: unmelted particle
Length: 0.60 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 8925 pixels²

Crack 15:
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7650 pixels²

Crack 16:
Label: unmelted particle
Length: 0.60 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 11220 pixels²

Crack 17:
Label: porosity
Length: 0.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 7905 pixels²

Crack 18:
Label: unmelted particle
Length: 0.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 9945 pixels²

Crack 19:

Label: unmelted particle
Length: 0.70 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 8925 pixels²

Average area of microcracks: 0.00 cm²
Average area of unmelted particles: 200.10 cm²
Average area of porosities: 146.63 cm²

[06/16 19:11:34 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask_rcnn_R_50_FPN_3x/137849600/model_final_f10217.pkl ...

Crack 1:

Label: porosity
Length: 4.80 cm
Width: 4.00 cm
Depth: 0.10 cm
Volume: 1.92 cc
Area: 343230 pixels²

Crack 2:

Label: unmelted particle
Length: 2.50 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.33 cc
Area: 67065 pixels²

Crack 3:

Label: unmelted particle
Length: 2.40 cm
Width: 2.30 cm
Depth: 0.10 cm
Volume: 0.55 cc
Area: 112965 pixels²

Crack 4:

Label: unmelted particle
Length: 0.80 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14280 pixels²

Crack 5:

Label: unmelted particle
Length: 0.60 cm

Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5865 pixels²

Crack 6:
Label: unmelted particle
Length: 0.90 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 9435 pixels²

Crack 7:
Label: unmelted particle
Length: 0.30 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.01 cc
Area: 4080 pixels²

Crack 8:
Label: unmelted particle
Length: 3.70 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.41 cc
Area: 95880 pixels²

Crack 9:
Label: unmelted particle
Length: 0.70 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 9435 pixels²

Crack 10:
Label: unmelted particle
Length: 0.50 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 6885 pixels²

Average area of microcracks: 0.00 cm²
Average area of unmelted particles: 362.10 cm²
Average area of porosities: 3432.30 cm²

[06/16 19:11:35 d2.checkpoint.detection_checkpoint]:

```
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/
mask_rcnn_R_50_FPN_3x/137849600/model_final_f10217.pkl ...
Crack 1:
Label: porosity
Length: 9.00 cm
Width: 2.50 cm
Depth: 0.10 cm
Volume: 2.25 cc
Area: 420495 pixels^2

Crack 2:
Label: porosity
Length: 1.10 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 17595 pixels^2

Crack 3:
Label: unmelted particle
Length: 0.80 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 11220 pixels^2

Crack 4:
Label: unmelted particle
Length: 0.90 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14790 pixels^2

Crack 5:
Label: unmelted particle
Length: 1.40 cm
Width: 1.50 cm
Depth: 0.10 cm
Volume: 0.21 cc
Area: 43605 pixels^2

Crack 6:
Label: unmelted particle
Length: 0.70 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 13515 pixels^2
```

Crack 7:
Label: unmelted particle
Length: 1.00 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 16575 pixels²

Crack 8:
Label: unmelted particle
Length: 4.40 cm
Width: 2.40 cm
Depth: 0.10 cm
Volume: 1.06 cc
Area: 170085 pixels²

Crack 9:
Label: unmelted particle
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 15045 pixels²

Crack 10:
Label: unmelted particle
Length: 3.90 cm
Width: 2.30 cm
Depth: 0.10 cm
Volume: 0.90 cc
Area: 161925 pixels²

Crack 11:
Label: unmelted particle
Length: 1.20 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.12 cc
Area: 28560 pixels²

Crack 12:
Label: unmelted particle
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 10965 pixels²

Crack 13:

```
Label: unmelted particle
Length: 0.40 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5355 pixels^2
```

```
Crack 14:
Label: unmelted particle
Length: 0.60 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 8670 pixels^2
```

```
Crack 15:
Label: porosity
Length: 8.90 cm
Width: 4.10 cm
Depth: 0.10 cm
Volume: 3.65 cc
Area: 447525 pixels^2
```

```
Crack 16:
Label: unmelted particle
Length: 0.50 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 4590 pixels^2
```

```
Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 388.38 cm^2
Average area of porosities: 2952.05 cm^2
```

```
[06/16 19:11:36 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/
mask_rcnn_R_50_FPN_3x/137849600/model_final_f10217.pkl ...
Crack 1:
Label: porosity
Length: 3.70 cm
Width: 3.00 cm
Depth: 0.10 cm
Volume: 1.11 cc
Area: 215475 pixels^2
```

```
Crack 2:
Label: unmelted particle
Length: 2.70 cm
```

Width: 2.50 cm
Depth: 0.10 cm
Volume: 0.68 cc
Area: 13310 pixels²

Crack 3:
Label: porosity
Length: 2.70 cm
Width: 1.70 cm
Depth: 0.10 cm
Volume: 0.46 cc
Area: 82875 pixels²

Crack 4:
Label: unmelted particle
Length: 2.00 cm
Width: 2.10 cm
Depth: 0.10 cm
Volume: 0.42 cc
Area: 60435 pixels²

Crack 5:
Label: unmelted particle
Length: 1.10 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.10 cc
Area: 18615 pixels²

Crack 6:
Label: unmelted particle
Length: 1.20 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 17085 pixels²

Crack 7:
Label: unmelted particle
Length: 1.50 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.17 cc
Area: 24480 pixels²

Crack 8:
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm

Volume: 0.03 cc
Area: 8415 pixels²

Crack 9:
Label: unmelted particle
Length: 0.90 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 17850 pixels²

Crack 10:
Label: unmelted particle
Length: 1.60 cm
Width: 0.80 cm
Depth: 0.10 cm
Volume: 0.13 cc
Area: 28050 pixels²

Crack 11:
Label: unmelted particle
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11985 pixels²

Crack 12:
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7140 pixels²

Crack 13:
Label: porosity
Length: 0.40 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5100 pixels²

Crack 14:
Label: unmelted particle
Length: 1.20 cm
Width: 1.20 cm
Depth: 0.10 cm
Volume: 0.14 cc
Area: 30855 pixels²

```
Crack 15:  
Label: unmelted particle  
Length: 0.80 cm  
Width: 0.80 cm  
Depth: 0.10 cm  
Volume: 0.06 cc  
Area: 15555 pixels^2
```

```
Crack 16:  
Label: unmelted particle  
Length: 0.50 cm  
Width: 0.60 cm  
Depth: 0.10 cm  
Volume: 0.03 cc  
Area: 7905 pixels^2
```

```
Crack 17:  
Label: unmelted particle  
Length: 0.70 cm  
Width: 0.50 cm  
Depth: 0.10 cm  
Volume: 0.04 cc  
Area: 9435 pixels^2
```

```
Crack 18:  
Label: unmelted particle  
Length: 0.70 cm  
Width: 0.40 cm  
Depth: 0.10 cm  
Volume: 0.03 cc  
Area: 9180 pixels^2
```

```
Average area of microcracks: 0.00 cm^2  
Average area of unmelted particles: 266.73 cm^2  
Average area of porosities: 1011.50 cm^2
```

```
[06/16 19:11:37 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...
```

```
Crack 1:  
Label: unmelted particle  
Length: 1.30 cm  
Width: 1.20 cm  
Depth: 0.10 cm  
Volume: 0.16 cc  
Area: 38505 pixels^2
```

```
Crack 2:
```

Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 8415 pixels²

Crack 3:
Label: unmelted particle
Length: 0.70 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 11220 pixels²

Crack 4:
Label: unmelted particle
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 13515 pixels²

Crack 5:
Label: unmelted particle
Length: 1.80 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.13 cc
Area: 27030 pixels²

Crack 6:
Label: unmelted particle
Length: 0.80 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14025 pixels²

Crack 7:
Label: unmelted particle
Length: 1.90 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.25 cc
Area: 41055 pixels²

Crack 8:
Label: unmelted particle
Length: 0.80 cm

Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 8160 pixels²

Crack 9:
Label: unmelted particle
Length: 1.20 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.07 cc
Area: 15555 pixels²

Crack 10:
Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 7905 pixels²

Crack 11:
Label: unmelted particle
Length: 0.50 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 4590 pixels²

Crack 12:
Label: unmelted particle
Length: 0.80 cm
Width: 0.40 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 8670 pixels²

Crack 13:
Label: unmelted particle
Length: 0.70 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.04 cc
Area: 10455 pixels²

Crack 14:
Label: unmelted particle
Length: 0.50 cm
Width: 0.40 cm
Depth: 0.10 cm

```
Volume: 0.02 cc
Area: 6630 pixels^2
```

```
Crack 15:
Label: unmelted particle
Length: 0.30 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.01 cc
Area: 2550 pixels^2
```

```
Crack 16:
Label: unmelted particle
Length: 0.50 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 3825 pixels^2
```

```
Average area of microcracks: 0.00 cm^2
Average area of unmelted particles: 138.82 cm^2
Average area of porosities: 0.00 cm^2
```

```
[06/16 19:11:38 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/
mask_rcnn_R_50_FPN_3x/137849600/model_final_f10217.pkl ...
```

```
Crack 1:
Label: porosity
Length: 2.80 cm
Width: 2.00 cm
Depth: 0.10 cm
Volume: 0.56 cc
Area: 105570 pixels^2
```

```
Crack 2:
Label: unmelted particle
Length: 1.40 cm
Width: 1.30 cm
Depth: 0.10 cm
Volume: 0.18 cc
Area: 37995 pixels^2
```

```
Crack 3:
Label: unmelted particle
Length: 1.70 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.19 cc
Area: 42330 pixels^2
```

```
Crack 4:  
Label: unmelted particle  
Length: 0.90 cm  
Width: 0.80 cm  
Depth: 0.10 cm  
Volume: 0.07 cc  
Area: 16575 pixels^2
```

```
Crack 5:  
Label: porosity  
Length: 0.30 cm  
Width: 0.30 cm  
Depth: 0.10 cm  
Volume: 0.01 cc  
Area: 3315 pixels^2
```

```
Crack 6:  
Label: unmelted particle  
Length: 0.60 cm  
Width: 0.60 cm  
Depth: 0.10 cm  
Volume: 0.04 cc  
Area: 9180 pixels^2
```

```
Crack 7:  
Label: unmelted particle  
Length: 0.60 cm  
Width: 0.60 cm  
Depth: 0.10 cm  
Volume: 0.04 cc  
Area: 10455 pixels^2
```

```
Crack 8:  
Label: unmelted particle  
Length: 0.60 cm  
Width: 0.30 cm  
Depth: 0.10 cm  
Volume: 0.02 cc  
Area: 5355 pixels^2
```

```
Average area of microcracks: 0.00 cm^2  
Average area of unmelted particles: 203.15 cm^2  
Average area of porosities: 544.43 cm^2
```

```
import cv2  
import numpy as np  
import json  
from detectron2.config import get_cfg
```

```

from detectron2.engine import DefaultPredictor, DefaultTrainer
from detectron2.utils.visualizer import Visualizer
from detectron2.data import MetadataCatalog
from google.colab.patches import cv2_imshow
from detectron2 import model_zoo
import os

# Conversion factor: 1 pixel = 0.1 cm (hypothetical value)
conversion_factor = 0.1 # Adjust this value based on your specific conversion factor

# Load JSON annotations
annotations_path =
'/content/drive/MyDrive/Mahabub/train/rsz_slm_square_finalx15k_0014.json'
with open(annotations_path) as f:
    annotations_data = json.load(f)

# Extract annotations
annotations = annotations_data['shapes']

# Load corresponding image
image_path =
'/content/drive/MyDrive/Mahabub/train/rsz_slm_square_finalx15k_0014.jpg'
image = cv2.imread(image_path)

# Create a black mask image for the background
mask = np.zeros_like(image[:, :, 0], dtype=np.uint8)

# Initialize variables for area calculations
cracks = []
unmelted_particle_area = 0
microcrack_area = 0
porosity_area = 0

# Iterate through annotations and calculate size, shape, volume, and area for each crack
for annotation in annotations:
    # Extract label and points
    label = annotation['label']
    points = annotation['points']

    # Extract bounding box coordinates
    xmin = int(min(points, key=lambda x: x[0])[0])
    ymin = int(min(points, key=lambda x: x[1])[1])
    xmax = int(max(points, key=lambda x: x[0])[0])
    ymax = int(max(points, key=lambda x: x[1])[1])

    # Extract segmentation mask

```

```

object_mask = np.zeros_like(image[:, :, 0], dtype=np.uint8)
cv2.fillPoly(object_mask, np.array([points]), dtype=np.int32), 255)

# Update the main mask based on the label
if label == 'porosity':
    mask = cv2.bitwise_or(mask, object_mask)
    color = (0, 255, 0) # Green for porosity
    porosity_area += np.sum(object_mask)
elif label == 'microcrack':
    mask = cv2.bitwise_or(mask, object_mask)
    color = (0, 0, 255) # Red for microcrack
    microcrack_area += np.sum(object_mask)
elif label == 'unmelted particle':
    mask = cv2.bitwise_or(mask, object_mask)
    color = (255, 0, 0) # Blue for unmelted particle
    unmelted_particle_area += np.sum(object_mask)
else:
    color = (255, 255, 255) # White for other objects

# Draw bounding box and label on the image
cv2.rectangle(image, (xmin, ymin), (xmax, ymax), color, 2)
cv2.putText(image, label, (xmin, ymin - 10),
cv2.FONT_HERSHEY_SIMPLEX, 0.9, color, 2)

# Calculate the size of the crack (length, width, depth) in centimeters
length_cm = (xmax - xmin) * conversion_factor
width_cm = (ymax - ymin) * conversion_factor
depth_cm = 0.1 # Assuming the depth is 0.1 cm (hypothetical value)

# Calculate the volume of the crack in cubic centimeters (cc)
volume_cc = length_cm * width_cm * depth_cm

# Create a dictionary to store crack information
crack = {
    'label': label,
    'length_cm': length_cm,
    'width_cm': width_cm,
    'depth_cm': depth_cm,
    'volume_cc': volume_cc,
    'area': np.sum(object_mask)
}

# Add the crack to the list of cracks
cracks.append(crack)

# Apply the mask to the original image
masked_image = cv2.bitwise_and(image, image, mask=mask)

```

```

# Create a Detectron2 configuration
cfg = get_cfg()
cfg.merge_from_file(model_zoo.get_config_file("COCO-
InstanceSegmentation/mask_rcnn_R_50_FPN_3x.yaml"))
cfg.MODEL.ROI_HEADS.SCORE_THRESH_TEST = 0.5
cfg.MODEL.WEIGHTS = model_zoo.get_checkpoint_url("COCO-
InstanceSegmentation/mask_rcnn_R_50_FPN_3x.yaml")

# Train the model
cfg.DATASETS.TRAIN = ("p_train",)
cfg.DATASETS.TEST = ()
cfg.DATALOADER.NUM_WORKERS = 2
cfg.SOLVER.IMS_PER_BATCH = 2
cfg.SOLVER.BASE_LR = 0.00025
cfg.SOLVER.MAX_ITER = 100
cfg.SOLVER.STEPS = []           # do not decay learning rate
cfg.MODEL.ROI_HEADS.NUM_CLASSES = 3

os.makedirs(cfg.OUTPUT_DIR, exist_ok=True)
trainer = DefaultTrainer(cfg)
trainer.resume_or_load(resume=False)
trainer.train()

# Continue with the rest of the code...

# Run the Mask R-CNN model on the image
predictor = DefaultPredictor(cfg)
outputs = predictor(image)

# Visualize the predictions
v = Visualizer(image[:, :, ::-1],
MetadataCatalog.get(cfg.DATASETS.TRAIN[0]), scale=1.2)
out = v.draw_instance_predictions(outputs["instances"].to("cpu"))

# Get the annotated image
annotated_image = out.get_image()[:, :, ::-1]

# Calculate average areas
num_unmelted_particles = sum(1 for annotation in annotations if
annotation['label'] == 'unmelted particle')
num_microcracks = sum(1 for annotation in annotations if
annotation['label'] == 'microcrack')
num_porosities = sum(1 for annotation in annotations if
annotation['label'] == 'porosity')

average_unmelted_particle_area = (unmelted_particle_area /
num_unmelted_particles) * (conversion_factor ** 2) if
num_unmelted_particles > 0 else 0
average_microcrack_area = (microcrack_area / num_microcracks) *
(conversion_factor ** 2) if num_microcracks > 0 else 0

```

```

average_porosity_area = (porosity_area / num_porosities) *
(conversion_factor ** 2) if num_porosities > 0 else 0

# Print crack information
for i, crack in enumerate(cracks):
    print(f"Crack {i+1}:")
    print(f"Label: {crack['label']}")
    print(f"Length: {crack['length_cm']:.2f} cm")
    print(f"Width: {crack['width_cm']:.2f} cm")
    print(f"Depth: {crack['depth_cm']:.2f} cm")
    print(f"Volume: {crack['volume_cc']:.2f} cc")
    print(f"Area: {crack['area']} pixels^2\n")

# Print average area calculations
print(f"Average area of microcracks: {average_microcrack_area:.2f} cm^2")
print(f"Average area of porosity: {average_porosity_area:.2f} cm^2")
print(f"Average area of unmelted particles: {average_unmelted_particle_area:.2f} cm^2")

[06/16 19:51:03 d2.engine.defaults]: Model:
GeneralizedRCNN(
    (backbone): FPN(
        (fpn_lateral2): Conv2d(256, 256, kernel_size=(1, 1), stride=(1, 1))
        (fpn_output2): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1))
        (fpn_lateral3): Conv2d(512, 256, kernel_size=(1, 1), stride=(1, 1))
        (fpn_output3): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1))
        (fpn_lateral4): Conv2d(1024, 256, kernel_size=(1, 1), stride=(1, 1))
        (fpn_output4): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1))
        (fpn_lateral5): Conv2d(2048, 256, kernel_size=(1, 1), stride=(1, 1))
        (fpn_output5): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1))
        (top_block): LastLevelMaxPool()
        (bottom_up): ResNet(
            (stem): BasicStem(
                (conv1): Conv2d(
                    3, 64, kernel_size=(7, 7), stride=(2, 2), padding=(3, 3),
bias=False
                    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
                )
            )
        (res2): Sequential(
            (0): BottleneckBlock(

```

```
(shortcut): Conv2d(  
    64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
)  
(conv1): Conv2d(  
    64, 64, kernel_size=(1, 1), stride=(1, 1), bias=False  
    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
)  
(conv2): Conv2d(  
    64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),  
bias=False  
    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
)  
(conv3): Conv2d(  
    64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
)  
)  
(1): BottleneckBlock(  
    (conv1): Conv2d(  
        256, 64, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
)  
    (conv2): Conv2d(  
        64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),  
bias=False  
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
)  
    (conv3): Conv2d(  
        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
)  
)  
(2): BottleneckBlock(  
    (conv1): Conv2d(  
        256, 64, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
)  
    (conv2): Conv2d(  
        64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),  
bias=False  
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)  
)  
    (conv3): Conv2d(  
        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
)  
)  
)
```

```
(res3): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            256, 512, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
        (conv1): Conv2d(
            256, 128, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
        (conv2): Conv2d(
            128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
        (conv3): Conv2d(
            128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
    )
    (1): BottleneckBlock(
        (conv1): Conv2d(
            512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
        (conv2): Conv2d(
            128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
        (conv3): Conv2d(
            128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
    )
    (2): BottleneckBlock(
        (conv1): Conv2d(
            512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
        (conv2): Conv2d(
            128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
        (conv3): Conv2d(
            128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
    )
)
```

```
)  
    (3): BottleneckBlock(  
        (conv1): Conv2d(  
            512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False  
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)  
        )  
        (conv2): Conv2d(  
            128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,  
1), bias=False  
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)  
        )  
        (conv3): Conv2d(  
            128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False  
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)  
        )  
    )  
)  
    (res4): Sequential(  
        (0): BottleneckBlock(  
            (shortcut): Conv2d(  
                512, 1024, kernel_size=(1, 1), stride=(2, 2), bias=False  
                (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)  
            )  
            (conv1): Conv2d(  
                512, 256, kernel_size=(1, 1), stride=(2, 2), bias=False  
                (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
            )  
            (conv2): Conv2d(  
                256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,  
1), bias=False  
                (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
            )  
            (conv3): Conv2d(  
                256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False  
                (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)  
            )  
        )  
        (1): BottleneckBlock(  
            (conv1): Conv2d(  
                1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False  
                (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
            )  
            (conv2): Conv2d(  
                256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,  
1), bias=False  
                (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)  
            )  
            (conv3): Conv2d(  
                256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
```

```
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(3): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(4): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(5): BottleneckBlock(
```

```
(conv1): Conv2d(
    1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
)
(conv2): Conv2d(
    256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
    (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
)
(conv3): Conv2d(
    256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
)
)
)
(res5): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            1024, 2048, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
        )
        (conv1): Conv2d(
            1024, 512, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
        (conv2): Conv2d(
            512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
        (conv3): Conv2d(
            512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
        )
    )
    (1): BottleneckBlock(
        (conv1): Conv2d(
            2048, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
        (conv2): Conv2d(
            512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
        (conv3): Conv2d(
            512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
        )
    )
)
```



```

        (fc1): Linear(in_features=12544, out_features=1024, bias=True)
        (fc_relu1): ReLU()
        (fc2): Linear(in_features=1024, out_features=1024, bias=True)
        (fc_relu2): ReLU()
    )
    (box_predictor): FastRCNNOutputLayers(
        (cls_score): Linear(in_features=1024, out_features=4, bias=True)
        (bbox_pred): Linear(in_features=1024, out_features=12,
bias=True)
    )
    (mask_pooler): ROIAligner(
        (level_poolers): ModuleList(
            (0): ROIAlign(output_size=(14, 14), spatial_scale=0.25,
sampling_ratio=0, aligned=True)
            (1): ROIAlign(output_size=(14, 14), spatial_scale=0.125,
sampling_ratio=0, aligned=True)
            (2): ROIAlign(output_size=(14, 14), spatial_scale=0.0625,
sampling_ratio=0, aligned=True)
            (3): ROIAlign(output_size=(14, 14), spatial_scale=0.03125,
sampling_ratio=0, aligned=True)
        )
    )
    (mask_head): MaskRCNNConvUpsampleHead(
        (mask_fcn1): Conv2d(
            256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1)
            (activation): ReLU()
        )
        (mask_fcn2): Conv2d(
            256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1)
            (activation): ReLU()
        )
        (mask_fcn3): Conv2d(
            256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1)
            (activation): ReLU()
        )
        (mask_fcn4): Conv2d(
            256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1)
            (activation): ReLU()
        )
        (deconv): ConvTranspose2d(256, 256, kernel_size=(2, 2),
stride=(2, 2))
        (deconv_relu): ReLU()
        (predictor): Conv2d(256, 3, kernel_size=(1, 1), stride=(1, 1))
    )
)
)
[06/16 19:51:03 d2.data.build]: Removed 0 images with no usable
annotations. 42 images left.
[06/16 19:51:03 d2.data.dataset_mapper]: [DatasetMapper] Augmentations

```

```
used in training: [ResizeShortestEdge(short_edge_length=(640, 672, 704, 736, 768, 800), max_size=1333, sample_style='choice'), RandomFlip()]  
[06/16 19:51:03 d2.data.build]: Using training sampler TrainingSampler  
[06/16 19:51:03 d2.data.common]: Serializing the dataset using: <class 'detectron2.data.common._TorchSerializedList'>  
[06/16 19:51:03 d2.data.common]: Serializing 42 elements to byte tensors and concatenating them all ...  
[06/16 19:51:03 d2.data.common]: Serialized dataset takes 0.16 MiB  
[06/16 19:51:03 d2.checkpoint.detection_checkpoint]:  
[DetectionCheckpointer] Loading from  
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...  
  
WARNING:fvcore.common.checkpoint:Skip loading parameter  
'roi_heads.box_predictor.cls_score.weight' to the model due to incompatible shapes: (81, 1024) in the checkpoint but (4, 1024) in the model! You might want to double check if this is expected.  
WARNING:fvcore.common.checkpoint:Skip loading parameter  
'roi_heads.box_predictor.cls_score.bias' to the model due to incompatible shapes: (81,) in the checkpoint but (4,) in the model! You might want to double check if this is expected.  
WARNING:fvcore.common.checkpoint:Skip loading parameter  
'roi_heads.box_predictor.bbox_pred.weight' to the model due to incompatible shapes: (320, 1024) in the checkpoint but (12, 1024) in the model! You might want to double check if this is expected.  
WARNING:fvcore.common.checkpoint:Skip loading parameter  
'roi_heads.box_predictor.bbox_pred.bias' to the model due to incompatible shapes: (320,) in the checkpoint but (12,) in the model! You might want to double check if this is expected.  
WARNING:fvcore.common.checkpoint:Skip loading parameter  
'roi_heads.mask_head.predictor.weight' to the model due to incompatible shapes: (80, 256, 1, 1) in the checkpoint but (3, 256, 1, 1) in the model! You might want to double check if this is expected.  
WARNING:fvcore.common.checkpoint:Skip loading parameter  
'roi_heads.mask_head.predictor.bias' to the model due to incompatible shapes: (80,) in the checkpoint but (3,) in the model! You might want to double check if this is expected.  
WARNING:fvcore.common.checkpoint:Some model parameters or buffers are not found in the checkpoint:  
roi_heads.box_predictor.bbox_pred.{bias, weight}  
roi_heads.box_predictor.cls_score.{bias, weight}  
roi_heads.mask_head.predictor.{bias, weight}  
  
[06/16 19:51:03 d2.engine.train_loop]: Starting training from iteration 0  
[06/16 19:51:06 d2.utils.events]: eta: 0:00:10 iter: 19 total_loss: 3.415 loss_cls: 1.495 loss_box_reg: 0.6997 loss_mask: 0.6921 loss_rpn_cls: 0.4272 loss_rpn_loc: 0.2339 time: 0.1302 last_time: 0.1295 data_time: 0.0124 last_data_time: 0.0052 lr: 4.7703e-05
```

```
max_mem: 3911M
[06/16 19:51:08 d2.utils.events]: eta: 0:00:07 iter: 39 total_loss: 2.186 loss_cls: 0.7188 loss_box_reg: 0.5785 loss_mask: 0.652 loss_rpn_cls: 0.05312 loss_rpn_loc: 0.2155 time: 0.1289 last_time: 0.1309 data_time: 0.0047 last_data_time: 0.0044 lr: 9.7653e-05 max_mem: 3911M
[06/16 19:51:11 d2.utils.events]: eta: 0:00:05 iter: 59 total_loss: 1.779 loss_cls: 0.419 loss_box_reg: 0.5263 loss_mask: 0.5814 loss_rpn_cls: 0.03642 loss_rpn_loc: 0.2014 time: 0.1282 last_time: 0.1334 data_time: 0.0047 last_data_time: 0.0052 lr: 0.0001476 max_mem: 3911M
[06/16 19:51:13 d2.utils.events]: eta: 0:00:02 iter: 79 total_loss: 1.613 loss_cls: 0.3167 loss_box_reg: 0.5645 loss_mask: 0.493 loss_rpn_cls: 0.03272 loss_rpn_loc: 0.2083 time: 0.1284 last_time: 0.1304 data_time: 0.0047 last_data_time: 0.0047 lr: 0.00019755 max_mem: 3911M
[06/16 19:51:17 d2.utils.events]: eta: 0:00:00 iter: 99 total_loss: 1.495 loss_cls: 0.2427 loss_box_reg: 0.5749 loss_mask: 0.4522 loss_rpn_cls: 0.03153 loss_rpn_loc: 0.2049 time: 0.1322 last_time: 0.1183 data_time: 0.0047 last_data_time: 0.0046 lr: 0.0002475 max_mem: 3911M
[06/16 19:51:18 d2.engine.hooks]: Overall training speed: 98 iterations in 0:00:12 (0.1322 s / it)
[06/16 19:51:18 d2.engine.hooks]: Total training time: 0:00:14 (0:00:02 on hooks)
[06/16 19:51:19 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...

WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.cls_score.weight' to the model due to
incompatible shapes: (81, 1024) in the checkpoint but (4, 1024) in the
model! You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.cls_score.bias' to the model due to
incompatible shapes: (81,) in the checkpoint but (4,) in the model!
You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.bbox_pred.weight' to the model due to
incompatible shapes: (320, 1024) in the checkpoint but (12, 1024) in
the model! You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.bbox_pred.bias' to the model due to
incompatible shapes: (320,) in the checkpoint but (12,) in the model!
You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.mask_head.predictor.weight' to the model due to
incompatible shapes: (80, 256, 1, 1) in the checkpoint but (3, 256, 1,
1) in the model! You might want to double check if this is expected.
```

```
WARNING:fvccore.common.checkpoint:Skip loading parameter  
'roi_heads.mask_head.predictor.bias' to the model due to incompatible  
shapes: (80,) in the checkpoint but (3,) in the model! You might want  
to double check if this is expected.  
WARNING:fvccore.common.checkpoint:Some model parameters or buffers are  
not found in the checkpoint:  
roi_heads.box_predictor.bbox_pred.{bias, weight}  
roi_heads.box_predictor.cls_score.{bias, weight}  
roi_heads.mask_head.predictor.{bias, weight}
```

Crack 1:

Label: microcrack
Length: 8.10 cm
Width: 12.00 cm
Depth: 0.10 cm
Volume: 9.72 cc
Area: 514845 pixels²

Crack 2:

Label: unmelted particle
Length: 1.60 cm
Width: 1.00 cm
Depth: 0.10 cm
Volume: 0.16 cc
Area: 33660 pixels²

Crack 3:

Label: unmelted particle
Length: 3.00 cm
Width: 2.10 cm
Depth: 0.10 cm
Volume: 0.63 cc
Area: 118065 pixels²

Crack 4:

Label: unmelted particle
Length: 0.60 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.03 cc
Area: 9180 pixels²

Crack 5:

Label: unmelted particle
Length: 2.20 cm
Width: 1.70 cm
Depth: 0.10 cm
Volume: 0.37 cc
Area: 61455 pixels²

Crack 6:
Label: unmelted particle
Length: 0.90 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.08 cc
Area: 16575 pixels²

Crack 7:
Label: unmelted particle
Length: 2.50 cm
Width: 2.50 cm
Depth: 0.10 cm
Volume: 0.62 cc
Area: 99195 pixels²

Crack 8:
Label: porosity
Length: 1.20 cm
Width: 0.90 cm
Depth: 0.10 cm
Volume: 0.11 cc
Area: 25755 pixels²

Crack 9:
Label: porosity
Length: 0.70 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11985 pixels²

Crack 10:
Label: unmelted particle
Length: 0.80 cm
Width: 0.70 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14280 pixels²

Crack 11:
Label: unmelted particle
Length: 0.90 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 10710 pixels²

Crack 12:
Label: unmelted particle

Length: 0.40 cm
Width: 0.50 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 6630 pixels²

Crack 13:
Label: porosity
Length: 0.80 cm
Width: 0.60 cm
Depth: 0.10 cm
Volume: 0.05 cc
Area: 11985 pixels²

Crack 14:
Label: microcrack
Length: 0.50 cm
Width: 1.10 cm
Depth: 0.10 cm
Volume: 0.06 cc
Area: 14535 pixels²

Crack 15:
Label: unmelted particle
Length: 0.70 cm
Width: 0.30 cm
Depth: 0.10 cm
Volume: 0.02 cc
Area: 5100 pixels²

Average area of microcracks: 2646.90 cm²
Average area of porosity: 165.75 cm²
Average area of unmelted particles: 374.85 cm²

```
!python -m pip install
'git+https://github.com/facebookresearch/detectron2.git'

Collecting git+https://github.com/facebookresearch/detectron2.git
  Cloning https://github.com/facebookresearch/detectron2.git to
/tmp/pip-req-build-io47c6wx
    Running command git clone --filter=blob:none --quiet
https://github.com/facebookresearch/detectron2.git /tmp/pip-req-build-
io47c6wx
      Resolved https://github.com/facebookresearch/detectron2.git to
commit 57bdb21249d5418c130d54e2ebdc94dda7a4c01a
      Preparing metadata (setup.py) ... ent already satisfied: Pillow>=7.1
in /usr/local/lib/python3.10/dist-packages (from detectron2==0.6)
(9.4.0)
Requirement already satisfied: matplotlib in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (3.7.1)
Requirement already satisfied: pycocotools>=2.0.2 in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.0.6)
Requirement already satisfied: termcolor>=1.1 in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.3.0)
Collecting yacs>=0.1.8 (from detectron2==0.6)
  Downloading yacs-0.1.8-py3-none-any.whl (14 kB)
Requirement already satisfied: tabulate in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (0.9.0)
Requirement already satisfied:云pickle in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6) (2.2.1)
Requirement already satisfied: tqdm>4.29.0 in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6)
(4.65.0)
Requirement already satisfied: tensorboard in
/usr/local/lib/python3.10/dist-packages (from detectron2==0.6)
(2.12.3)
Collecting fvcore<0.1.6,>=0.1.5 (from detectron2==0.6)
  Downloading fvcore-0.1.5.post20221221.tar.gz (50 kB)
  ━━━━━━━━━━━━━━━━ 50.2/50.2 kB 2.7 MB/s eta
0:00:00
etadata (setup.py) ... detectron2==0.6)
  Downloading iopath-0.1.9-py3-none-any.whl (27 kB)
Collecting omegaconf>=2.1 (from detectron2==0.6)
  Downloading omegaconf-2.3.0-py3-none-any.whl (79 kB)
  ━━━━━━━━━━━━━━ 79.5/79.5 kB 7.4 MB/s eta
0:00:00
detectron2==0.6)
  Downloading hydra_core-1.3.2-py3-none-any.whl (154 kB)
  ━━━━━━━━━━━━━━ 154.5/154.5 kB 8.7 MB/s eta
0:00:00
detectron2==0.6)
  Downloading black-23.7.0-cp310-cp310-
manylinux_2_17_x86_64.manylinux2014_x86_64.whl (1.7 MB)
  ━━━━━━━━━━━━ 1.7/1.7 MB 17.3 MB/s eta
```

```
0:00:00
ent already satisfied: packaging in /usr/local/lib/python3.10/dist-
packages (from detectron2==0.6) (23.1)
Requirement already satisfied: numpy in
/usr/local/lib/python3.10/dist-packages (from fvcore<0.1.6,>=0.1.5-
>detectron2==0.6) (1.22.4)
Requirement already satisfied: pyyaml>=5.1 in
/usr/local/lib/python3.10/dist-packages (from fvcore<0.1.6,>=0.1.5-
>detectron2==0.6) (6.0.1)
Collecting antlr4-python3-runtime==4.9.* (from hydra-core>=1.1-
>detectron2==0.6)
  Downloading antlr4-python3-runtime-4.9.3.tar.gz (117 kB)
  ━━━━━━━━━━━━━━━━ 117.0/117.0 kB 15.7 MB/s eta
0:00:00
etadata (setup.py) ... iopath<0.1.10,>=0.1.7->detectron2==0.6)
  Downloading portalocker-2.7.0-py2.py3-none-any.whl (15 kB)
Requirement already satisfied: contourpy>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (1.1.0)
Requirement already satisfied: cycler>=0.10 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (0.11.0)
Requirement already satisfied: fonttools>=4.22.0 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (4.41.1)
Requirement already satisfied: kiwisolver>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (1.4.4)
Requirement already satisfied: pyparsing>=2.3.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (3.1.0)
Requirement already satisfied: python-dateutil>=2.7 in
/usr/local/lib/python3.10/dist-packages (from matplotlib-
>detectron2==0.6) (2.8.2)
Requirement already satisfied: click>=8.0.0 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6)
(8.1.6)
Collecting mypy-extensions>=0.4.3 (from black->detectron2==0.6)
  Downloading mypy_extensions-1.0.0-py3-none-any.whl (4.7 kB)
Collecting pathspec>=0.9.0 (from black->detectron2==0.6)
  Downloading pathspec-0.11.2-py3-none-any.whl (29 kB)
Requirement already satisfied: platformdirs>=2 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6)
(3.9.1)
Requirement already satisfied: tomli>=1.1.0 in
/usr/local/lib/python3.10/dist-packages (from black->detectron2==0.6)
(2.0.1)
Requirement already satisfied: absl-py>=0.4 in
/usr/local/lib/python3.10/dist-packages (from tensorflow-
```

```
>detectron2==0.6) (1.4.0)
Requirement already satisfied: grpcio>=1.48.2 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (1.56.2)
Requirement already satisfied: google-auth<3,>=1.6.3 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (2.17.3)
Requirement already satisfied: google-auth-oauthlib<1.1,>=0.5 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (1.0.0)
Requirement already satisfied: markdown>=2.6.8 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (3.4.4)
Requirement already satisfied: protobuf>=3.19.6 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (3.20.3)
Requirement already satisfied: requests<3,>=2.21.0 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (2.27.1)
Requirement already satisfied: setuptools>=41.0.0 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (67.7.2)
Requirement already satisfied: tensorboard-data-server<0.8.0,>=0.7.0
in /usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (0.7.1)
Requirement already satisfied: werkzeug>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (2.3.6)
Requirement already satisfied: wheel>=0.26 in
/usr/local/lib/python3.10/dist-packages (from tensorboard-
>detectron2==0.6) (0.41.0)
Requirement already satisfied: cachetools<6.0,>=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (5.3.1)
Requirement already satisfied: pyasn1-modules>=0.2.1 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (0.3.0)
Requirement already satisfied: six>=1.9.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (1.16.0)
Requirement already satisfied: rsa<5,>=3.1.4 in
/usr/local/lib/python3.10/dist-packages (from google-auth<3,>=1.6.3-
>tensorboard->detectron2==0.6) (4.9)
Requirement already satisfied: requests-oauthlib>=0.7.0 in
/usr/local/lib/python3.10/dist-packages (from google-auth-
oauthlib<1.1,>=0.5->tensorboard->detectron2==0.6) (1.3.1)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (1.26.16)
```

```
Requirement already satisfied: certifi>=2017.4.17 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (2023.7.22)
Requirement already satisfied: charset-normalizer~=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (2.0.12)
Requirement already satisfied: idna<4,>=2.5 in
/usr/local/lib/python3.10/dist-packages (from requests<3,>=2.21.0-
>tensorboard->detectron2==0.6) (3.4)
Requirement already satisfied: MarkupSafe>=2.1.1 in
/usr/local/lib/python3.10/dist-packages (from werkzeug>=1.0.1-
>tensorboard->detectron2==0.6) (2.1.3)
Requirement already satisfied: pyasn1<0.6.0,>=0.4.6 in
/usr/local/lib/python3.10/dist-packages (from pyasn1-modules>=0.2.1-
>google-auth<3,>=1.6.3->tensorboard->detectron2==0.6) (0.5.0)
Requirement already satisfied: oauthlib>=3.0.0 in
/usr/local/lib/python3.10/dist-packages (from requests-
oauthlib>=0.7.0->google-auth-oauthlib<1.1,>=0.5->tensorboard-
>detectron2==0.6) (3.2.2)
Building wheels for collected packages: detectron2, fvcore, antlr4-
python3-runtime
  Building wheel for detectron2 (setup.py) ... e=detectron2-0.6-cp310-
cp310-linux_x86_64.whl size=6111847
sha256=20d3a73dbf27c1ba86ae449b4567bee8a83223d36ff6b1d4774dc3fc87e99c5
3
    Stored in directory:
/tmp/pip-ephem-wheel-cache-h6wetmzp/wheels/47/e5/15/94c80df2ba85500c5d
76599cc307c0a7079d0e221bb6fc4375
  Building wheel for fvcore (setup.py) ... e=fvcore-
0.1.5.post20221221-py3-none-any.whl size=61406
sha256=5b41ede71b64fdebb9c4bc9a190c59e66273950163045a10810d9ee9a29efb6
6
    Stored in directory:
/root/.cache/pip/wheels/01/c0/af/77c1cf53a1be9e42a52b48e5af2169d40ec2e
89f7362489dd0
  Building wheel for antlr4-python3-runtime (setup.py) ... e:
filename=antlr4_python3_runtime-4.9.3-py3-none-any.whl size=144552
sha256=53f4ad43b752ee5923a7c12d91bb13b95241a378e6cd2233c42eb40b30975e3
0
    Stored in directory:
/root/.cache/pip/wheels/12/93/dd/1f6a127edc45659556564c5730f6d4e300888
f4bca2d4c5a88
Successfully built detectron2 fvcore antlr4-python3-runtime
Installing collected packages: antlr4-python3-runtime, yacs,
portalocker, pathspec, omegaconf, mypy-extensions, iopath, hydra-core,
black, fvcore, detectron2
Successfully installed antlr4-python3-runtime-4.9.3 black-23.7.0
detectron2-0.6 fvcore-0.1.5.post20221221 hydra-core-1.3.2 iopath-0.1.9
```

```
mypy-extensions-1.0.0 omegaconf-2.3.0 pathspec-0.11.2 portalocker-  
2.7.0 yacs-0.1.8  
!python -m pip install pyyaml==5.1  
Collecting pyyaml==5.1  
  Downloading PyYAML-5.1.tar.gz (274 kB)  
   ━━━━━━━━━━━━━━━━ 0.0/274.2 kB ? eta -:--:  
   ━━━━━━━━━━━━━━━━ 143.4/274.2 kB 4.5 MB/s eta  
0:00:01 ━━━━━━━━━━━━━━━━ 274.2/274.2 kB 5.3  
MB/s eta 0:00:00  
  etadata (setup.py) ... l  
    Building wheel for pyyaml (setup.py) ... l: filename=PyYAML-5.1-  
cp310-cp310-linux_x86_64.whl size=44091  
sha256=f6207a969f5a6b14b518ff088aff3d3dfa2f530f696bb1f3607dce9c503b741  
e  
  Stored in directory:  
/root/.cache/pip/wheels/70/83/31/975b737609aba39a4099d471d5684141c1fdc  
3404f97e7f68a  
Successfully built pyyaml  
Installing collected packages: pyyaml  
Attempting uninstall: pyyaml  
  Found existing installation: PyYAML 6.0.1  
  Uninstalling PyYAML-6.0.1:  
    Successfully uninstalled PyYAML-6.0.1  
ERROR: pip's dependency resolver does not currently take into account  
all the packages that are installed. This behaviour is the source of  
the following dependency conflicts.  
dask 2022.12.1 requires pyyaml>=5.3.1, but you have pyyaml 5.1 which  
is incompatible.  
flax 0.7.0 requires PyYAML>=5.4.1, but you have pyyaml 5.1 which is  
incompatible.  
Successfully installed pyyaml-5.1  
  
import torch, detectron2  
!nvcc --version  
TORCH_VERSION = ".".join(torch.__version__.split(".")[:2])  
CUDA_VERSION = torch.__version__.split("+")[-1]  
print("torch: ", TORCH_VERSION, "; cuda: ", CUDA_VERSION)  
print("detectron2:", detectron2.__version__)  
  
nvcc: NVIDIA (R) Cuda compiler driver  
Copyright (c) 2005-2022 NVIDIA Corporation  
Built on Wed_Sep_21_10:33:58_PDT_2022  
Cuda compilation tools, release 11.8, V11.8.89  
Build cuda_11.8.r11.8/compiler.31833905_0  
torch: 2.0 ; cuda: cu118  
detectron2: 0.6
```

```
import detectron2
from detectron2.utils.logger import setup_logger
setup_logger()

# import some common libraries
import numpy as np
import cv2
import matplotlib.pyplot as plt

# import some common detectron2 utilities
from detectron2 import model_zoo
from detectron2.engine import DefaultPredictor
from detectron2.config import get_cfg
from detectron2.utils.visualizer import Visualizer
from detectron2.data import MetadataCatalog, DatasetCatalog

from google.colab import drive
drive.mount('/content/drive')

Mounted at /content/drive

import os
import numpy as np
import json
from detectron2.structures import BoxMode

def get_r_dicts(directory):

    classes = ['unmelted particle', 'porosity', 'microcrack']
    dataset_dicts = []
    for idx, filename in enumerate([file for file in
os.listdir(directory) if file.endswith('.json')]):
        json_file = os.path.join(directory, filename)
        with open(json_file) as f:
            img_anns = json.load(f)

        record = {}

        filename = os.path.join(directory, img_anns["imagePath"])

        record["file_name"] = filename
        record["image_id"] = idx
        record["height"] = 528
        record["width"] = 960

        annos = img_anns["shapes"]
        objs = []
        for anno in annos:
            px = [a[0] for a in anno['points']]
            py = [a[1] for a in anno['points']]
            poly = [(x, y) for x, y in zip(px, py)]
            obj = {
                "bbox": [min(px), min(py), max(px), max(py)],
                "bbox_mode": BoxMode.XYXY_ABS,
                "category_id": classes.index(anno['label'])}
            objs.append(obj)

        record["instances"] = objs
        dataset_dicts.append(record)
```

```

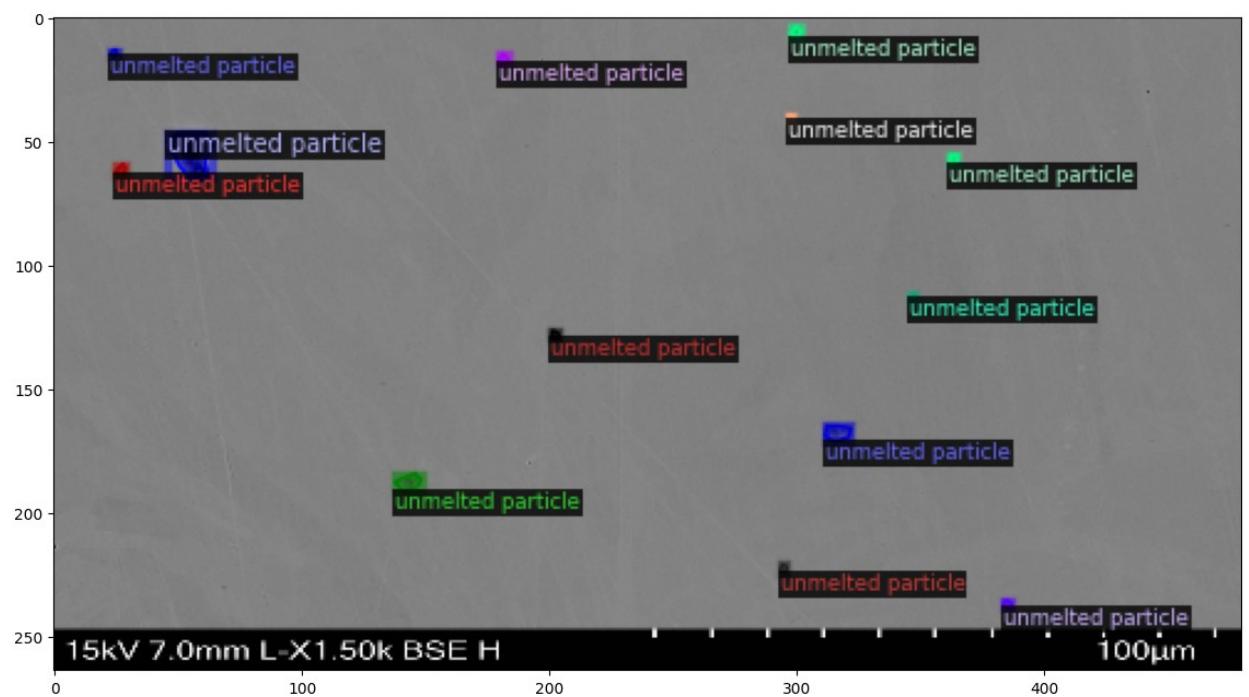
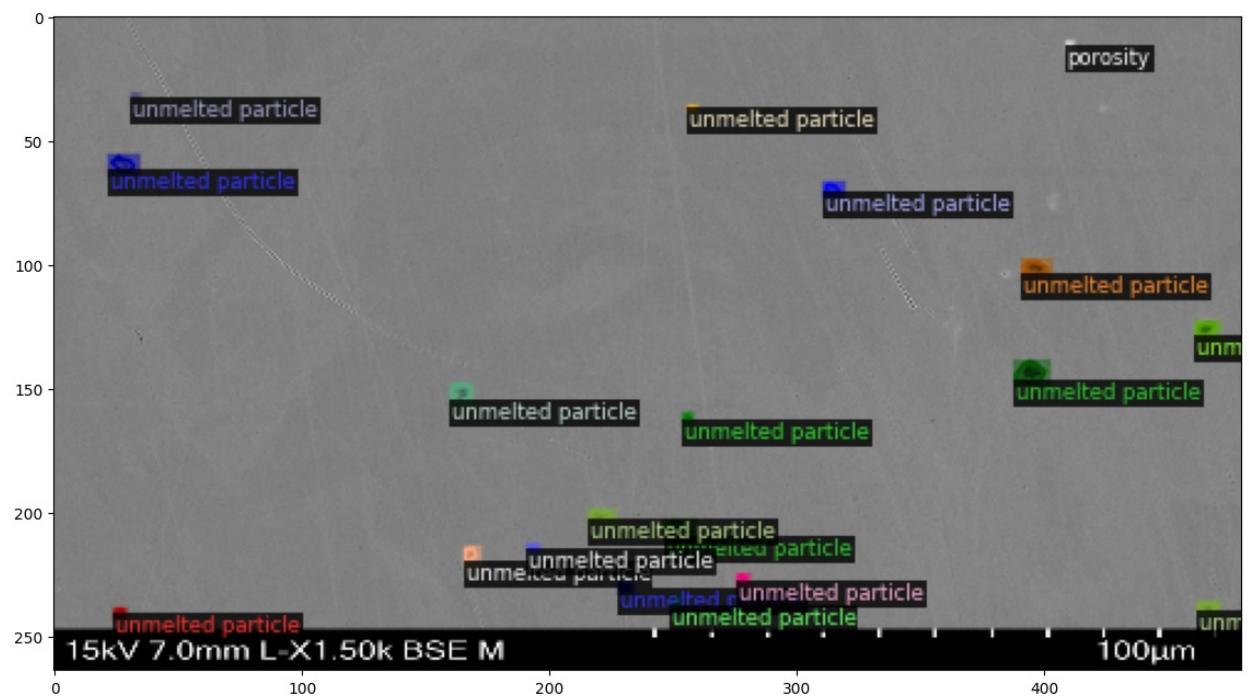
        poly = [p for x in poly for p in x]
        obj = {
            "bbox": [np.min(px), np.min(py), np.max(px),
        np.max(py)],
            "bbox_mode": BoxMode.XYXY_ABS,
            "segmentation": [poly],
            "category_id": classes.index(anno['label']),
            "iscrowd": 0
        }
        objs.append(obj)
    record["annotations"] = objs
    dataset_dicts.append(record)
return dataset_dicts

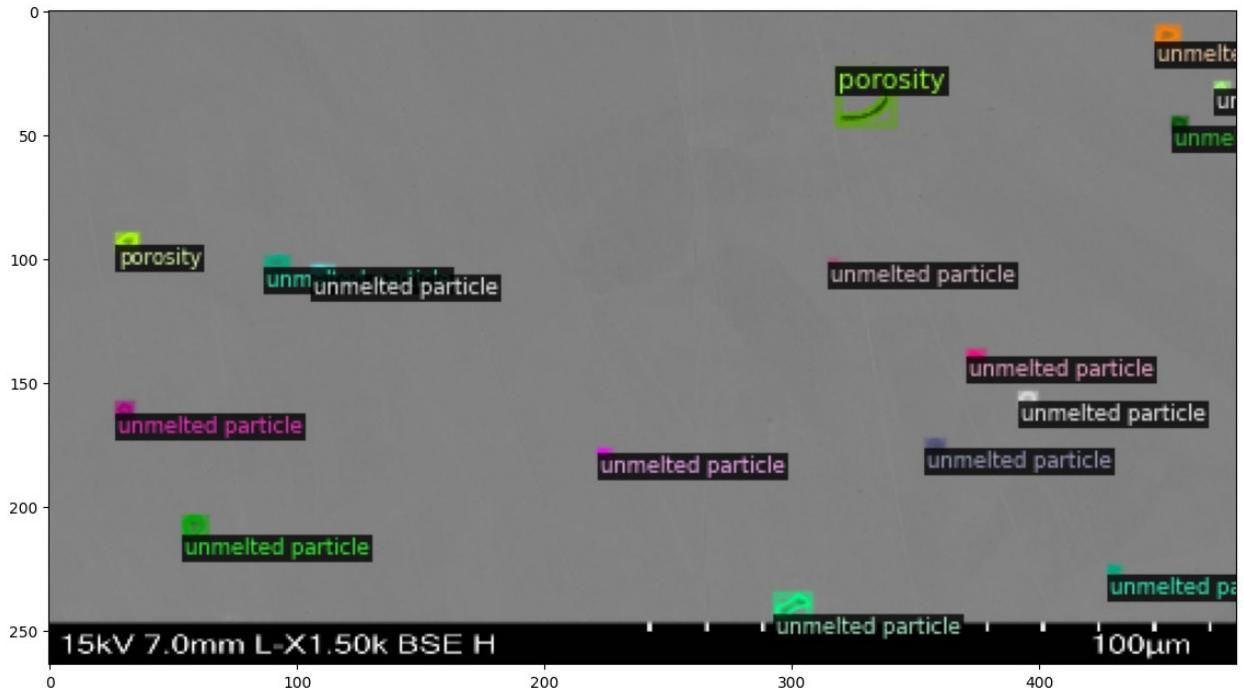
from detectron2.data import DatasetCatalog, MetadataCatalog
for d in ["train", "test"]:
    DatasetCatalog.register("p_" + d, lambda d=d:
get_r_dicts('/content/drive/MyDrive/Mahabub/' + d))
    MetadataCatalog.get("p_" + d).set(thing_classes=['unmelted
particle', 'porosity', 'microcrack'])
r_metadata = MetadataCatalog.get("p_train")

import random

dataset_dicts = get_r_dicts("/content/drive/MyDrive/Mahabub/train")
for d in random.sample(dataset_dicts, 3):
    img = cv2.imread(d["file_name"])
    v = Visualizer(img[:, :, ::-1], metadata=r_metadata, scale=0.5)
    v = v.draw_dataset_dict(d)
    plt.figure(figsize = (14, 10))
    plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1],
cv2.COLOR_BGR2RGB))
    plt.show()

```





```

from detectron2.engine import DefaultTrainer
from detectron2.config import get_cfg

cfg = get_cfg()
cfg.merge_from_file(model_zoo.get_config_file("COCO-
InstanceSegmentation/mask_rcnn_R_50_FPN_3x.yaml"))
cfg.DATASETS.TRAIN = ("p_train",)
cfg.DATASETS.TEST = ()
cfg.DATA_LOADER.NUM_WORKERS = 2
cfg.MODEL.WEIGHTS = model_zoo.get_checkpoint_url("COCO-
InstanceSegmentation/mask_rcnn_R_50_FPN_3x.yaml")
cfg.SOLVER.IMS_PER_BATCH = 2
cfg.SOLVER.BASE_LR = 0.00025
cfg.SOLVER.MAX_ITER = 10000
cfg.SOLVER.STEPS = []           # do not decay learning rate
cfg.MODEL.ROI_HEADS.NUM_CLASSES = 3

os.makedirs(cfg.OUTPUT_DIR, exist_ok=True)
trainer = DefaultTrainer(cfg)
trainer.resume_or_load(resume=False)
trainer.train()

[08/02 21:41:50 d2.engine.defaults]: Model:
GeneralizedRCNN(
  (backbone): FPN(
    (fpn_lateral2): Conv2d(256, 256, kernel_size=(1, 1), stride=(1,
1))
    (fpn_output2): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
  )
)

```

```
padding=(1, 1))
        (fpn_lateral3): Conv2d(512, 256, kernel_size=(1, 1), stride=(1,
1))
        (fpn_output3): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (fpn_lateral4): Conv2d(1024, 256, kernel_size=(1, 1), stride=(1,
1))
        (fpn_output4): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (fpn_lateral5): Conv2d(2048, 256, kernel_size=(1, 1), stride=(1,
1))
        (fpn_output5): Conv2d(256, 256, kernel_size=(3, 3), stride=(1, 1),
padding=(1, 1))
        (top_block): LastLevelMaxPool()
        (bottom_up): ResNet(
            (stem): BasicStem(
                (conv1): Conv2d(
                    3, 64, kernel_size=(7, 7), stride=(2, 2), padding=(3, 3),
bias=False
                    (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
                )
            )
            (res2): Sequential(
                (0): BottleneckBlock(
                    (shortcut): Conv2d(
                        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
                        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
                    )
                    (conv1): Conv2d(
                        64, 64, kernel_size=(1, 1), stride=(1, 1), bias=False
                        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
                    )
                    (conv2): Conv2d(
                        64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
                        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
                    )
                    (conv3): Conv2d(
                        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
                        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
                    )
                )
                (1): BottleneckBlock(
                    (conv1): Conv2d(
                        256, 64, kernel_size=(1, 1), stride=(1, 1), bias=False
                        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
                    )
                    (conv2): Conv2d(
                        64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
                        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
                    )
                )
            )
        )
    )
)
```

```
bias=False
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
    )
    (conv3): Conv2d(
        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        256, 64, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
    )
    (conv2): Conv2d(
        64, 64, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1),
bias=False
        (norm): FrozenBatchNorm2d(num_features=64, eps=1e-05)
    )
    (conv3): Conv2d(
        64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
)
)
(res3): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            256, 512, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
        (conv1): Conv2d(
            256, 128, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
        (conv2): Conv2d(
            128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
        (conv3): Conv2d(
            128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
    )
    (1): BottleneckBlock(
        (conv1): Conv2d(
            512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
            (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
        )
    )
)
```

```
(conv2): Conv2d(
    128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
    (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
)
(conv3): Conv2d(
    128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
)
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv2): Conv2d(
        128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv3): Conv2d(
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
(3): BottleneckBlock(
    (conv1): Conv2d(
        512, 128, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv2): Conv2d(
        128, 128, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=128, eps=1e-05)
    )
    (conv3): Conv2d(
        128, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
)
)
(res4): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            512, 1024, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
        )
        (conv1): Conv2d(
            512, 256, kernel_size=(1, 1), stride=(2, 2), bias=False
        )
    )
)
```

```
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(1): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(3): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
```

```
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(4): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
(5): BottleneckBlock(
    (conv1): Conv2d(
        1024, 256, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv2): Conv2d(
        256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=256, eps=1e-05)
    )
    (conv3): Conv2d(
        256, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=1024, eps=1e-05)
    )
)
)
(res5): Sequential(
    (0): BottleneckBlock(
        (shortcut): Conv2d(
            1024, 2048, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
        )
        (conv1): Conv2d(
            1024, 512, kernel_size=(1, 1), stride=(2, 2), bias=False
            (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
        )
    )
)
```

```
(conv2): Conv2d(
    512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
    (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
)
(conv3): Conv2d(
    512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
    (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
)
)
(1): BottleneckBlock(
    (conv1): Conv2d(
        2048, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv2): Conv2d(
        512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv3): Conv2d(
        512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
    )
)
(2): BottleneckBlock(
    (conv1): Conv2d(
        2048, 512, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv2): Conv2d(
        512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1,
1), bias=False
        (norm): FrozenBatchNorm2d(num_features=512, eps=1e-05)
    )
    (conv3): Conv2d(
        512, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False
        (norm): FrozenBatchNorm2d(num_features=2048, eps=1e-05)
    )
)
)
)
)
(proposal_generator): RPN(
    (rpn_head): StandardRPNHead(
        (conv): Conv2d(
            256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1)
            (activation): ReLU()
    )
)
```

```
        (objectness_logits): Conv2d(256, 3, kernel_size=(1, 1),
      stride=(1, 1))
        (anchor_deltas): Conv2d(256, 12, kernel_size=(1, 1), stride=(1,
      1))
    )
    (anchor_generator): DefaultAnchorGenerator(
        (cell_anchors): BufferList()
    )
)
(roi_heads): StandardROIHeads(
    (box_pooler): ROIPooler(
        (level_poolers): ModuleList(
            (0): ROIAlign(output_size=(7, 7), spatial_scale=0.25,
      sampling_ratio=0, aligned=True)
            (1): ROIAlign(output_size=(7, 7), spatial_scale=0.125,
      sampling_ratio=0, aligned=True)
            (2): ROIAlign(output_size=(7, 7), spatial_scale=0.0625,
      sampling_ratio=0, aligned=True)
            (3): ROIAlign(output_size=(7, 7), spatial_scale=0.03125,
      sampling_ratio=0, aligned=True)
        )
    )
    (box_head): FastRCNNConvFCHead(
        (flatten): Flatten(start_dim=1, end_dim=-1)
        (fc1): Linear(in_features=12544, out_features=1024, bias=True)
        (fc_relu1): ReLU()
        (fc2): Linear(in_features=1024, out_features=1024, bias=True)
        (fc_relu2): ReLU()
    )
    (box_predictor): FastRCNNOutputLayers(
        (cls_score): Linear(in_features=1024, out_features=4, bias=True)
        (bbox_pred): Linear(in_features=1024, out_features=12,
      bias=True)
    )
    (mask_pooler): ROIPooler(
        (level_poolers): ModuleList(
            (0): ROIAlign(output_size=(14, 14), spatial_scale=0.25,
      sampling_ratio=0, aligned=True)
            (1): ROIAlign(output_size=(14, 14), spatial_scale=0.125,
      sampling_ratio=0, aligned=True)
            (2): ROIAlign(output_size=(14, 14), spatial_scale=0.0625,
      sampling_ratio=0, aligned=True)
            (3): ROIAlign(output_size=(14, 14), spatial_scale=0.03125,
      sampling_ratio=0, aligned=True)
        )
    )
    (mask_head): MaskRCNNConvUpsampleHead(
        (mask_fcn1): Conv2d(
            256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1)
```

```

        (activation): ReLU()
    )
(mask_fcn2): Conv2d(
    256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1)
    (activation): ReLU()
)
(mask_fcn3): Conv2d(
    256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1)
    (activation): ReLU()
)
(mask_fcn4): Conv2d(
    256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1)
    (activation): ReLU()
)
(deconv): ConvTranspose2d(256, 256, kernel_size=(2, 2),
stride=(2, 2))
(deconv_relu): ReLU()
(predictor): Conv2d(256, 3, kernel_size=(1, 1), stride=(1, 1))
)
)
)
[08/02 21:42:07 d2.data.build]: Removed 0 images with no usable
annotations. 42 images left.
[08/02 21:42:07 d2.data.build]: Distribution of instances among all 3
categories:
|   category      | #instances      |   category      | #instances      |   category
| #instances      |                  | #instances      |                  | #instances
| :-----: | :-----: | :-----: | :-----: | :-----:
| :|:-----: |
| unmelted pa.. | 639           | porosity       | 67             |
microcrack | 9           |                  |                 |
|           |           |           |           |
|           |           |           |           |
|   total     | 715           |           |           |
|           |           |           |           |
[08/02 21:42:07 d2.data.dataset_mapper]: [DatasetMapper] Augmentations
used in training: [ResizeShortestEdge(short_edge_length=(640, 672,
704, 736, 768, 800), max_size=1333, sample_style='choice'),
RandomFlip()]
[08/02 21:42:07 d2.data.build]: Using training sampler TrainingSampler
[08/02 21:42:07 d2.data.common]: Serializing the dataset using: <class
'detectron2.data.common._TorchSerializedList'>
[08/02 21:42:07 d2.data.common]: Serializing 42 elements to byte
tensors and concatenating them all ...
[08/02 21:42:07 d2.data.common]: Serialized dataset takes 0.16 MiB
[08/02 21:42:07 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from
https://dl.fbaipublicfiles.com/detectron2/COCO-InstanceSegmentation/mask\_rcnn\_R\_50\_FPN\_3x/137849600/model\_final\_f10217.pkl ...

```

```
model_final_f10217.pkl: 178MB [00:00, 216MB/s]

WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.cls_score.weight' to the model due to
incompatible shapes: (81, 1024) in the checkpoint but (4, 1024) in the
model! You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.cls_score.bias' to the model due to
incompatible shapes: (81,) in the checkpoint but (4,) in the model!
You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.bbox_pred.weight' to the model due to
incompatible shapes: (320, 1024) in the checkpoint but (12, 1024) in
the model! You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.box_predictor.bbox_pred.bias' to the model due to
incompatible shapes: (320,) in the checkpoint but (12,) in the model!
You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.mask_head.predictor.weight' to the model due to
incompatible shapes: (80, 256, 1, 1) in the checkpoint but (3, 256, 1,
1) in the model! You might want to double check if this is expected.
WARNING:fvcore.common.checkpoint:Skip loading parameter
'roi_heads.mask_head.predictor.bias' to the model due to incompatible
shapes: (80,) in the checkpoint but (3,) in the model! You might want
to double check if this is expected.
WARNING:fvcore.common.checkpoint:Some model parameters or buffers are
not found in the checkpoint:
roi_heads.box_predictor.bbox_pred.{bias, weight}
roi_heads.box_predictor.cls_score.{bias, weight}
roi_heads.mask_head.predictor.{bias, weight}

[08/02 21:42:08 d2.engine.train_loop]: Starting training from
iteration 0

/usr/local/lib/python3.10/dist-packages/torch/functional.py:504:
UserWarning: torch.meshgrid: in an upcoming release, it will be
required to pass the indexing argument. (Triggered internally at
../../aten/src/ATen/native/TensorShape.cpp:3483.)
    return _VF.meshgrid(tensors, **kwargs) # type: ignore[attr-defined]

[08/02 21:42:20 d2.utils.events]: eta: 1:05:11 iter: 19 total_loss:
4.234 loss_cls: 1.34 loss_box_reg: 0.6884 loss_mask: 0.6944
loss_rpn_cls: 1.264 loss_rpn_loc: 0.244 time: 0.3973 last_time:
0.3706 data_time: 0.2358 last_data_time: 0.2368 lr: 4.9953e-06
max_mem: 2583M
[08/02 21:42:26 d2.utils.events]: eta: 0:25:14 iter: 39 total_loss:
3.204 loss_cls: 1.275 loss_box_reg: 0.6926 loss_mask: 0.6895
loss_rpn_cls: 0.2916 loss_rpn_loc: 0.2307 time: 0.2634 last_time:
0.1414 data_time: 0.0045 last_data_time: 0.0043 lr: 9.9902e-06
```

```
max_mem: 2606M
[08/02 21:42:29 d2.utils.events]: eta: 0:24:08 iter: 59 total_loss: 2.748 loss_cls: 1.085 loss_box_reg: 0.7022 loss_mask: 0.6793 loss_rpn_cls: 0.07974 loss_rpn_loc: 0.2203 time: 0.2214 last_time: 0.1442 data_time: 0.0051 last_data_time: 0.0046 lr: 1.4985e-05 max_mem: 2606M
[08/02 21:42:31 d2.utils.events]: eta: 0:24:00 iter: 79 total_loss: 2.49 loss_cls: 0.8391 loss_box_reg: 0.6803 loss_mask: 0.6661 loss_rpn_cls: 0.05076 loss_rpn_loc: 0.2155 time: 0.2009 last_time: 0.1413 data_time: 0.0049 last_data_time: 0.0050 lr: 1.998e-05 max_mem: 2606M
[08/02 21:42:34 d2.utils.events]: eta: 0:23:46 iter: 99 total_loss: 2.184 loss_cls: 0.6648 loss_box_reg: 0.6379 loss_mask: 0.6464 loss_rpn_cls: 0.04535 loss_rpn_loc: 0.2189 time: 0.1907 last_time: 0.1382 data_time: 0.0050 last_data_time: 0.0049 lr: 2.4975e-05 max_mem: 2606M
[08/02 21:42:37 d2.utils.events]: eta: 0:23:16 iter: 119 total_loss: 2.14 loss_cls: 0.5809 loss_box_reg: 0.6568 loss_mask: 0.6255 loss_rpn_cls: 0.05464 loss_rpn_loc: 0.217 time: 0.1816 last_time: 0.1285 data_time: 0.0046 last_data_time: 0.0045 lr: 2.997e-05 max_mem: 2606M
[08/02 21:42:40 d2.utils.events]: eta: 0:22:56 iter: 139 total_loss: 1.984 loss_cls: 0.5029 loss_box_reg: 0.6195 loss_mask: 0.6023 loss_rpn_cls: 0.03363 loss_rpn_loc: 0.2206 time: 0.1746 last_time: 0.1427 data_time: 0.0046 last_data_time: 0.0047 lr: 3.4965e-05 max_mem: 2606M
[08/02 21:42:43 d2.utils.events]: eta: 0:22:47 iter: 159 total_loss: 1.924 loss_cls: 0.4677 loss_box_reg: 0.6298 loss_mask: 0.58 loss_rpn_cls: 0.03959 loss_rpn_loc: 0.2107 time: 0.1703 last_time: 0.1231 data_time: 0.0046 last_data_time: 0.0043 lr: 3.996e-05 max_mem: 2609M
[08/02 21:42:45 d2.utils.events]: eta: 0:22:37 iter: 179 total_loss: 1.772 loss_cls: 0.3904 loss_box_reg: 0.6046 loss_mask: 0.5467 loss_rpn_cls: 0.03347 loss_rpn_loc: 0.2229 time: 0.1662 last_time: 0.1417 data_time: 0.0045 last_data_time: 0.0046 lr: 4.4955e-05 max_mem: 2609M
[08/02 21:42:48 d2.utils.events]: eta: 0:22:25 iter: 199 total_loss: 1.769 loss_cls: 0.3797 loss_box_reg: 0.6407 loss_mask: 0.517 loss_rpn_cls: 0.03535 loss_rpn_loc: 0.2242 time: 0.1628 last_time: 0.1403 data_time: 0.0044 last_data_time: 0.0046 lr: 4.995e-05 max_mem: 2609M
[08/02 21:42:51 d2.utils.events]: eta: 0:22:11 iter: 219 total_loss: 1.62 loss_cls: 0.3149 loss_box_reg: 0.5384 loss_mask: 0.494 loss_rpn_cls: 0.03443 loss_rpn_loc: 0.2128 time: 0.1597 last_time: 0.1262 data_time: 0.0044 last_data_time: 0.0042 lr: 5.4945e-05 max_mem: 2609M
[08/02 21:42:53 d2.utils.events]: eta: 0:22:03 iter: 239 total_loss: 1.614 loss_cls: 0.3106 loss_box_reg: 0.5896 loss_mask: 0.4751 loss_rpn_cls: 0.03424 loss_rpn_loc: 0.2078 time: 0.1571
```

```
last_time: 0.1250 data_time: 0.0045 last_data_time: 0.0046 lr:  
5.994e-05 max_mem: 2609M  
[08/02 21:42:56 d2.utils.events]: eta: 0:21:58 iter: 259  
total_loss: 1.562 loss_cls: 0.2748 loss_box_reg: 0.5913 loss_mask:  
0.4575 loss_rpn_cls: 0.03264 loss_rpn_loc: 0.213 time: 0.1554  
last_time: 0.1401 data_time: 0.0048 last_data_time: 0.0052 lr:  
6.4935e-05 max_mem: 2609M  
[08/02 21:42:59 d2.utils.events]: eta: 0:21:54 iter: 279  
total_loss: 1.509 loss_cls: 0.281 loss_box_reg: 0.5902 loss_mask:  
0.448 loss_rpn_cls: 0.03047 loss_rpn_loc: 0.1891 time: 0.1538  
last_time: 0.1284 data_time: 0.0048 last_data_time: 0.0051 lr:  
6.993e-05 max_mem: 2609M  
[08/02 21:43:01 d2.utils.events]: eta: 0:21:50 iter: 299  
total_loss: 1.502 loss_cls: 0.2739 loss_box_reg: 0.5558 loss_mask:  
0.4254 loss_rpn_cls: 0.04609 loss_rpn_loc: 0.2122 time: 0.1523  
last_time: 0.1290 data_time: 0.0053 last_data_time: 0.0051 lr:  
7.4925e-05 max_mem: 2609M  
[08/02 21:43:04 d2.utils.events]: eta: 0:21:45 iter: 319  
total_loss: 1.459 loss_cls: 0.2629 loss_box_reg: 0.5532 loss_mask:  
0.4241 loss_rpn_cls: 0.03251 loss_rpn_loc: 0.2105 time: 0.1510  
last_time: 0.1275 data_time: 0.0044 last_data_time: 0.0043 lr:  
7.992e-05 max_mem: 2609M  
[08/02 21:43:07 d2.utils.events]: eta: 0:21:40 iter: 339  
total_loss: 1.426 loss_cls: 0.246 loss_box_reg: 0.5498 loss_mask:  
0.4041 loss_rpn_cls: 0.02716 loss_rpn_loc: 0.2047 time: 0.1500  
last_time: 0.1359 data_time: 0.0045 last_data_time: 0.0048 lr:  
8.4915e-05 max_mem: 2609M  
[08/02 21:43:09 d2.utils.events]: eta: 0:21:36 iter: 359  
total_loss: 1.407 loss_cls: 0.2407 loss_box_reg: 0.5651 loss_mask:  
0.3879 loss_rpn_cls: 0.03147 loss_rpn_loc: 0.1975 time: 0.1490  
last_time: 0.1362 data_time: 0.0046 last_data_time: 0.0043 lr:  
8.991e-05 max_mem: 2609M  
[08/02 21:43:12 d2.utils.events]: eta: 0:21:33 iter: 379  
total_loss: 1.405 loss_cls: 0.2415 loss_box_reg: 0.5379 loss_mask:  
0.3829 loss_rpn_cls: 0.04248 loss_rpn_loc: 0.1996 time: 0.1480  
last_time: 0.1269 data_time: 0.0045 last_data_time: 0.0045 lr:  
9.4905e-05 max_mem: 2609M  
[08/02 21:43:14 d2.utils.events]: eta: 0:21:29 iter: 399  
total_loss: 1.383 loss_cls: 0.2168 loss_box_reg: 0.5681 loss_mask:  
0.3771 loss_rpn_cls: 0.02885 loss_rpn_loc: 0.1839 time: 0.1472  
last_time: 0.1141 data_time: 0.0044 last_data_time: 0.0044 lr:  
9.99e-05 max_mem: 2609M  
[08/02 21:43:17 d2.utils.events]: eta: 0:21:23 iter: 419  
total_loss: 1.39 loss_cls: 0.2287 loss_box_reg: 0.5533 loss_mask:  
0.3688 loss_rpn_cls: 0.03255 loss_rpn_loc: 0.2112 time: 0.1464  
last_time: 0.1370 data_time: 0.0045 last_data_time: 0.0045 lr:  
0.0001049 max_mem: 2609M  
[08/02 21:43:20 d2.utils.events]: eta: 0:21:19 iter: 439  
total_loss: 1.378 loss_cls: 0.2246 loss_box_reg: 0.5479 loss_mask:
```

```
0.3654 loss_rpn_cls: 0.02867 loss_rpn_loc: 0.1955 time: 0.1457
last_time: 0.1406 data_time: 0.0045 last_data_time: 0.0045 lr:
0.00010989 max_mem: 2609M
[08/02 21:43:22 d2.utils.events]: eta: 0:21:17 iter: 459
total_loss: 1.329 loss_cls: 0.2271 loss_box_reg: 0.4952 loss_mask:
0.3609 loss_rpn_cls: 0.02427 loss_rpn_loc: 0.2077 time: 0.1453
last_time: 0.1372 data_time: 0.0049 last_data_time: 0.0044 lr:
0.00011489 max_mem: 2609M
[08/02 21:43:25 d2.utils.events]: eta: 0:21:15 iter: 479
total_loss: 1.38 loss_cls: 0.232 loss_box_reg: 0.5432 loss_mask:
0.3556 loss_rpn_cls: 0.03221 loss_rpn_loc: 0.1834 time: 0.1447
last_time: 0.1333 data_time: 0.0046 last_data_time: 0.0045 lr:
0.00011988 max_mem: 2609M
[08/02 21:43:28 d2.utils.events]: eta: 0:21:12 iter: 499
total_loss: 1.301 loss_cls: 0.2163 loss_box_reg: 0.4906 loss_mask:
0.3596 loss_rpn_cls: 0.02999 loss_rpn_loc: 0.1901 time: 0.1442
last_time: 0.1402 data_time: 0.0046 last_data_time: 0.0046 lr:
0.00012488 max_mem: 2609M
[08/02 21:43:30 d2.utils.events]: eta: 0:21:09 iter: 519
total_loss: 1.335 loss_cls: 0.2336 loss_box_reg: 0.4916 loss_mask:
0.3512 loss_rpn_cls: 0.03233 loss_rpn_loc: 0.1954 time: 0.1438
last_time: 0.1249 data_time: 0.0045 last_data_time: 0.0043 lr:
0.00012987 max_mem: 2609M
[08/02 21:43:33 d2.utils.events]: eta: 0:21:05 iter: 539
total_loss: 1.285 loss_cls: 0.2008 loss_box_reg: 0.4955 loss_mask:
0.3478 loss_rpn_cls: 0.02851 loss_rpn_loc: 0.2066 time: 0.1433
last_time: 0.1296 data_time: 0.0047 last_data_time: 0.0050 lr:
0.00013487 max_mem: 2609M
[08/02 21:43:36 d2.utils.events]: eta: 0:21:02 iter: 559
total_loss: 1.263 loss_cls: 0.2231 loss_box_reg: 0.4904 loss_mask:
0.3533 loss_rpn_cls: 0.02415 loss_rpn_loc: 0.1933 time: 0.1430
last_time: 0.1281 data_time: 0.0052 last_data_time: 0.0046 lr:
0.00013986 max_mem: 2609M
[08/02 21:43:38 d2.utils.events]: eta: 0:21:00 iter: 579
total_loss: 1.365 loss_cls: 0.221 loss_box_reg: 0.5252 loss_mask:
0.3463 loss_rpn_cls: 0.03577 loss_rpn_loc: 0.1949 time: 0.1426
last_time: 0.1318 data_time: 0.0052 last_data_time: 0.0042 lr:
0.00014486 max_mem: 2609M
[08/02 21:43:41 d2.utils.events]: eta: 0:20:56 iter: 599
total_loss: 1.288 loss_cls: 0.2096 loss_box_reg: 0.4876 loss_mask:
0.341 loss_rpn_cls: 0.03579 loss_rpn_loc: 0.1972 time: 0.1422
last_time: 0.1388 data_time: 0.0044 last_data_time: 0.0046 lr:
0.00014985 max_mem: 2609M
[08/02 21:43:44 d2.utils.events]: eta: 0:20:51 iter: 619
total_loss: 1.297 loss_cls: 0.2024 loss_box_reg: 0.4905 loss_mask:
0.3541 loss_rpn_cls: 0.02539 loss_rpn_loc: 0.193 time: 0.1418
last_time: 0.1211 data_time: 0.0046 last_data_time: 0.0045 lr:
0.00015485 max_mem: 2609M
[08/02 21:43:46 d2.utils.events]: eta: 0:20:48 iter: 639
```

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total_loss: 1.267 loss_cls: 0.2092 loss_box_reg: 0.5122 loss_mask: 0.3522 loss_rpn_cls: 0.02029 loss_rpn_loc: 0.1957 time: 0.1416 last_time: 0.1371 data_time: 0.0050 last_data_time: 0.0047 lr: 0.00015984 max_mem: 2609M [08/02 21:43:49 d2.utils.events]: eta: 0:20:45 iter: 659 total_loss: 1.246 loss_cls: 0.1987 loss_box_reg: 0.5104 loss_mask: 0.3429 loss_rpn_cls: 0.02803 loss_rpn_loc: 0.1878 time: 0.1413 last_time: 0.1323 data_time: 0.0048 last_data_time: 0.0047 lr: 0.00016484 max_mem: 2609M [08/02 21:43:52 d2.utils.events]: eta: 0:20:43 iter: 679 total_loss: 1.353 loss_cls: 0.2078 loss_box_reg: 0.4977 loss_mask: 0.3339 loss_rpn_cls: 0.02609 loss_rpn_loc: 0.2014 time: 0.1411 last_time: 0.1329 data_time: 0.0047 last_data_time: 0.0044 lr: 0.00016983 max_mem: 2609M [08/02 21:43:55 d2.utils.events]: eta: 0:20:42 iter: 699 total_loss: 1.278 loss_cls: 0.2049 loss_box_reg: 0.5115 loss_mask: 0.3449 loss_rpn_cls: 0.01995 loss_rpn_loc: 0.2005 time: 0.1411 last_time: 0.1374 data_time: 0.0049 last_data_time: 0.0047 lr: 0.00017483 max_mem: 2609M [08/02 21:43:57 d2.utils.events]: eta: 0:20:39 iter: 719 total_loss: 1.235 loss_cls: 0.1904 loss_box_reg: 0.4872 loss_mask: 0.3522 loss_rpn_cls: 0.02357 loss_rpn_loc: 0.1898 time: 0.1409 last_time: 0.1306 data_time: 0.0047 last_data_time: 0.0046 lr: 0.00017982 max_mem: 2609M [08/02 21:44:00 d2.utils.events]: eta: 0:20:38 iter: 739 total_loss: 1.259 loss_cls: 0.197 loss_box_reg: 0.4926 loss_mask: 0.3457 loss_rpn_cls: 0.02368 loss_rpn_loc: 0.1928 time: 0.1407 last_time: 0.1369 data_time: 0.0050 last_data_time: 0.0052 lr: 0.00018482 max_mem: 2609M [08/02 21:44:03 d2.utils.events]: eta: 0:20:34 iter: 759 total_loss: 1.277 loss_cls: 0.2076 loss_box_reg: 0.5097 loss_mask: 0.3401 loss_rpn_cls: 0.02188 loss_rpn_loc: 0.1849 time: 0.1405 last_time: 0.1322 data_time: 0.0047 last_data_time: 0.0043 lr: 0.00018981 max_mem: 2609M [08/02 21:44:05 d2.utils.events]: eta: 0:20:30 iter: 779 total_loss: 1.283 loss_cls: 0.2059 loss_box_reg: 0.4982 loss_mask: 0.3423 loss_rpn_cls: 0.01996 loss_rpn_loc: 0.1959 time: 0.1402 last_time: 0.1498 data_time: 0.0046 last_data_time: 0.0049 lr: 0.00019481 max_mem: 2609M [08/02 21:44:08 d2.utils.events]: eta: 0:20:27 iter: 799 total_loss: 1.232 loss_cls: 0.1839 loss_box_reg: 0.4749 loss_mask: 0.3476 loss_rpn_cls: 0.01962 loss_rpn_loc: 0.1836 time: 0.1401 last_time: 0.1362 data_time: 0.0048 last_data_time: 0.0043 lr: 0.0001998 max_mem: 2609M [08/02 21:44:11 d2.utils.events]: eta: 0:20:25 iter: 819 total_loss: 1.227 loss_cls: 0.1819 loss_box_reg: 0.4851 loss_mask: 0.3441 loss_rpn_cls: 0.02586 loss_rpn_loc: 0.1772 time: 0.1399 last_time: 0.1224 data_time: 0.0048 last_data_time: 0.0049 lr: 0.0002048 max_mem: 2609M
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[08/02 21:44:13 d2.utils.events]: eta: 0:20:23 iter: 839
total_loss: 1.222 loss_cls: 0.1958 loss_box_reg: 0.4742 loss_mask:
0.3431 loss_rpn_cls: 0.0249 loss_rpn_loc: 0.1931 time: 0.1398
last_time: 0.1343 data_time: 0.0050 last_data_time: 0.0048 lr:
0.00020979 max_mem: 2609M
[08/02 21:44:16 d2.utils.events]: eta: 0:20:20 iter: 859
total_loss: 1.237 loss_cls: 0.1936 loss_box_reg: 0.4718 loss_mask:
0.3439 loss_rpn_cls: 0.02638 loss_rpn_loc: 0.1864 time: 0.1396
last_time: 0.1384 data_time: 0.0047 last_data_time: 0.0045 lr:
0.00021479 max_mem: 2609M
[08/02 21:44:19 d2.utils.events]: eta: 0:20:18 iter: 879
total_loss: 1.241 loss_cls: 0.1838 loss_box_reg: 0.5003 loss_mask:
0.3428 loss_rpn_cls: 0.0278 loss_rpn_loc: 0.1866 time: 0.1395
last_time: 0.1357 data_time: 0.0046 last_data_time: 0.0042 lr:
0.00021978 max_mem: 2609M
[08/02 21:44:21 d2.utils.events]: eta: 0:20:16 iter: 899
total_loss: 1.178 loss_cls: 0.18 loss_box_reg: 0.4452 loss_mask:
0.3445 loss_rpn_cls: 0.02466 loss_rpn_loc: 0.1751 time: 0.1394
last_time: 0.1347 data_time: 0.0047 last_data_time: 0.0049 lr:
0.00022478 max_mem: 2609M
[08/02 21:44:24 d2.utils.events]: eta: 0:20:14 iter: 919
total_loss: 1.202 loss_cls: 0.1886 loss_box_reg: 0.4541 loss_mask:
0.3385 loss_rpn_cls: 0.02233 loss_rpn_loc: 0.1886 time: 0.1392
last_time: 0.1358 data_time: 0.0047 last_data_time: 0.0051 lr:
0.00022977 max_mem: 2609M
[08/02 21:44:27 d2.utils.events]: eta: 0:20:11 iter: 939
total_loss: 1.187 loss_cls: 0.1726 loss_box_reg: 0.4592 loss_mask:
0.3416 loss_rpn_cls: 0.01941 loss_rpn_loc: 0.1851 time: 0.1391
last_time: 0.1313 data_time: 0.0049 last_data_time: 0.0047 lr:
0.00023477 max_mem: 2609M
[08/02 21:44:29 d2.utils.events]: eta: 0:20:09 iter: 959
total_loss: 1.249 loss_cls: 0.1854 loss_box_reg: 0.4787 loss_mask:
0.337 loss_rpn_cls: 0.02712 loss_rpn_loc: 0.1986 time: 0.1390
last_time: 0.1305 data_time: 0.0047 last_data_time: 0.0045 lr:
0.00023976 max_mem: 2609M
[08/02 21:44:32 d2.utils.events]: eta: 0:20:06 iter: 979
total_loss: 1.2 loss_cls: 0.1854 loss_box_reg: 0.4821 loss_mask:
0.341 loss_rpn_cls: 0.02249 loss_rpn_loc: 0.1757 time: 0.1389
last_time: 0.1415 data_time: 0.0046 last_data_time: 0.0047 lr:
0.00024476 max_mem: 2609M
[08/02 21:44:35 d2.utils.events]: eta: 0:20:04 iter: 999
total_loss: 1.161 loss_cls: 0.1615 loss_box_reg: 0.4527 loss_mask:
0.3396 loss_rpn_cls: 0.02362 loss_rpn_loc: 0.1762 time: 0.1388
last_time: 0.1387 data_time: 0.0050 last_data_time: 0.0048 lr:
0.00024975 max_mem: 2609M
[08/02 21:44:38 d2.utils.events]: eta: 0:20:01 iter: 1019
total_loss: 1.219 loss_cls: 0.1887 loss_box_reg: 0.4562 loss_mask:
0.3404 loss_rpn_cls: 0.02502 loss_rpn_loc: 0.1838 time: 0.1388
last_time: 0.1365 data_time: 0.0050 last_data_time: 0.0045 lr:
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0.00025 max_mem: 2609M
[08/02 21:44:40 d2.utils.events]: eta: 0:19:57 iter: 1039
total_loss: 1.193 loss_cls: 0.1764 loss_box_reg: 0.4723 loss_mask:
0.3424 loss_rpn_cls: 0.02634 loss_rpn_loc: 0.1827 time: 0.1387
last_time: 0.1362 data_time: 0.0051 last_data_time: 0.0048 lr:
0.00025 max_mem: 2609M
[08/02 21:44:43 d2.utils.events]: eta: 0:19:54 iter: 1059
total_loss: 1.14 loss_cls: 0.1775 loss_box_reg: 0.4569 loss_mask:
0.3313 loss_rpn_cls: 0.01586 loss_rpn_loc: 0.1776 time: 0.1386
last_time: 0.1353 data_time: 0.0047 last_data_time: 0.0049 lr:
0.00025 max_mem: 2609M
[08/02 21:44:46 d2.utils.events]: eta: 0:19:49 iter: 1079
total_loss: 1.15 loss_cls: 0.1705 loss_box_reg: 0.4452 loss_mask:
0.33 loss_rpn_cls: 0.02081 loss_rpn_loc: 0.1814 time: 0.1386
last_time: 0.1374 data_time: 0.0052 last_data_time: 0.0044 lr:
0.00025 max_mem: 2609M
[08/02 21:44:48 d2.utils.events]: eta: 0:19:45 iter: 1099
total_loss: 1.142 loss_cls: 0.175 loss_box_reg: 0.4381 loss_mask:
0.3262 loss_rpn_cls: 0.02459 loss_rpn_loc: 0.1855 time: 0.1384
last_time: 0.1347 data_time: 0.0047 last_data_time: 0.0044 lr:
0.00025 max_mem: 2609M
[08/02 21:44:51 d2.utils.events]: eta: 0:19:41 iter: 1119
total_loss: 1.144 loss_cls: 0.1632 loss_box_reg: 0.4526 loss_mask:
0.3352 loss_rpn_cls: 0.0244 loss_rpn_loc: 0.179 time: 0.1383
last_time: 0.1449 data_time: 0.0047 last_data_time: 0.0047 lr:
0.00025 max_mem: 2609M
[08/02 21:44:54 d2.utils.events]: eta: 0:19:39 iter: 1139
total_loss: 1.146 loss_cls: 0.1758 loss_box_reg: 0.4639 loss_mask:
0.3271 loss_rpn_cls: 0.0201 loss_rpn_loc: 0.165 time: 0.1382
last_time: 0.1344 data_time: 0.0046 last_data_time: 0.0045 lr:
0.00025 max_mem: 2609M
[08/02 21:44:56 d2.utils.events]: eta: 0:19:36 iter: 1159
total_loss: 1.121 loss_cls: 0.1648 loss_box_reg: 0.429 loss_mask:
0.3431 loss_rpn_cls: 0.02233 loss_rpn_loc: 0.1755 time: 0.1381
last_time: 0.1325 data_time: 0.0046 last_data_time: 0.0045 lr:
0.00025 max_mem: 2609M
[08/02 21:44:59 d2.utils.events]: eta: 0:19:33 iter: 1179
total_loss: 1.158 loss_cls: 0.1786 loss_box_reg: 0.4264 loss_mask:
0.3283 loss_rpn_cls: 0.03043 loss_rpn_loc: 0.182 time: 0.1380
last_time: 0.1340 data_time: 0.0046 last_data_time: 0.0048 lr:
0.00025 max_mem: 2609M
[08/02 21:45:02 d2.utils.events]: eta: 0:19:32 iter: 1199
total_loss: 1.124 loss_cls: 0.1556 loss_box_reg: 0.4304 loss_mask:
0.3364 loss_rpn_cls: 0.01852 loss_rpn_loc: 0.1737 time: 0.1379
last_time: 0.1320 data_time: 0.0046 last_data_time: 0.0044 lr:
0.00025 max_mem: 2609M
[08/02 21:45:04 d2.utils.events]: eta: 0:19:29 iter: 1219
total_loss: 1.158 loss_cls: 0.1651 loss_box_reg: 0.4392 loss_mask:
0.3295 loss_rpn_cls: 0.0233 loss_rpn_loc: 0.1819 time: 0.1379
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last_time: 0.1259 data_time: 0.0047 last_data_time: 0.0044 lr:  
0.00025 max_mem: 2609M  
[08/02 21:45:07 d2.utils.events]: eta: 0:19:28 iter: 1239  
total_loss: 1.121 loss_cls: 0.1717 loss_box_reg: 0.4233 loss_mask:  
0.3306 loss_rpn_cls: 0.02419 loss_rpn_loc: 0.163 time: 0.1379  
last_time: 0.1215 data_time: 0.0046 last_data_time: 0.0045 lr:  
0.00025 max_mem: 2609M  
[08/02 21:45:10 d2.utils.events]: eta: 0:19:25 iter: 1259  
total_loss: 1.134 loss_cls: 0.1595 loss_box_reg: 0.4329 loss_mask:  
0.3336 loss_rpn_cls: 0.01735 loss_rpn_loc: 0.1777 time: 0.1378  
last_time: 0.1343 data_time: 0.0045 last_data_time: 0.0043 lr:  
0.00025 max_mem: 2609M  
[08/02 21:45:12 d2.utils.events]: eta: 0:19:24 iter: 1279  
total_loss: 1.143 loss_cls: 0.1611 loss_box_reg: 0.4511 loss_mask:  
0.3332 loss_rpn_cls: 0.02026 loss_rpn_loc: 0.1768 time: 0.1377  
last_time: 0.1467 data_time: 0.0053 last_data_time: 0.0054 lr:  
0.00025 max_mem: 2609M  
[08/02 21:45:15 d2.utils.events]: eta: 0:19:21 iter: 1299  
total_loss: 1.115 loss_cls: 0.1564 loss_box_reg: 0.438 loss_mask:  
0.3338 loss_rpn_cls: 0.02437 loss_rpn_loc: 0.1838 time: 0.1377  
last_time: 0.1372 data_time: 0.0050 last_data_time: 0.0043 lr:  
0.00025 max_mem: 2609M  
[08/02 21:45:18 d2.utils.events]: eta: 0:19:19 iter: 1319  
total_loss: 1.098 loss_cls: 0.1632 loss_box_reg: 0.4279 loss_mask:  
0.3343 loss_rpn_cls: 0.0227 loss_rpn_loc: 0.179 time: 0.1376  
last_time: 0.1532 data_time: 0.0048 last_data_time: 0.0048 lr:  
0.00025 max_mem: 2609M  
[08/02 21:45:20 d2.utils.events]: eta: 0:19:16 iter: 1339  
total_loss: 1.201 loss_cls: 0.1703 loss_box_reg: 0.4595 loss_mask:  
0.3383 loss_rpn_cls: 0.02012 loss_rpn_loc: 0.1798 time: 0.1375  
last_time: 0.1289 data_time: 0.0049 last_data_time: 0.0049 lr:  
0.00025 max_mem: 2609M  
[08/02 21:45:23 d2.utils.events]: eta: 0:19:14 iter: 1359  
total_loss: 1.121 loss_cls: 0.1693 loss_box_reg: 0.4452 loss_mask:  
0.3294 loss_rpn_cls: 0.01699 loss_rpn_loc: 0.1709 time: 0.1374  
last_time: 0.1371 data_time: 0.0047 last_data_time: 0.0044 lr:  
0.00025 max_mem: 2609M  
[08/02 21:45:26 d2.utils.events]: eta: 0:19:11 iter: 1379  
total_loss: 1.128 loss_cls: 0.1585 loss_box_reg: 0.4237 loss_mask:  
0.3281 loss_rpn_cls: 0.01919 loss_rpn_loc: 0.1687 time: 0.1374  
last_time: 0.1346 data_time: 0.0046 last_data_time: 0.0043 lr:  
0.00025 max_mem: 2609M  
[08/02 21:45:29 d2.utils.events]: eta: 0:19:08 iter: 1399  
total_loss: 1.126 loss_cls: 0.1678 loss_box_reg: 0.4417 loss_mask:  
0.3354 loss_rpn_cls: 0.02208 loss_rpn_loc: 0.1607 time: 0.1373  
last_time: 0.1378 data_time: 0.0046 last_data_time: 0.0046 lr:  
0.00025 max_mem: 2609M  
[08/02 21:45:31 d2.utils.events]: eta: 0:19:07 iter: 1419  
total_loss: 1.066 loss_cls: 0.1544 loss_box_reg: 0.4101 loss_mask:
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0.3289 loss_rpn_cls: 0.0218 loss_rpn_loc: 0.1714 time: 0.1372
last_time: 0.1288 data_time: 0.0053 last_data_time: 0.0044 lr:
0.00025 max_mem: 2610M
[08/02 21:45:34 d2.utils.events]: eta: 0:19:04 iter: 1439
total_loss: 1.121 loss_cls: 0.1611 loss_box_reg: 0.4525 loss_mask:
0.3204 loss_rpn_cls: 0.02112 loss_rpn_loc: 0.1752 time: 0.1371
last_time: 0.1280 data_time: 0.0044 last_data_time: 0.0042 lr:
0.00025 max_mem: 2610M
[08/02 21:45:36 d2.utils.events]: eta: 0:19:00 iter: 1459
total_loss: 1.129 loss_cls: 0.1597 loss_box_reg: 0.4311 loss_mask:
0.3426 loss_rpn_cls: 0.01729 loss_rpn_loc: 0.1671 time: 0.1370
last_time: 0.1263 data_time: 0.0043 last_data_time: 0.0043 lr:
0.00025 max_mem: 2610M
[08/02 21:45:39 d2.utils.events]: eta: 0:18:57 iter: 1479
total_loss: 1.128 loss_cls: 0.1587 loss_box_reg: 0.4167 loss_mask:
0.3262 loss_rpn_cls: 0.02558 loss_rpn_loc: 0.1658 time: 0.1369
last_time: 0.1362 data_time: 0.0045 last_data_time: 0.0047 lr:
0.00025 max_mem: 2610M
[08/02 21:45:42 d2.utils.events]: eta: 0:18:54 iter: 1499
total_loss: 1.119 loss_cls: 0.1547 loss_box_reg: 0.4379 loss_mask:
0.3235 loss_rpn_cls: 0.01412 loss_rpn_loc: 0.1681 time: 0.1369
last_time: 0.1337 data_time: 0.0044 last_data_time: 0.0048 lr:
0.00025 max_mem: 2610M
[08/02 21:45:44 d2.utils.events]: eta: 0:18:51 iter: 1519
total_loss: 1.081 loss_cls: 0.1543 loss_box_reg: 0.4126 loss_mask:
0.3192 loss_rpn_cls: 0.0173 loss_rpn_loc: 0.1624 time: 0.1368
last_time: 0.1348 data_time: 0.0049 last_data_time: 0.0048 lr:
0.00025 max_mem: 2610M
[08/02 21:45:47 d2.utils.events]: eta: 0:18:50 iter: 1539
total_loss: 1.105 loss_cls: 0.154 loss_box_reg: 0.4255 loss_mask:
0.3235 loss_rpn_cls: 0.02462 loss_rpn_loc: 0.166 time: 0.1367
last_time: 0.1287 data_time: 0.0047 last_data_time: 0.0044 lr:
0.00025 max_mem: 2610M
[08/02 21:45:50 d2.utils.events]: eta: 0:18:47 iter: 1559
total_loss: 1.122 loss_cls: 0.1631 loss_box_reg: 0.44 loss_mask:
0.3282 loss_rpn_cls: 0.02219 loss_rpn_loc: 0.1686 time: 0.1367
last_time: 0.1314 data_time: 0.0047 last_data_time: 0.0048 lr:
0.00025 max_mem: 2610M
[08/02 21:45:52 d2.utils.events]: eta: 0:18:44 iter: 1579
total_loss: 1.038 loss_cls: 0.1476 loss_box_reg: 0.4122 loss_mask:
0.3122 loss_rpn_cls: 0.01972 loss_rpn_loc: 0.1774 time: 0.1366
last_time: 0.1287 data_time: 0.0048 last_data_time: 0.0054 lr:
0.00025 max_mem: 2610M
[08/02 21:45:55 d2.utils.events]: eta: 0:18:42 iter: 1599
total_loss: 1.095 loss_cls: 0.1441 loss_box_reg: 0.442 loss_mask:
0.328 loss_rpn_cls: 0.0245 loss_rpn_loc: 0.1537 time: 0.1366
last_time: 0.1389 data_time: 0.0050 last_data_time: 0.0049 lr:
0.00025 max_mem: 2610M
[08/02 21:45:58 d2.utils.events]: eta: 0:18:40 iter: 1619
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total_loss: 1.098 loss_cls: 0.1523 loss_box_reg: 0.4325 loss_mask: 0.322 loss_rpn_cls: 0.01724 loss_rpn_loc: 0.17 time: 0.1366 last_time: 0.1294 data_time: 0.0051 last_data_time: 0.0049 lr: 0.00025 max_mem: 2610M [08/02 21:46:00 d2.utils.events]: eta: 0:18:37 iter: 1639 total_loss: 1.103 loss_cls: 0.1504 loss_box_reg: 0.4112 loss_mask: 0.3175 loss_rpn_cls: 0.02052 loss_rpn_loc: 0.1606 time: 0.1365 last_time: 0.1342 data_time: 0.0048 last_data_time: 0.0045 lr: 0.00025 max_mem: 2610M [08/02 21:46:03 d2.utils.events]: eta: 0:18:34 iter: 1659 total_loss: 1.111 loss_cls: 0.1481 loss_box_reg: 0.4137 loss_mask: 0.3193 loss_rpn_cls: 0.01762 loss_rpn_loc: 0.1734 time: 0.1365 last_time: 0.1366 data_time: 0.0048 last_data_time: 0.0046 lr: 0.00025 max_mem: 2610M [08/02 21:46:06 d2.utils.events]: eta: 0:18:31 iter: 1679 total_loss: 1.078 loss_cls: 0.1475 loss_box_reg: 0.4234 loss_mask: 0.3246 loss_rpn_cls: 0.02247 loss_rpn_loc: 0.1695 time: 0.1364 last_time: 0.1299 data_time: 0.0046 last_data_time: 0.0041 lr: 0.00025 max_mem: 2610M [08/02 21:46:08 d2.utils.events]: eta: 0:18:28 iter: 1699 total_loss: 1.067 loss_cls: 0.1518 loss_box_reg: 0.4153 loss_mask: 0.3275 loss_rpn_cls: 0.0158 loss_rpn_loc: 0.156 time: 0.1363 last_time: 0.1350 data_time: 0.0047 last_data_time: 0.0044 lr: 0.00025 max_mem: 2610M [08/02 21:46:11 d2.utils.events]: eta: 0:18:26 iter: 1719 total_loss: 1.023 loss_cls: 0.1396 loss_box_reg: 0.4074 loss_mask: 0.3194 loss_rpn_cls: 0.01699 loss_rpn_loc: 0.1476 time: 0.1363 last_time: 0.1270 data_time: 0.0044 last_data_time: 0.0050 lr: 0.00025 max_mem: 2610M [08/02 21:46:14 d2.utils.events]: eta: 0:18:22 iter: 1739 total_loss: 1.085 loss_cls: 0.1411 loss_box_reg: 0.4132 loss_mask: 0.3197 loss_rpn_cls: 0.02263 loss_rpn_loc: 0.167 time: 0.1363 last_time: 0.1334 data_time: 0.0044 last_data_time: 0.0046 lr: 0.00025 max_mem: 2610M [08/02 21:46:16 d2.utils.events]: eta: 0:18:20 iter: 1759 total_loss: 1.051 loss_cls: 0.1382 loss_box_reg: 0.4174 loss_mask: 0.3203 loss_rpn_cls: 0.0162 loss_rpn_loc: 0.1452 time: 0.1362 last_time: 0.1353 data_time: 0.0045 last_data_time: 0.0051 lr: 0.00025 max_mem: 2610M [08/02 21:46:19 d2.utils.events]: eta: 0:18:18 iter: 1779 total_loss: 1.076 loss_cls: 0.1412 loss_box_reg: 0.4083 loss_mask: 0.3027 loss_rpn_cls: 0.01685 loss_rpn_loc: 0.1586 time: 0.1362 last_time: 0.1395 data_time: 0.0046 last_data_time: 0.0048 lr: 0.00025 max_mem: 2610M [08/02 21:46:22 d2.utils.events]: eta: 0:18:15 iter: 1799 total_loss: 1.078 loss_cls: 0.1447 loss_box_reg: 0.4053 loss_mask: 0.3293 loss_rpn_cls: 0.01856 loss_rpn_loc: 0.16 time: 0.1362 last_time: 0.1340 data_time: 0.0046 last_data_time: 0.0042 lr: 0.00025 max_mem: 2610M
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[08/02 21:46:24 d2.utils.events]: eta: 0:18:13 iter: 1819
total_loss: 1.036 loss_cls: 0.1394 loss_box_reg: 0.4156 loss_mask:
0.3192 loss_rpn_cls: 0.02197 loss_rpn_loc: 0.1589 time: 0.1361
last_time: 0.1349 data_time: 0.0045 last_data_time: 0.0044 lr:
0.00025 max_mem: 2610M
[08/02 21:46:27 d2.utils.events]: eta: 0:18:09 iter: 1839
total_loss: 1.046 loss_cls: 0.1494 loss_box_reg: 0.4099 loss_mask:
0.3271 loss_rpn_cls: 0.02036 loss_rpn_loc: 0.1591 time: 0.1361
last_time: 0.1291 data_time: 0.0044 last_data_time: 0.0043 lr:
0.00025 max_mem: 2610M
[08/02 21:46:30 d2.utils.events]: eta: 0:18:07 iter: 1859
total_loss: 1.046 loss_cls: 0.1469 loss_box_reg: 0.4105 loss_mask:
0.3227 loss_rpn_cls: 0.01779 loss_rpn_loc: 0.1606 time: 0.1361
last_time: 0.1294 data_time: 0.0047 last_data_time: 0.0052 lr:
0.00025 max_mem: 2610M
[08/02 21:46:32 d2.utils.events]: eta: 0:18:04 iter: 1879
total_loss: 1.077 loss_cls: 0.1427 loss_box_reg: 0.4326 loss_mask:
0.3252 loss_rpn_cls: 0.01965 loss_rpn_loc: 0.1695 time: 0.1360
last_time: 0.1400 data_time: 0.0047 last_data_time: 0.0050 lr:
0.00025 max_mem: 2610M
[08/02 21:46:35 d2.utils.events]: eta: 0:18:01 iter: 1899
total_loss: 1.05 loss_cls: 0.1442 loss_box_reg: 0.3993 loss_mask:
0.3117 loss_rpn_cls: 0.01759 loss_rpn_loc: 0.1494 time: 0.1360
last_time: 0.1267 data_time: 0.0046 last_data_time: 0.0051 lr:
0.00025 max_mem: 2610M
[08/02 21:46:38 d2.utils.events]: eta: 0:17:58 iter: 1919
total_loss: 1.098 loss_cls: 0.144 loss_box_reg: 0.4231 loss_mask:
0.3193 loss_rpn_cls: 0.01711 loss_rpn_loc: 0.1673 time: 0.1360
last_time: 0.1238 data_time: 0.0045 last_data_time: 0.0044 lr:
0.00025 max_mem: 2610M
[08/02 21:46:40 d2.utils.events]: eta: 0:17:55 iter: 1939
total_loss: 1.047 loss_cls: 0.1377 loss_box_reg: 0.4185 loss_mask:
0.3208 loss_rpn_cls: 0.01411 loss_rpn_loc: 0.1626 time: 0.1359
last_time: 0.1326 data_time: 0.0044 last_data_time: 0.0043 lr:
0.00025 max_mem: 2610M
[08/02 21:46:43 d2.utils.events]: eta: 0:17:52 iter: 1959
total_loss: 1.055 loss_cls: 0.1375 loss_box_reg: 0.3968 loss_mask:
0.3137 loss_rpn_cls: 0.02003 loss_rpn_loc: 0.1627 time: 0.1359
last_time: 0.1331 data_time: 0.0044 last_data_time: 0.0043 lr:
0.00025 max_mem: 2610M
[08/02 21:46:46 d2.utils.events]: eta: 0:17:49 iter: 1979
total_loss: 1.048 loss_cls: 0.138 loss_box_reg: 0.4131 loss_mask:
0.3141 loss_rpn_cls: 0.01643 loss_rpn_loc: 0.144 time: 0.1358
last_time: 0.1359 data_time: 0.0048 last_data_time: 0.0052 lr:
0.00025 max_mem: 2610M
[08/02 21:46:48 d2.utils.events]: eta: 0:17:46 iter: 1999
total_loss: 1.065 loss_cls: 0.1364 loss_box_reg: 0.4041 loss_mask:
0.3187 loss_rpn_cls: 0.01895 loss_rpn_loc: 0.1634 time: 0.1358
last_time: 0.1315 data_time: 0.0051 last_data_time: 0.0052 lr:
0.00025 max_mem: 2610M
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[08/02 21:46:51 d2.utils.events]: eta: 0:17:43 iter: 2019
total_loss: 1.054 loss_cls: 0.1426 loss_box_reg: 0.4172 loss_mask:
0.3196 loss_rpn_cls: 0.01678 loss_rpn_loc: 0.1521 time: 0.1359
last_time: 0.1472 data_time: 0.0049 last_data_time: 0.0063 lr:
0.00025 max_mem: 2610M
[08/02 21:46:54 d2.utils.events]: eta: 0:17:40 iter: 2039
total_loss: 0.997 loss_cls: 0.1308 loss_box_reg: 0.3882 loss_mask:
0.3126 loss_rpn_cls: 0.0143 loss_rpn_loc: 0.1487 time: 0.1358
last_time: 0.1283 data_time: 0.0047 last_data_time: 0.0043 lr:
0.00025 max_mem: 2610M
[08/02 21:46:56 d2.utils.events]: eta: 0:17:36 iter: 2059
total_loss: 1.024 loss_cls: 0.1409 loss_box_reg: 0.4047 loss_mask:
0.3194 loss_rpn_cls: 0.01972 loss_rpn_loc: 0.1627 time: 0.1358
last_time: 0.1288 data_time: 0.0044 last_data_time: 0.0042 lr:
0.00025 max_mem: 2610M
[08/02 21:46:59 d2.utils.events]: eta: 0:17:34 iter: 2079
total_loss: 1.038 loss_cls: 0.1339 loss_box_reg: 0.4058 loss_mask:
0.3152 loss_rpn_cls: 0.01411 loss_rpn_loc: 0.1557 time: 0.1358
last_time: 0.1347 data_time: 0.0050 last_data_time: 0.0045 lr:
0.00025 max_mem: 2610M
[08/02 21:47:02 d2.utils.events]: eta: 0:17:32 iter: 2099
total_loss: 1.031 loss_cls: 0.1365 loss_box_reg: 0.4125 loss_mask:
0.3072 loss_rpn_cls: 0.01934 loss_rpn_loc: 0.1554 time: 0.1357
last_time: 0.1322 data_time: 0.0045 last_data_time: 0.0044 lr:
0.00025 max_mem: 2610M
[08/02 21:47:04 d2.utils.events]: eta: 0:17:30 iter: 2119
total_loss: 1.002 loss_cls: 0.1295 loss_box_reg: 0.3913 loss_mask:
0.3132 loss_rpn_cls: 0.01267 loss_rpn_loc: 0.1556 time: 0.1357
last_time: 0.1382 data_time: 0.0047 last_data_time: 0.0046 lr:
0.00025 max_mem: 2610M
[08/02 21:47:07 d2.utils.events]: eta: 0:17:27 iter: 2139
total_loss: 1.02 loss_cls: 0.139 loss_box_reg: 0.4045 loss_mask:
0.3186 loss_rpn_cls: 0.01791 loss_rpn_loc: 0.142 time: 0.1357
last_time: 0.1458 data_time: 0.0046 last_data_time: 0.0043 lr:
0.00025 max_mem: 2610M
[08/02 21:47:10 d2.utils.events]: eta: 0:17:24 iter: 2159
total_loss: 1.039 loss_cls: 0.1237 loss_box_reg: 0.4139 loss_mask:
0.3172 loss_rpn_cls: 0.01654 loss_rpn_loc: 0.1437 time: 0.1357
last_time: 0.1231 data_time: 0.0047 last_data_time: 0.0044 lr:
0.00025 max_mem: 2610M
[08/02 21:47:13 d2.utils.events]: eta: 0:17:22 iter: 2179
total_loss: 1.011 loss_cls: 0.1343 loss_box_reg: 0.3995 loss_mask:
0.3043 loss_rpn_cls: 0.01614 loss_rpn_loc: 0.1533 time: 0.1357
last_time: 0.1274 data_time: 0.0048 last_data_time: 0.0045 lr:
0.00025 max_mem: 2610M
[08/02 21:47:15 d2.utils.events]: eta: 0:17:20 iter: 2199
total_loss: 1.018 loss_cls: 0.1325 loss_box_reg: 0.3901 loss_mask:
0.3122 loss_rpn_cls: 0.01736 loss_rpn_loc: 0.1513 time: 0.1357
last_time: 0.1358 data_time: 0.0047 last_data_time: 0.0049 lr:
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0.00025 max_mem: 2610M
[08/02 21:47:18 d2.utils.events]: eta: 0:17:17 iter: 2219
total_loss: 0.9889 loss_cls: 0.1343 loss_box_reg: 0.392 loss_mask:
0.312 loss_rpn_cls: 0.01379 loss_rpn_loc: 0.1403 time: 0.1356
last_time: 0.1388 data_time: 0.0047 last_data_time: 0.0043 lr:
0.00025 max_mem: 2610M
[08/02 21:47:21 d2.utils.events]: eta: 0:17:14 iter: 2239
total_loss: 1.064 loss_cls: 0.1345 loss_box_reg: 0.4114 loss_mask:
0.3266 loss_rpn_cls: 0.01643 loss_rpn_loc: 0.163 time: 0.1356
last_time: 0.1186 data_time: 0.0046 last_data_time: 0.0044 lr:
0.00025 max_mem: 2610M
[08/02 21:47:23 d2.utils.events]: eta: 0:17:12 iter: 2259
total_loss: 0.9944 loss_cls: 0.1262 loss_box_reg: 0.3816 loss_mask:
0.3146 loss_rpn_cls: 0.01781 loss_rpn_loc: 0.1487 time: 0.1356
last_time: 0.1343 data_time: 0.0049 last_data_time: 0.0044 lr:
0.00025 max_mem: 2610M
[08/02 21:47:26 d2.utils.events]: eta: 0:17:09 iter: 2279
total_loss: 0.9275 loss_cls: 0.1179 loss_box_reg: 0.3853 loss_mask:
0.3089 loss_rpn_cls: 0.01457 loss_rpn_loc: 0.1431 time: 0.1356
last_time: 0.1352 data_time: 0.0046 last_data_time: 0.0047 lr:
0.00025 max_mem: 2610M
[08/02 21:47:29 d2.utils.events]: eta: 0:17:06 iter: 2299
total_loss: 0.9667 loss_cls: 0.1219 loss_box_reg: 0.3893 loss_mask:
0.3058 loss_rpn_cls: 0.01378 loss_rpn_loc: 0.1356 time: 0.1356
last_time: 0.1331 data_time: 0.0047 last_data_time: 0.0050 lr:
0.00025 max_mem: 2610M
[08/02 21:47:31 d2.utils.events]: eta: 0:17:03 iter: 2319
total_loss: 1.016 loss_cls: 0.1306 loss_box_reg: 0.399 loss_mask:
0.3132 loss_rpn_cls: 0.01344 loss_rpn_loc: 0.1534 time: 0.1355
last_time: 0.1252 data_time: 0.0049 last_data_time: 0.0047 lr:
0.00025 max_mem: 2610M
[08/02 21:47:34 d2.utils.events]: eta: 0:17:00 iter: 2339
total_loss: 1.008 loss_cls: 0.1254 loss_box_reg: 0.4009 loss_mask:
0.3201 loss_rpn_cls: 0.01721 loss_rpn_loc: 0.1512 time: 0.1355
last_time: 0.1388 data_time: 0.0055 last_data_time: 0.0050 lr:
0.00025 max_mem: 2610M
[08/02 21:47:37 d2.utils.events]: eta: 0:16:58 iter: 2359
total_loss: 0.9488 loss_cls: 0.1167 loss_box_reg: 0.3805 loss_mask:
0.2963 loss_rpn_cls: 0.0173 loss_rpn_loc: 0.1368 time: 0.1355
last_time: 0.1371 data_time: 0.0050 last_data_time: 0.0044 lr:
0.00025 max_mem: 2610M
[08/02 21:47:39 d2.utils.events]: eta: 0:16:56 iter: 2379
total_loss: 0.9409 loss_cls: 0.1193 loss_box_reg: 0.3809 loss_mask:
0.2969 loss_rpn_cls: 0.0172 loss_rpn_loc: 0.1349 time: 0.1355
last_time: 0.1339 data_time: 0.0045 last_data_time: 0.0043 lr:
0.00025 max_mem: 2610M
[08/02 21:47:42 d2.utils.events]: eta: 0:16:53 iter: 2399
total_loss: 0.9646 loss_cls: 0.1162 loss_box_reg: 0.3689 loss_mask:
0.3174 loss_rpn_cls: 0.02159 loss_rpn_loc: 0.1479 time: 0.1354
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last_time: 0.1566 data_time: 0.0046 last_data_time: 0.0045 lr:  
0.00025 max_mem: 2610M  
[08/02 21:47:45 d2.utils.events]: eta: 0:16:50 iter: 2419  
total_loss: 0.9694 loss_cls: 0.1209 loss_box_reg: 0.3911 loss_mask:  
0.3027 loss_rpn_cls: 0.01307 loss_rpn_loc: 0.138 time: 0.1354  
last_time: 0.1331 data_time: 0.0048 last_data_time: 0.0045 lr:  
0.00025 max_mem: 2610M  
[08/02 21:47:47 d2.utils.events]: eta: 0:16:48 iter: 2439  
total_loss: 0.9586 loss_cls: 0.1252 loss_box_reg: 0.3746 loss_mask:  
0.3068 loss_rpn_cls: 0.01409 loss_rpn_loc: 0.1419 time: 0.1354  
last_time: 0.1299 data_time: 0.0046 last_data_time: 0.0049 lr:  
0.00025 max_mem: 2610M  
[08/02 21:47:50 d2.utils.events]: eta: 0:16:46 iter: 2459  
total_loss: 0.9908 loss_cls: 0.1158 loss_box_reg: 0.3878 loss_mask:  
0.3082 loss_rpn_cls: 0.01096 loss_rpn_loc: 0.1446 time: 0.1354  
last_time: 0.1330 data_time: 0.0047 last_data_time: 0.0044 lr:  
0.00025 max_mem: 2610M  
[08/02 21:47:53 d2.utils.events]: eta: 0:16:43 iter: 2479  
total_loss: 0.989 loss_cls: 0.1187 loss_box_reg: 0.3872 loss_mask:  
0.3145 loss_rpn_cls: 0.01922 loss_rpn_loc: 0.142 time: 0.1354  
last_time: 0.1360 data_time: 0.0045 last_data_time: 0.0045 lr:  
0.00025 max_mem: 2610M  
[08/02 21:47:55 d2.utils.events]: eta: 0:16:41 iter: 2499  
total_loss: 0.9568 loss_cls: 0.1181 loss_box_reg: 0.374 loss_mask:  
0.303 loss_rpn_cls: 0.01848 loss_rpn_loc: 0.1463 time: 0.1354  
last_time: 0.1397 data_time: 0.0047 last_data_time: 0.0097 lr:  
0.00025 max_mem: 2610M  
[08/02 21:47:58 d2.utils.events]: eta: 0:16:38 iter: 2519  
total_loss: 0.9627 loss_cls: 0.1171 loss_box_reg: 0.3947 loss_mask:  
0.3082 loss_rpn_cls: 0.01247 loss_rpn_loc: 0.1419 time: 0.1353  
last_time: 0.1217 data_time: 0.0050 last_data_time: 0.0051 lr:  
0.00025 max_mem: 2610M  
[08/02 21:48:01 d2.utils.events]: eta: 0:16:35 iter: 2539  
total_loss: 0.9453 loss_cls: 0.1176 loss_box_reg: 0.3551 loss_mask:  
0.3053 loss_rpn_cls: 0.01824 loss_rpn_loc: 0.1302 time: 0.1353  
last_time: 0.1300 data_time: 0.0052 last_data_time: 0.0054 lr:  
0.00025 max_mem: 2610M  
[08/02 21:48:04 d2.utils.events]: eta: 0:16:33 iter: 2559  
total_loss: 0.9428 loss_cls: 0.1161 loss_box_reg: 0.373 loss_mask:  
0.2973 loss_rpn_cls: 0.01605 loss_rpn_loc: 0.1357 time: 0.1354  
last_time: 0.1347 data_time: 0.0046 last_data_time: 0.0047 lr:  
0.00025 max_mem: 2610M  
[08/02 21:48:06 d2.utils.events]: eta: 0:16:30 iter: 2579  
total_loss: 0.9414 loss_cls: 0.1174 loss_box_reg: 0.3707 loss_mask:  
0.2912 loss_rpn_cls: 0.01354 loss_rpn_loc: 0.1356 time: 0.1354  
last_time: 0.1354 data_time: 0.0046 last_data_time: 0.0045 lr:  
0.00025 max_mem: 2610M  
[08/02 21:48:09 d2.utils.events]: eta: 0:16:27 iter: 2599  
total_loss: 0.9286 loss_cls: 0.119 loss_box_reg: 0.3567 loss_mask:
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0.3 loss_rpn_cls: 0.01422 loss_rpn_loc: 0.1347 time: 0.1353
last_time: 0.1201 data_time: 0.0046 last_data_time: 0.0043 lr:
0.00025 max_mem: 2610M
[08/02 21:48:12 d2.utils.events]: eta: 0:16:25 iter: 2619
total_loss: 0.9486 loss_cls: 0.1145 loss_box_reg: 0.3738 loss_mask:
0.2995 loss_rpn_cls: 0.0154 loss_rpn_loc: 0.1305 time: 0.1353
last_time: 0.1306 data_time: 0.0046 last_data_time: 0.0046 lr:
0.00025 max_mem: 2610M
[08/02 21:48:14 d2.utils.events]: eta: 0:16:23 iter: 2639
total_loss: 0.933 loss_cls: 0.1081 loss_box_reg: 0.3718 loss_mask:
0.2858 loss_rpn_cls: 0.02111 loss_rpn_loc: 0.1345 time: 0.1353
last_time: 0.1376 data_time: 0.0048 last_data_time: 0.0043 lr:
0.00025 max_mem: 2610M
[08/02 21:48:17 d2.utils.events]: eta: 0:16:21 iter: 2659
total_loss: 0.9859 loss_cls: 0.1217 loss_box_reg: 0.3819 loss_mask:
0.3102 loss_rpn_cls: 0.01372 loss_rpn_loc: 0.1349 time: 0.1353
last_time: 0.1365 data_time: 0.0050 last_data_time: 0.0052 lr:
0.00025 max_mem: 2610M
[08/02 21:48:20 d2.utils.events]: eta: 0:16:18 iter: 2679
total_loss: 0.9086 loss_cls: 0.1005 loss_box_reg: 0.3614 loss_mask:
0.3013 loss_rpn_cls: 0.01457 loss_rpn_loc: 0.1274 time: 0.1353
last_time: 0.1265 data_time: 0.0051 last_data_time: 0.0047 lr:
0.00025 max_mem: 2610M
[08/02 21:48:22 d2.utils.events]: eta: 0:16:16 iter: 2699
total_loss: 0.9245 loss_cls: 0.1141 loss_box_reg: 0.3778 loss_mask:
0.3046 loss_rpn_cls: 0.01595 loss_rpn_loc: 0.1325 time: 0.1353
last_time: 0.1389 data_time: 0.0047 last_data_time: 0.0048 lr:
0.00025 max_mem: 2610M
[08/02 21:48:25 d2.utils.events]: eta: 0:16:13 iter: 2719
total_loss: 0.9422 loss_cls: 0.1145 loss_box_reg: 0.3605 loss_mask:
0.299 loss_rpn_cls: 0.01499 loss_rpn_loc: 0.1404 time: 0.1353
last_time: 0.1305 data_time: 0.0048 last_data_time: 0.0045 lr:
0.00025 max_mem: 2610M
[08/02 21:48:28 d2.utils.events]: eta: 0:16:11 iter: 2739
total_loss: 0.9256 loss_cls: 0.1121 loss_box_reg: 0.3471 loss_mask:
0.2997 loss_rpn_cls: 0.01779 loss_rpn_loc: 0.1242 time: 0.1353
last_time: 0.1358 data_time: 0.0052 last_data_time: 0.0052 lr:
0.00025 max_mem: 2610M
[08/02 21:48:30 d2.utils.events]: eta: 0:16:08 iter: 2759
total_loss: 0.9337 loss_cls: 0.1067 loss_box_reg: 0.3618 loss_mask:
0.3009 loss_rpn_cls: 0.01311 loss_rpn_loc: 0.124 time: 0.1353
last_time: 0.1365 data_time: 0.0054 last_data_time: 0.0047 lr:
0.00025 max_mem: 2610M
[08/02 21:48:33 d2.utils.events]: eta: 0:16:05 iter: 2779
total_loss: 0.9539 loss_cls: 0.1098 loss_box_reg: 0.3663 loss_mask:
0.3003 loss_rpn_cls: 0.01732 loss_rpn_loc: 0.1424 time: 0.1353
last_time: 0.1407 data_time: 0.0056 last_data_time: 0.0048 lr:
0.00025 max_mem: 2610M
[08/02 21:48:36 d2.utils.events]: eta: 0:16:03 iter: 2799
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total_loss: 0.9441 loss_cls: 0.1192 loss_box_reg: 0.3835 loss_mask: 0.2996 loss_rpn_cls: 0.0126 loss_rpn_loc: 0.1334 time: 0.1353 last_time: 0.1210 data_time: 0.0049 last_data_time: 0.0045 lr: 0.00025 max_mem: 2610M [08/02 21:48:39 d2.utils.events]: eta: 0:16:00 iter: 2819 total_loss: 0.9186 loss_cls: 0.1182 loss_box_reg: 0.3504 loss_mask: 0.2971 loss_rpn_cls: 0.01521 loss_rpn_loc: 0.1368 time: 0.1353 last_time: 0.1339 data_time: 0.0045 last_data_time: 0.0044 lr: 0.00025 max_mem: 2610M [08/02 21:48:41 d2.utils.events]: eta: 0:15:58 iter: 2839 total_loss: 0.9535 loss_cls: 0.1128 loss_box_reg: 0.3593 loss_mask: 0.3017 loss_rpn_cls: 0.01317 loss_rpn_loc: 0.1322 time: 0.1352 last_time: 0.1352 data_time: 0.0047 last_data_time: 0.0042 lr: 0.00025 max_mem: 2610M [08/02 21:48:44 d2.utils.events]: eta: 0:15:55 iter: 2859 total_loss: 0.8949 loss_cls: 0.1074 loss_box_reg: 0.3389 loss_mask: 0.3007 loss_rpn_cls: 0.01577 loss_rpn_loc: 0.131 time: 0.1352 last_time: 0.1358 data_time: 0.0044 last_data_time: 0.0042 lr: 0.00025 max_mem: 2610M [08/02 21:48:47 d2.utils.events]: eta: 0:15:52 iter: 2879 total_loss: 0.9325 loss_cls: 0.1117 loss_box_reg: 0.3608 loss_mask: 0.2967 loss_rpn_cls: 0.01462 loss_rpn_loc: 0.1303 time: 0.1352 last_time: 0.1335 data_time: 0.0043 last_data_time: 0.0044 lr: 0.00025 max_mem: 2610M [08/02 21:48:49 d2.utils.events]: eta: 0:15:49 iter: 2899 total_loss: 0.8771 loss_cls: 0.1133 loss_box_reg: 0.3418 loss_mask: 0.2958 loss_rpn_cls: 0.01355 loss_rpn_loc: 0.1249 time: 0.1352 last_time: 0.1390 data_time: 0.0044 last_data_time: 0.0046 lr: 0.00025 max_mem: 2610M [08/02 21:48:52 d2.utils.events]: eta: 0:15:47 iter: 2919 total_loss: 0.9337 loss_cls: 0.1137 loss_box_reg: 0.3511 loss_mask: 0.2974 loss_rpn_cls: 0.01759 loss_rpn_loc: 0.1362 time: 0.1352 last_time: 0.1379 data_time: 0.0045 last_data_time: 0.0044 lr: 0.00025 max_mem: 2610M [08/02 21:48:55 d2.utils.events]: eta: 0:15:45 iter: 2939 total_loss: 0.8675 loss_cls: 0.09939 loss_box_reg: 0.3454 loss_mask: 0.289 loss_rpn_cls: 0.01336 loss_rpn_loc: 0.1228 time: 0.1352 last_time: 0.1359 data_time: 0.0050 last_data_time: 0.0049 lr: 0.00025 max_mem: 2610M [08/02 21:48:57 d2.utils.events]: eta: 0:15:42 iter: 2959 total_loss: 0.9441 loss_cls: 0.1115 loss_box_reg: 0.3698 loss_mask: 0.299 loss_rpn_cls: 0.01488 loss_rpn_loc: 0.1306 time: 0.1352 last_time: 0.1234 data_time: 0.0049 last_data_time: 0.0043 lr: 0.00025 max_mem: 2610M [08/02 21:49:00 d2.utils.events]: eta: 0:15:40 iter: 2979 total_loss: 0.9185 loss_cls: 0.102 loss_box_reg: 0.3651 loss_mask: 0.2965 loss_rpn_cls: 0.01578 loss_rpn_loc: 0.1284 time: 0.1352 last_time: 0.1274 data_time: 0.0046 last_data_time: 0.0056 lr: 0.00025 max_mem: 2610M
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[08/02 21:49:03 d2.utils.events]: eta: 0:15:37 iter: 2999
total_loss: 0.8888 loss_cls: 0.1074 loss_box_reg: 0.346 loss_mask:
0.2911 loss_rpn_cls: 0.01822 loss_rpn_loc: 0.118 time: 0.1351
last_time: 0.1395 data_time: 0.0044 last_data_time: 0.0045 lr:
0.00025 max_mem: 2610M
[08/02 21:49:05 d2.utils.events]: eta: 0:15:34 iter: 3019
total_loss: 0.9018 loss_cls: 0.1087 loss_box_reg: 0.3491 loss_mask:
0.2863 loss_rpn_cls: 0.01501 loss_rpn_loc: 0.1226 time: 0.1351
last_time: 0.1394 data_time: 0.0046 last_data_time: 0.0055 lr:
0.00025 max_mem: 2610M
[08/02 21:49:08 d2.utils.events]: eta: 0:15:32 iter: 3039
total_loss: 0.874 loss_cls: 0.1033 loss_box_reg: 0.3397 loss_mask:
0.2854 loss_rpn_cls: 0.01029 loss_rpn_loc: 0.1285 time: 0.1351
last_time: 0.1490 data_time: 0.0046 last_data_time: 0.0051 lr:
0.00025 max_mem: 2610M
[08/02 21:49:11 d2.utils.events]: eta: 0:15:29 iter: 3059
total_loss: 0.9407 loss_cls: 0.1099 loss_box_reg: 0.364 loss_mask:
0.2995 loss_rpn_cls: 0.01596 loss_rpn_loc: 0.1314 time: 0.1351
last_time: 0.1276 data_time: 0.0045 last_data_time: 0.0043 lr:
0.00025 max_mem: 2610M
[08/02 21:49:13 d2.utils.events]: eta: 0:15:26 iter: 3079
total_loss: 0.8669 loss_cls: 0.1047 loss_box_reg: 0.3497 loss_mask:
0.2976 loss_rpn_cls: 0.01393 loss_rpn_loc: 0.1219 time: 0.1351
last_time: 0.1353 data_time: 0.0045 last_data_time: 0.0042 lr:
0.00025 max_mem: 2610M
[08/02 21:49:16 d2.utils.events]: eta: 0:15:24 iter: 3099
total_loss: 0.9031 loss_cls: 0.1016 loss_box_reg: 0.3432 loss_mask:
0.2841 loss_rpn_cls: 0.01622 loss_rpn_loc: 0.1264 time: 0.1351
last_time: 0.1382 data_time: 0.0045 last_data_time: 0.0047 lr:
0.00025 max_mem: 2610M
[08/02 21:49:19 d2.utils.events]: eta: 0:15:21 iter: 3119
total_loss: 0.8821 loss_cls: 0.1097 loss_box_reg: 0.3623 loss_mask:
0.2858 loss_rpn_cls: 0.01174 loss_rpn_loc: 0.1292 time: 0.1351
last_time: 0.1324 data_time: 0.0048 last_data_time: 0.0047 lr:
0.00025 max_mem: 2610M
[08/02 21:49:21 d2.utils.events]: eta: 0:15:19 iter: 3139
total_loss: 0.8801 loss_cls: 0.1005 loss_box_reg: 0.3522 loss_mask:
0.2934 loss_rpn_cls: 0.01534 loss_rpn_loc: 0.1191 time: 0.1351
last_time: 0.1299 data_time: 0.0049 last_data_time: 0.0045 lr:
0.00025 max_mem: 2610M
[08/02 21:49:24 d2.utils.events]: eta: 0:15:16 iter: 3159
total_loss: 0.8442 loss_cls: 0.1082 loss_box_reg: 0.3385 loss_mask:
0.2879 loss_rpn_cls: 0.01396 loss_rpn_loc: 0.1201 time: 0.1351
last_time: 0.1373 data_time: 0.0048 last_data_time: 0.0046 lr:
0.00025 max_mem: 2610M
[08/02 21:49:27 d2.utils.events]: eta: 0:15:13 iter: 3179
total_loss: 0.8798 loss_cls: 0.1006 loss_box_reg: 0.3371 loss_mask:
0.2888 loss_rpn_cls: 0.01586 loss_rpn_loc: 0.128 time: 0.1351
last_time: 0.1363 data_time: 0.0046 last_data_time: 0.0047 lr:
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0.00025 max_mem: 2610M
[08/02 21:49:30 d2.utils.events]: eta: 0:15:11 iter: 3199
total_loss: 0.8908 loss_cls: 0.106 loss_box_reg: 0.3419 loss_mask:
0.306 loss_rpn_cls: 0.01532 loss_rpn_loc: 0.1215 time: 0.1350
last_time: 0.1261 data_time: 0.0047 last_data_time: 0.0050 lr:
0.00025 max_mem: 2610M
[08/02 21:49:32 d2.utils.events]: eta: 0:15:08 iter: 3219
total_loss: 0.8585 loss_cls: 0.09769 loss_box_reg: 0.3364
loss_mask: 0.2872 loss_rpn_cls: 0.01508 loss_rpn_loc: 0.1222
time: 0.1350 last_time: 0.1411 data_time: 0.0049 last_data_time:
0.0049 lr: 0.00025 max_mem: 2610M
[08/02 21:49:35 d2.utils.events]: eta: 0:15:05 iter: 3239
total_loss: 0.8512 loss_cls: 0.09503 loss_box_reg: 0.3312
loss_mask: 0.2955 loss_rpn_cls: 0.01499 loss_rpn_loc: 0.1309
time: 0.1350 last_time: 0.1296 data_time: 0.0045 last_data_time:
0.0042 lr: 0.00025 max_mem: 2657M
[08/02 21:49:38 d2.utils.events]: eta: 0:15:03 iter: 3259
total_loss: 0.8092 loss_cls: 0.09103 loss_box_reg: 0.3086
loss_mask: 0.2744 loss_rpn_cls: 0.01546 loss_rpn_loc: 0.1137
time: 0.1350 last_time: 0.1317 data_time: 0.0045 last_data_time:
0.0044 lr: 0.00025 max_mem: 2657M
[08/02 21:49:40 d2.utils.events]: eta: 0:15:00 iter: 3279
total_loss: 0.869 loss_cls: 0.09751 loss_box_reg: 0.3499 loss_mask:
0.2883 loss_rpn_cls: 0.0136 loss_rpn_loc: 0.125 time: 0.1350
last_time: 0.1301 data_time: 0.0050 last_data_time: 0.0044 lr:
0.00025 max_mem: 2657M
[08/02 21:49:43 d2.utils.events]: eta: 0:14:58 iter: 3299
total_loss: 0.8573 loss_cls: 0.09283 loss_box_reg: 0.3329
loss_mask: 0.2841 loss_rpn_cls: 0.01246 loss_rpn_loc: 0.1267
time: 0.1350 last_time: 0.1391 data_time: 0.0045 last_data_time:
0.0046 lr: 0.00025 max_mem: 2657M
[08/02 21:49:46 d2.utils.events]: eta: 0:14:56 iter: 3319
total_loss: 0.8767 loss_cls: 0.0977 loss_box_reg: 0.3376 loss_mask:
0.2907 loss_rpn_cls: 0.02207 loss_rpn_loc: 0.1297 time: 0.1350
last_time: 0.1277 data_time: 0.0045 last_data_time: 0.0043 lr:
0.00025 max_mem: 2657M
[08/02 21:49:48 d2.utils.events]: eta: 0:14:53 iter: 3339
total_loss: 0.8862 loss_cls: 0.09657 loss_box_reg: 0.341 loss_mask:
0.2888 loss_rpn_cls: 0.01486 loss_rpn_loc: 0.1215 time: 0.1350
last_time: 0.1345 data_time: 0.0044 last_data_time: 0.0042 lr:
0.00025 max_mem: 2657M
[08/02 21:49:51 d2.utils.events]: eta: 0:14:51 iter: 3359
total_loss: 0.8577 loss_cls: 0.1 loss_box_reg: 0.3382 loss_mask:
0.2876 loss_rpn_cls: 0.01339 loss_rpn_loc: 0.1173 time: 0.1350
last_time: 0.1402 data_time: 0.0049 last_data_time: 0.0046 lr:
0.00025 max_mem: 2657M
[08/02 21:49:54 d2.utils.events]: eta: 0:14:48 iter: 3379
total_loss: 0.8373 loss_cls: 0.1008 loss_box_reg: 0.3181 loss_mask:
0.2787 loss_rpn_cls: 0.01636 loss_rpn_loc: 0.1245 time: 0.1350
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last_time: 0.1374 data_time: 0.0050 last_data_time: 0.0046 lr:  
0.00025 max_mem: 2657M  
[08/02 21:49:56 d2.utils.events]: eta: 0:14:46 iter: 3399  
total_loss: 0.8466 loss_cls: 0.09383 loss_box_reg: 0.3301  
loss_mask: 0.2938 loss_rpn_cls: 0.01734 loss_rpn_loc: 0.1154  
time: 0.1350 last_time: 0.1369 data_time: 0.0046 last_data_time:  
0.0044 lr: 0.00025 max_mem: 2657M  
[08/02 21:49:59 d2.utils.events]: eta: 0:14:43 iter: 3419  
total_loss: 0.8551 loss_cls: 0.09735 loss_box_reg: 0.3364  
loss_mask: 0.2907 loss_rpn_cls: 0.01318 loss_rpn_loc: 0.1246  
time: 0.1350 last_time: 0.1359 data_time: 0.0048 last_data_time:  
0.0049 lr: 0.00025 max_mem: 2657M  
[08/02 21:50:02 d2.utils.events]: eta: 0:14:40 iter: 3439  
total_loss: 0.8855 loss_cls: 0.09754 loss_box_reg: 0.3434  
loss_mask: 0.2812 loss_rpn_cls: 0.01294 loss_rpn_loc: 0.1274  
time: 0.1350 last_time: 0.1327 data_time: 0.0049 last_data_time:  
0.0052 lr: 0.00025 max_mem: 2657M  
[08/02 21:50:05 d2.utils.events]: eta: 0:14:38 iter: 3459  
total_loss: 0.8282 loss_cls: 0.09323 loss_box_reg: 0.322 loss_mask:  
0.2747 loss_rpn_cls: 0.01389 loss_rpn_loc: 0.1164 time: 0.1350  
last_time: 0.1357 data_time: 0.0049 last_data_time: 0.0047 lr:  
0.00025 max_mem: 2657M  
[08/02 21:50:07 d2.utils.events]: eta: 0:14:35 iter: 3479  
total_loss: 0.8572 loss_cls: 0.0989 loss_box_reg: 0.3343 loss_mask:  
0.2863 loss_rpn_cls: 0.01152 loss_rpn_loc: 0.1272 time: 0.1350  
last_time: 0.1232 data_time: 0.0047 last_data_time: 0.0050 lr:  
0.00025 max_mem: 2657M  
[08/02 21:50:10 d2.utils.events]: eta: 0:14:32 iter: 3499  
total_loss: 0.8443 loss_cls: 0.097 loss_box_reg: 0.3309 loss_mask:  
0.279 loss_rpn_cls: 0.0137 loss_rpn_loc: 0.1228 time: 0.1350  
last_time: 0.1339 data_time: 0.0046 last_data_time: 0.0044 lr:  
0.00025 max_mem: 2657M  
[08/02 21:50:13 d2.utils.events]: eta: 0:14:30 iter: 3519  
total_loss: 0.8578 loss_cls: 0.09821 loss_box_reg: 0.3318  
loss_mask: 0.2889 loss_rpn_cls: 0.01178 loss_rpn_loc: 0.1233  
time: 0.1350 last_time: 0.1370 data_time: 0.0044 last_data_time:  
0.0044 lr: 0.00025 max_mem: 2657M  
[08/02 21:50:15 d2.utils.events]: eta: 0:14:27 iter: 3539  
total_loss: 0.8428 loss_cls: 0.0983 loss_box_reg: 0.3255 loss_mask:  
0.2844 loss_rpn_cls: 0.01561 loss_rpn_loc: 0.1317 time: 0.1350  
last_time: 0.1321 data_time: 0.0043 last_data_time: 0.0043 lr:  
0.00025 max_mem: 2657M  
[08/02 21:50:18 d2.utils.events]: eta: 0:14:24 iter: 3559  
total_loss: 0.8622 loss_cls: 0.09907 loss_box_reg: 0.3366  
loss_mask: 0.2833 loss_rpn_cls: 0.01818 loss_rpn_loc: 0.1247  
time: 0.1350 last_time: 0.1367 data_time: 0.0044 last_data_time:  
0.0043 lr: 0.00025 max_mem: 2657M  
[08/02 21:50:21 d2.utils.events]: eta: 0:14:22 iter: 3579  
total_loss: 0.8654 loss_cls: 0.1036 loss_box_reg: 0.3333 loss_mask:
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0.274 loss_rpn_cls: 0.02065 loss_rpn_loc: 0.1318 time: 0.1350
last_time: 0.1258 data_time: 0.0046 last_data_time: 0.0047 lr:
0.00025 max_mem: 2657M
[08/02 21:50:24 d2.utils.events]: eta: 0:14:19 iter: 3599
total_loss: 0.8089 loss_cls: 0.08345 loss_box_reg: 0.31 loss_mask:
0.2864 loss_rpn_cls: 0.008021 loss_rpn_loc: 0.1221 time: 0.1350
last_time: 0.1258 data_time: 0.0050 last_data_time: 0.0047 lr:
0.00025 max_mem: 2657M
[08/02 21:50:26 d2.utils.events]: eta: 0:14:16 iter: 3619
total_loss: 0.814 loss_cls: 0.09444 loss_box_reg: 0.2997 loss_mask:
0.2798 loss_rpn_cls: 0.01546 loss_rpn_loc: 0.1115 time: 0.1350
last_time: 0.1364 data_time: 0.0055 last_data_time: 0.0045 lr:
0.00025 max_mem: 2657M
[08/02 21:50:29 d2.utils.events]: eta: 0:14:13 iter: 3639
total_loss: 0.8364 loss_cls: 0.09927 loss_box_reg: 0.3205
loss_mask: 0.2833 loss_rpn_cls: 0.01641 loss_rpn_loc: 0.1149
time: 0.1350 last_time: 0.1396 data_time: 0.0047 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 21:50:32 d2.utils.events]: eta: 0:14:11 iter: 3659
total_loss: 0.8192 loss_cls: 0.08837 loss_box_reg: 0.3098
loss_mask: 0.2772 loss_rpn_cls: 0.01305 loss_rpn_loc: 0.1177
time: 0.1350 last_time: 0.1327 data_time: 0.0044 last_data_time:
0.0042 lr: 0.00025 max_mem: 2657M
[08/02 21:50:34 d2.utils.events]: eta: 0:14:08 iter: 3679
total_loss: 0.8125 loss_cls: 0.08781 loss_box_reg: 0.3002
loss_mask: 0.2779 loss_rpn_cls: 0.01242 loss_rpn_loc: 0.116 time:
0.1349 last_time: 0.1367 data_time: 0.0045 last_data_time: 0.0043
lr: 0.00025 max_mem: 2657M
[08/02 21:50:37 d2.utils.events]: eta: 0:14:05 iter: 3699
total_loss: 0.8125 loss_cls: 0.08319 loss_box_reg: 0.3011
loss_mask: 0.2829 loss_rpn_cls: 0.01335 loss_rpn_loc: 0.1143
time: 0.1349 last_time: 0.1279 data_time: 0.0044 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 21:50:40 d2.utils.events]: eta: 0:14:03 iter: 3719
total_loss: 0.7979 loss_cls: 0.09512 loss_box_reg: 0.3009
loss_mask: 0.2763 loss_rpn_cls: 0.01159 loss_rpn_loc: 0.1178
time: 0.1349 last_time: 0.1346 data_time: 0.0043 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 21:50:42 d2.utils.events]: eta: 0:14:00 iter: 3739
total_loss: 0.7883 loss_cls: 0.08178 loss_box_reg: 0.305 loss_mask:
0.2704 loss_rpn_cls: 0.01296 loss_rpn_loc: 0.1169 time: 0.1349
last_time: 0.1320 data_time: 0.0044 last_data_time: 0.0045 lr:
0.00025 max_mem: 2657M
[08/02 21:50:45 d2.utils.events]: eta: 0:13:57 iter: 3759
total_loss: 0.8136 loss_cls: 0.08526 loss_box_reg: 0.3094
loss_mask: 0.2709 loss_rpn_cls: 0.01545 loss_rpn_loc: 0.1186
time: 0.1349 last_time: 0.1392 data_time: 0.0045 last_data_time:
0.0048 lr: 0.00025 max_mem: 2657M
[08/02 21:50:48 d2.utils.events]: eta: 0:13:54 iter: 3779
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total_loss: 0.8274 loss_cls: 0.09033 loss_box_reg: 0.3109
loss_mask: 0.2875 loss_rpn_cls: 0.01303 loss_rpn_loc: 0.1196
time: 0.1349 last_time: 0.1322 data_time: 0.0047 last_data_time:
0.0048 lr: 0.00025 max_mem: 2657M
[08/02 21:50:50 d2.utils.events]: eta: 0:13:51 iter: 3799
total_loss: 0.8227 loss_cls: 0.0978 loss_box_reg: 0.3161 loss_mask:
0.2801 loss_rpn_cls: 0.01549 loss_rpn_loc: 0.1176 time: 0.1349
last_time: 0.1286 data_time: 0.0046 last_data_time: 0.0042 lr:
0.00025 max_mem: 2657M
[08/02 21:50:53 d2.utils.events]: eta: 0:13:49 iter: 3819
total_loss: 0.8048 loss_cls: 0.08741 loss_box_reg: 0.3082
loss_mask: 0.2793 loss_rpn_cls: 0.013 loss_rpn_loc: 0.1169 time:
0.1349 last_time: 0.1371 data_time: 0.0045 last_data_time: 0.0047
lr: 0.00025 max_mem: 2657M
[08/02 21:50:56 d2.utils.events]: eta: 0:13:46 iter: 3839
total_loss: 0.7987 loss_cls: 0.08883 loss_box_reg: 0.3018
loss_mask: 0.2893 loss_rpn_cls: 0.01196 loss_rpn_loc: 0.1041
time: 0.1349 last_time: 0.1289 data_time: 0.0044 last_data_time:
0.0046 lr: 0.00025 max_mem: 2657M
[08/02 21:50:58 d2.utils.events]: eta: 0:13:44 iter: 3859
total_loss: 0.7762 loss_cls: 0.08663 loss_box_reg: 0.2972
loss_mask: 0.2672 loss_rpn_cls: 0.01263 loss_rpn_loc: 0.113 time:
0.1349 last_time: 0.1326 data_time: 0.0046 last_data_time: 0.0053
lr: 0.00025 max_mem: 2657M
[08/02 21:51:01 d2.utils.events]: eta: 0:13:41 iter: 3879
total_loss: 0.8031 loss_cls: 0.08516 loss_box_reg: 0.2983
loss_mask: 0.2698 loss_rpn_cls: 0.01786 loss_rpn_loc: 0.1183
time: 0.1349 last_time: 0.1354 data_time: 0.0048 last_data_time:
0.0044 lr: 0.00025 max_mem: 2657M
[08/02 21:51:04 d2.utils.events]: eta: 0:13:39 iter: 3899
total_loss: 0.7844 loss_cls: 0.0853 loss_box_reg: 0.2967 loss_mask:
0.2795 loss_rpn_cls: 0.01442 loss_rpn_loc: 0.1125 time: 0.1349
last_time: 0.1361 data_time: 0.0044 last_data_time: 0.0042 lr:
0.00025 max_mem: 2657M
[08/02 21:51:07 d2.utils.events]: eta: 0:13:36 iter: 3919
total_loss: 0.786 loss_cls: 0.08589 loss_box_reg: 0.2919 loss_mask:
0.274 loss_rpn_cls: 0.0114 loss_rpn_loc: 0.1105 time: 0.1349
last_time: 0.1333 data_time: 0.0046 last_data_time: 0.0043 lr:
0.00025 max_mem: 2657M
[08/02 21:51:09 d2.utils.events]: eta: 0:13:33 iter: 3939
total_loss: 0.7957 loss_cls: 0.08418 loss_box_reg: 0.313 loss_mask:
0.2793 loss_rpn_cls: 0.01588 loss_rpn_loc: 0.1148 time: 0.1349
last_time: 0.1356 data_time: 0.0044 last_data_time: 0.0046 lr:
0.00025 max_mem: 2657M
[08/02 21:51:12 d2.utils.events]: eta: 0:13:30 iter: 3959
total_loss: 0.8714 loss_cls: 0.09991 loss_box_reg: 0.3506
loss_mask: 0.2853 loss_rpn_cls: 0.0146 loss_rpn_loc: 0.1212 time:
0.1349 last_time: 0.1465 data_time: 0.0047 last_data_time: 0.0088
lr: 0.00025 max_mem: 2657M
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[08/02 21:51:15 d2.utils.events]: eta: 0:13:27 iter: 3979
total_loss: 0.7978 loss_cls: 0.08712 loss_box_reg: 0.296 loss_mask:
0.2749 loss_rpn_cls: 0.01008 loss_rpn_loc: 0.1135 time: 0.1349
last_time: 0.1231 data_time: 0.0045 last_data_time: 0.0042 lr:
0.00025 max_mem: 2657M
[08/02 21:51:17 d2.utils.events]: eta: 0:13:25 iter: 3999
total_loss: 0.7861 loss_cls: 0.08522 loss_box_reg: 0.2935
loss_mask: 0.2714 loss_rpn_cls: 0.01552 loss_rpn_loc: 0.1159
time: 0.1349 last_time: 0.1359 data_time: 0.0044 last_data_time:
0.0044 lr: 0.00025 max_mem: 2657M
[08/02 21:51:20 d2.utils.events]: eta: 0:13:22 iter: 4019
total_loss: 0.7578 loss_cls: 0.08694 loss_box_reg: 0.2906
loss_mask: 0.2698 loss_rpn_cls: 0.01179 loss_rpn_loc: 0.1052
time: 0.1349 last_time: 0.1422 data_time: 0.0047 last_data_time:
0.0050 lr: 0.00025 max_mem: 2657M
[08/02 21:51:23 d2.utils.events]: eta: 0:13:20 iter: 4039
total_loss: 0.7644 loss_cls: 0.0873 loss_box_reg: 0.2809 loss_mask:
0.2627 loss_rpn_cls: 0.0116 loss_rpn_loc: 0.1107 time: 0.1349
last_time: 0.1351 data_time: 0.0046 last_data_time: 0.0049 lr:
0.00025 max_mem: 2657M
[08/02 21:51:26 d2.utils.events]: eta: 0:13:18 iter: 4059
total_loss: 0.7443 loss_cls: 0.08371 loss_box_reg: 0.2877
loss_mask: 0.2727 loss_rpn_cls: 0.01755 loss_rpn_loc: 0.1039
time: 0.1349 last_time: 0.1346 data_time: 0.0047 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 21:51:28 d2.utils.events]: eta: 0:13:15 iter: 4079
total_loss: 0.7673 loss_cls: 0.09017 loss_box_reg: 0.2966
loss_mask: 0.261 loss_rpn_cls: 0.01263 loss_rpn_loc: 0.1131 time:
0.1349 last_time: 0.1437 data_time: 0.0049 last_data_time: 0.0042
lr: 0.00025 max_mem: 2657M
[08/02 21:51:31 d2.utils.events]: eta: 0:13:12 iter: 4099
total_loss: 0.7517 loss_cls: 0.08277 loss_box_reg: 0.2712
loss_mask: 0.2848 loss_rpn_cls: 0.01465 loss_rpn_loc: 0.1157
time: 0.1349 last_time: 0.1275 data_time: 0.0044 last_data_time:
0.0045 lr: 0.00025 max_mem: 2657M
[08/02 21:51:34 d2.utils.events]: eta: 0:13:09 iter: 4119
total_loss: 0.827 loss_cls: 0.09873 loss_box_reg: 0.3131 loss_mask:
0.2718 loss_rpn_cls: 0.013 loss_rpn_loc: 0.1091 time: 0.1349
last_time: 0.1293 data_time: 0.0045 last_data_time: 0.0047 lr:
0.00025 max_mem: 2657M
[08/02 21:51:36 d2.utils.events]: eta: 0:13:07 iter: 4139
total_loss: 0.8019 loss_cls: 0.08581 loss_box_reg: 0.3018
loss_mask: 0.2725 loss_rpn_cls: 0.01603 loss_rpn_loc: 0.1224
time: 0.1349 last_time: 0.1322 data_time: 0.0046 last_data_time:
0.0042 lr: 0.00025 max_mem: 2657M
[08/02 21:51:39 d2.utils.events]: eta: 0:13:04 iter: 4159
total_loss: 0.7646 loss_cls: 0.08389 loss_box_reg: 0.3024
loss_mask: 0.2731 loss_rpn_cls: 0.01749 loss_rpn_loc: 0.1042
time: 0.1349 last_time: 0.1283 data_time: 0.0049 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
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[08/02 21:51:42 d2.utils.events]: eta: 0:13:01 iter: 4179
total_loss: 0.7869 loss_cls: 0.08606 loss_box_reg: 0.3076
loss_mask: 0.2748 loss_rpn_cls: 0.01147 loss_rpn_loc: 0.1072
time: 0.1349 last_time: 0.1354 data_time: 0.0050 last_data_time:
0.0049 lr: 0.00025 max_mem: 2657M
[08/02 21:51:44 d2.utils.events]: eta: 0:12:59 iter: 4199
total_loss: 0.7582 loss_cls: 0.08031 loss_box_reg: 0.2792
loss_mask: 0.2662 loss_rpn_cls: 0.01657 loss_rpn_loc: 0.108 time:
0.1349 last_time: 0.1297 data_time: 0.0048 last_data_time: 0.0049
lr: 0.00025 max_mem: 2657M
[08/02 21:51:47 d2.utils.events]: eta: 0:12:56 iter: 4219
total_loss: 0.7454 loss_cls: 0.07895 loss_box_reg: 0.283 loss_mask:
0.2722 loss_rpn_cls: 0.01631 loss_rpn_loc: 0.1029 time: 0.1349
last_time: 0.1301 data_time: 0.0051 last_data_time: 0.0058 lr:
0.00025 max_mem: 2657M
[08/02 21:51:50 d2.utils.events]: eta: 0:12:54 iter: 4239
total_loss: 0.7356 loss_cls: 0.08316 loss_box_reg: 0.2752
loss_mask: 0.2656 loss_rpn_cls: 0.01387 loss_rpn_loc: 0.1136
time: 0.1349 last_time: 0.1541 data_time: 0.0048 last_data_time:
0.0052 lr: 0.00025 max_mem: 2657M
[08/02 21:51:53 d2.utils.events]: eta: 0:12:51 iter: 4259
total_loss: 0.7413 loss_cls: 0.08484 loss_box_reg: 0.2875
loss_mask: 0.2681 loss_rpn_cls: 0.01625 loss_rpn_loc: 0.1067
time: 0.1349 last_time: 0.1238 data_time: 0.0046 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 21:51:55 d2.utils.events]: eta: 0:12:48 iter: 4279
total_loss: 0.7867 loss_cls: 0.07719 loss_box_reg: 0.297 loss_mask:
0.2763 loss_rpn_cls: 0.01222 loss_rpn_loc: 0.1188 time: 0.1349
last_time: 0.1336 data_time: 0.0046 last_data_time: 0.0047 lr:
0.00025 max_mem: 2657M
[08/02 21:51:58 d2.utils.events]: eta: 0:12:45 iter: 4299
total_loss: 0.7718 loss_cls: 0.08043 loss_box_reg: 0.2862
loss_mask: 0.2733 loss_rpn_cls: 0.01128 loss_rpn_loc: 0.1042
time: 0.1348 last_time: 0.1377 data_time: 0.0044 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 21:52:01 d2.utils.events]: eta: 0:12:42 iter: 4319
total_loss: 0.7753 loss_cls: 0.0822 loss_box_reg: 0.3001 loss_mask:
0.2716 loss_rpn_cls: 0.01648 loss_rpn_loc: 0.1142 time: 0.1348
last_time: 0.1360 data_time: 0.0045 last_data_time: 0.0042 lr:
0.00025 max_mem: 2657M
[08/02 21:52:03 d2.utils.events]: eta: 0:12:40 iter: 4339
total_loss: 0.72 loss_cls: 0.07706 loss_box_reg: 0.2696 loss_mask:
0.2608 loss_rpn_cls: 0.01718 loss_rpn_loc: 0.09989 time: 0.1349
last_time: 0.1331 data_time: 0.0050 last_data_time: 0.0049 lr:
0.00025 max_mem: 2657M
[08/02 21:52:06 d2.utils.events]: eta: 0:12:38 iter: 4359
total_loss: 0.7197 loss_cls: 0.0767 loss_box_reg: 0.2657 loss_mask:
0.2652 loss_rpn_cls: 0.0126 loss_rpn_loc: 0.112 time: 0.1349
last_time: 0.1448 data_time: 0.0050 last_data_time: 0.0052 lr:
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0.00025 max_mem: 2657M
[08/02 21:52:09 d2.utils.events]: eta: 0:12:35 iter: 4379
total_loss: 0.758 loss_cls: 0.0822 loss_box_reg: 0.2844 loss_mask:
0.2691 loss_rpn_cls: 0.01404 loss_rpn_loc: 0.1111 time: 0.1349
last_time: 0.1455 data_time: 0.0048 last_data_time: 0.0047 lr:
0.00025 max_mem: 2657M
[08/02 21:52:12 d2.utils.events]: eta: 0:12:32 iter: 4399
total_loss: 0.7435 loss_cls: 0.07539 loss_box_reg: 0.2854
loss_mask: 0.266 loss_rpn_cls: 0.0103 loss_rpn_loc: 0.09765 time:
0.1349 last_time: 0.1369 data_time: 0.0046 last_data_time: 0.0044
lr: 0.00025 max_mem: 2657M
[08/02 21:52:14 d2.utils.events]: eta: 0:12:29 iter: 4419
total_loss: 0.7175 loss_cls: 0.07815 loss_box_reg: 0.2608
loss_mask: 0.2605 loss_rpn_cls: 0.0163 loss_rpn_loc: 0.09882
time: 0.1349 last_time: 0.1248 data_time: 0.0048 last_data_time:
0.0051 lr: 0.00025 max_mem: 2657M
[08/02 21:52:17 d2.utils.events]: eta: 0:12:27 iter: 4439
total_loss: 0.7286 loss_cls: 0.07777 loss_box_reg: 0.2605
loss_mask: 0.2711 loss_rpn_cls: 0.01639 loss_rpn_loc: 0.1113
time: 0.1349 last_time: 0.1409 data_time: 0.0046 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 21:52:20 d2.utils.events]: eta: 0:12:24 iter: 4459
total_loss: 0.7192 loss_cls: 0.07689 loss_box_reg: 0.2593
loss_mask: 0.2643 loss_rpn_cls: 0.0156 loss_rpn_loc: 0.1026 time:
0.1349 last_time: 0.1226 data_time: 0.0055 last_data_time: 0.0051
lr: 0.00025 max_mem: 2657M
[08/02 21:52:22 d2.utils.events]: eta: 0:12:22 iter: 4479
total_loss: 0.7276 loss_cls: 0.07563 loss_box_reg: 0.2705
loss_mask: 0.2631 loss_rpn_cls: 0.01626 loss_rpn_loc: 0.1088
time: 0.1349 last_time: 0.1479 data_time: 0.0052 last_data_time:
0.0055 lr: 0.00025 max_mem: 2657M
[08/02 21:52:25 d2.utils.events]: eta: 0:12:20 iter: 4499
total_loss: 0.6993 loss_cls: 0.07077 loss_box_reg: 0.258 loss_mask:
0.2485 loss_rpn_cls: 0.01109 loss_rpn_loc: 0.1016 time: 0.1349
last_time: 0.1357 data_time: 0.0051 last_data_time: 0.0049 lr:
0.00025 max_mem: 2657M
[08/02 21:52:28 d2.utils.events]: eta: 0:12:17 iter: 4519
total_loss: 0.7069 loss_cls: 0.07176 loss_box_reg: 0.2581
loss_mask: 0.262 loss_rpn_cls: 0.01757 loss_rpn_loc: 0.1002 time:
0.1349 last_time: 0.1375 data_time: 0.0051 last_data_time: 0.0049
lr: 0.00025 max_mem: 2657M
[08/02 21:52:31 d2.utils.events]: eta: 0:12:15 iter: 4539
total_loss: 0.6939 loss_cls: 0.07772 loss_box_reg: 0.2422
loss_mask: 0.2476 loss_rpn_cls: 0.01365 loss_rpn_loc: 0.09602
time: 0.1349 last_time: 0.1331 data_time: 0.0054 last_data_time:
0.0050 lr: 0.00025 max_mem: 2657M
[08/02 21:52:33 d2.utils.events]: eta: 0:12:12 iter: 4559
total_loss: 0.6803 loss_cls: 0.07365 loss_box_reg: 0.2381
loss_mask: 0.2601 loss_rpn_cls: 0.0123 loss_rpn_loc: 0.09228
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time: 0.1349 last_time: 0.1355 data_time: 0.0050 last_data_time:  
0.0049 lr: 0.00025 max_mem: 2657M  
[08/02 21:52:36 d2.utils.events]: eta: 0:12:09 iter: 4579  
total_loss: 0.6921 loss_cls: 0.07404 loss_box_reg: 0.2402  
loss_mask: 0.2517 loss_rpn_cls: 0.01146 loss_rpn_loc: 0.09668  
time: 0.1349 last_time: 0.1491 data_time: 0.0049 last_data_time:  
0.0058 lr: 0.00025 max_mem: 2657M  
[08/02 21:52:39 d2.utils.events]: eta: 0:12:06 iter: 4599  
total_loss: 0.6935 loss_cls: 0.0731 loss_box_reg: 0.2546 loss_mask:  
0.2572 loss_rpn_cls: 0.01417 loss_rpn_loc: 0.1022 time: 0.1349  
last_time: 0.1467 data_time: 0.0051 last_data_time: 0.0049 lr:  
0.00025 max_mem: 2657M  
[08/02 21:52:42 d2.utils.events]: eta: 0:12:04 iter: 4619  
total_loss: 0.7141 loss_cls: 0.07343 loss_box_reg: 0.264 loss_mask:  
0.2655 loss_rpn_cls: 0.01611 loss_rpn_loc: 0.09347 time: 0.1349  
last_time: 0.1371 data_time: 0.0048 last_data_time: 0.0045 lr:  
0.00025 max_mem: 2657M  
[08/02 21:52:44 d2.utils.events]: eta: 0:12:02 iter: 4639  
total_loss: 0.6828 loss_cls: 0.06748 loss_box_reg: 0.2459  
loss_mask: 0.2534 loss_rpn_cls: 0.01159 loss_rpn_loc: 0.102 time:  
0.1349 last_time: 0.1317 data_time: 0.0050 last_data_time: 0.0048  
lr: 0.00025 max_mem: 2657M  
[08/02 21:52:47 d2.utils.events]: eta: 0:11:58 iter: 4659  
total_loss: 0.7128 loss_cls: 0.07547 loss_box_reg: 0.2689  
loss_mask: 0.261 loss_rpn_cls: 0.01448 loss_rpn_loc: 0.09926  
time: 0.1349 last_time: 0.1284 data_time: 0.0050 last_data_time:  
0.0051 lr: 0.00025 max_mem: 2657M  
[08/02 21:52:50 d2.utils.events]: eta: 0:11:56 iter: 4679  
total_loss: 0.7384 loss_cls: 0.07592 loss_box_reg: 0.2687  
loss_mask: 0.268 loss_rpn_cls: 0.01386 loss_rpn_loc: 0.1043 time:  
0.1349 last_time: 0.1471 data_time: 0.0050 last_data_time: 0.0045  
lr: 0.00025 max_mem: 2657M  
[08/02 21:52:52 d2.utils.events]: eta: 0:11:54 iter: 4699  
total_loss: 0.6849 loss_cls: 0.0721 loss_box_reg: 0.2471 loss_mask:  
0.253 loss_rpn_cls: 0.01168 loss_rpn_loc: 0.09479 time: 0.1349  
last_time: 0.1278 data_time: 0.0045 last_data_time: 0.0045 lr:  
0.00025 max_mem: 2657M  
[08/02 21:52:55 d2.utils.events]: eta: 0:11:51 iter: 4719  
total_loss: 0.6602 loss_cls: 0.07119 loss_box_reg: 0.2301  
loss_mask: 0.2531 loss_rpn_cls: 0.01398 loss_rpn_loc: 0.09378  
time: 0.1349 last_time: 0.1262 data_time: 0.0045 last_data_time:  
0.0047 lr: 0.00025 max_mem: 2657M  
[08/02 21:52:58 d2.utils.events]: eta: 0:11:48 iter: 4739  
total_loss: 0.6958 loss_cls: 0.0779 loss_box_reg: 0.2576 loss_mask:  
0.2644 loss_rpn_cls: 0.01217 loss_rpn_loc: 0.09814 time: 0.1349  
last_time: 0.1243 data_time: 0.0044 last_data_time: 0.0043 lr:  
0.00025 max_mem: 2657M  
[08/02 21:53:00 d2.utils.events]: eta: 0:11:46 iter: 4759  
total_loss: 0.7002 loss_cls: 0.06797 loss_box_reg: 0.2542
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loss_mask: 0.2614 loss_rpn_cls: 0.008346 loss_rpn_loc: 0.09884
time: 0.1349 last_time: 0.1398 data_time: 0.0046 last_data_time:
0.0052 lr: 0.00025 max_mem: 2657M
[08/02 21:53:03 d2.utils.events]: eta: 0:11:43 iter: 4779
total_loss: 0.6913 loss_cls: 0.07559 loss_box_reg: 0.2468
loss_mask: 0.2537 loss_rpn_cls: 0.01241 loss_rpn_loc: 0.09778
time: 0.1349 last_time: 0.1335 data_time: 0.0050 last_data_time:
0.0048 lr: 0.00025 max_mem: 2657M
[08/02 21:53:06 d2.utils.events]: eta: 0:11:41 iter: 4799
total_loss: 0.6548 loss_cls: 0.07227 loss_box_reg: 0.234 loss_mask:
0.2573 loss_rpn_cls: 0.008634 loss_rpn_loc: 0.09067 time: 0.1349
last_time: 0.1524 data_time: 0.0049 last_data_time: 0.0058 lr:
0.00025 max_mem: 2657M
[08/02 21:53:09 d2.utils.events]: eta: 0:11:38 iter: 4819
total_loss: 0.7164 loss_cls: 0.06744 loss_box_reg: 0.2693
loss_mask: 0.2661 loss_rpn_cls: 0.01845 loss_rpn_loc: 0.1019
time: 0.1349 last_time: 0.1174 data_time: 0.0048 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 21:53:11 d2.utils.events]: eta: 0:11:35 iter: 4839
total_loss: 0.6647 loss_cls: 0.07091 loss_box_reg: 0.2361
loss_mask: 0.2516 loss_rpn_cls: 0.01373 loss_rpn_loc: 0.092 time:
0.1349 last_time: 0.1346 data_time: 0.0055 last_data_time: 0.0051
lr: 0.00025 max_mem: 2657M
[08/02 21:53:14 d2.utils.events]: eta: 0:11:33 iter: 4859
total_loss: 0.6615 loss_cls: 0.06854 loss_box_reg: 0.2193
loss_mask: 0.2479 loss_rpn_cls: 0.01178 loss_rpn_loc: 0.09665
time: 0.1349 last_time: 0.1310 data_time: 0.0050 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 21:53:17 d2.utils.events]: eta: 0:11:30 iter: 4879
total_loss: 0.6372 loss_cls: 0.06466 loss_box_reg: 0.2263
loss_mask: 0.2503 loss_rpn_cls: 0.008889 loss_rpn_loc: 0.08273
time: 0.1349 last_time: 0.1427 data_time: 0.0050 last_data_time:
0.0048 lr: 0.00025 max_mem: 2657M
[08/02 21:53:19 d2.utils.events]: eta: 0:11:27 iter: 4899
total_loss: 0.7016 loss_cls: 0.0695 loss_box_reg: 0.2593 loss_mask:
0.259 loss_rpn_cls: 0.0129 loss_rpn_loc: 0.09768 time: 0.1349
last_time: 0.1331 data_time: 0.0048 last_data_time: 0.0046 lr:
0.00025 max_mem: 2657M
[08/02 21:53:22 d2.utils.events]: eta: 0:11:25 iter: 4919
total_loss: 0.6827 loss_cls: 0.06637 loss_box_reg: 0.2426
loss_mask: 0.2595 loss_rpn_cls: 0.01279 loss_rpn_loc: 0.1005
time: 0.1349 last_time: 0.1312 data_time: 0.0047 last_data_time:
0.0049 lr: 0.00025 max_mem: 2657M
[08/02 21:53:25 d2.utils.events]: eta: 0:11:22 iter: 4939
total_loss: 0.6801 loss_cls: 0.0684 loss_box_reg: 0.2472 loss_mask:
0.2551 loss_rpn_cls: 0.01369 loss_rpn_loc: 0.09841 time: 0.1349
last_time: 0.1161 data_time: 0.0050 last_data_time: 0.0049 lr:
0.00025 max_mem: 2657M
[08/02 21:53:28 d2.utils.events]: eta: 0:11:20 iter: 4959
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total_loss: 0.6713 loss_cls: 0.06132 loss_box_reg: 0.2376
loss_mask: 0.2554 loss_rpn_cls: 0.01166 loss_rpn_loc: 0.08785
time: 0.1349 last_time: 0.1515 data_time: 0.0049 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 21:53:30 d2.utils.events]: eta: 0:11:17 iter: 4979
total_loss: 0.707 loss_cls: 0.07055 loss_box_reg: 0.257 loss_mask:
0.2563 loss_rpn_cls: 0.01423 loss_rpn_loc: 0.1006 time: 0.1349
last_time: 0.1495 data_time: 0.0047 last_data_time: 0.0064 lr:
0.00025 max_mem: 2657M
[08/02 21:53:33 d2.utils.events]: eta: 0:11:15 iter: 4999
total_loss: 0.6725 loss_cls: 0.06733 loss_box_reg: 0.2356
loss_mask: 0.2566 loss_rpn_cls: 0.01251 loss_rpn_loc: 0.102 time:
0.1349 last_time: 0.1333 data_time: 0.0044 last_data_time: 0.0052
lr: 0.00025 max_mem: 2657M
[08/02 21:53:36 d2.utils.events]: eta: 0:11:13 iter: 5019
total_loss: 0.705 loss_cls: 0.07197 loss_box_reg: 0.2513 loss_mask:
0.2546 loss_rpn_cls: 0.01431 loss_rpn_loc: 0.09322 time: 0.1349
last_time: 0.1442 data_time: 0.0047 last_data_time: 0.0047 lr:
0.00025 max_mem: 2657M
[08/02 21:53:39 d2.utils.events]: eta: 0:11:09 iter: 5039
total_loss: 0.6686 loss_cls: 0.06314 loss_box_reg: 0.2382
loss_mask: 0.2493 loss_rpn_cls: 0.01286 loss_rpn_loc: 0.09463
time: 0.1349 last_time: 0.1291 data_time: 0.0044 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 21:53:42 d2.utils.events]: eta: 0:11:07 iter: 5059
total_loss: 0.6659 loss_cls: 0.06894 loss_box_reg: 0.2428
loss_mask: 0.2525 loss_rpn_cls: 0.01267 loss_rpn_loc: 0.09832
time: 0.1349 last_time: 0.1415 data_time: 0.0044 last_data_time:
0.0044 lr: 0.00025 max_mem: 2657M
[08/02 21:53:44 d2.utils.events]: eta: 0:11:04 iter: 5079
total_loss: 0.6414 loss_cls: 0.06725 loss_box_reg: 0.2194
loss_mask: 0.2457 loss_rpn_cls: 0.009588 loss_rpn_loc: 0.09035
time: 0.1349 last_time: 0.1370 data_time: 0.0049 last_data_time:
0.0049 lr: 0.00025 max_mem: 2657M
[08/02 21:53:47 d2.utils.events]: eta: 0:11:02 iter: 5099
total_loss: 0.6523 loss_cls: 0.06832 loss_box_reg: 0.2326
loss_mask: 0.2528 loss_rpn_cls: 0.01355 loss_rpn_loc: 0.1033
time: 0.1349 last_time: 0.1277 data_time: 0.0047 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 21:53:50 d2.utils.events]: eta: 0:10:59 iter: 5119
total_loss: 0.6487 loss_cls: 0.06216 loss_box_reg: 0.2344
loss_mask: 0.2469 loss_rpn_cls: 0.01436 loss_rpn_loc: 0.09388
time: 0.1349 last_time: 0.1329 data_time: 0.0044 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 21:53:52 d2.utils.events]: eta: 0:10:56 iter: 5139
total_loss: 0.6599 loss_cls: 0.06943 loss_box_reg: 0.2342
loss_mask: 0.2491 loss_rpn_cls: 0.01856 loss_rpn_loc: 0.09344
time: 0.1349 last_time: 0.1354 data_time: 0.0044 last_data_time:
0.0044 lr: 0.00025 max_mem: 2657M
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[08/02 21:53:55 d2.utils.events]: eta: 0:10:53 iter: 5159
total_loss: 0.6531 loss_cls: 0.06506 loss_box_reg: 0.228 loss_mask:
0.2487 loss_rpn_cls: 0.016 loss_rpn_loc: 0.09368 time: 0.1349
last_time: 0.1473 data_time: 0.0045 last_data_time: 0.0049 lr:
0.00025 max_mem: 2657M
[08/02 21:53:58 d2.utils.events]: eta: 0:10:50 iter: 5179
total_loss: 0.6758 loss_cls: 0.063 loss_box_reg: 0.2458 loss_mask:
0.2489 loss_rpn_cls: 0.01013 loss_rpn_loc: 0.1001 time: 0.1349
last_time: 0.1417 data_time: 0.0046 last_data_time: 0.0045 lr:
0.00025 max_mem: 2657M
[08/02 21:54:00 d2.utils.events]: eta: 0:10:48 iter: 5199
total_loss: 0.6457 loss_cls: 0.06216 loss_box_reg: 0.2371
loss_mask: 0.2501 loss_rpn_cls: 0.01375 loss_rpn_loc: 0.09726
time: 0.1349 last_time: 0.1325 data_time: 0.0045 last_data_time:
0.0045 lr: 0.00025 max_mem: 2657M
[08/02 21:54:03 d2.utils.events]: eta: 0:10:45 iter: 5219
total_loss: 0.6347 loss_cls: 0.06003 loss_box_reg: 0.2268
loss_mask: 0.2454 loss_rpn_cls: 0.01599 loss_rpn_loc: 0.09661
time: 0.1349 last_time: 0.1315 data_time: 0.0043 last_data_time:
0.0045 lr: 0.00025 max_mem: 2657M
[08/02 21:54:06 d2.utils.events]: eta: 0:10:42 iter: 5239
total_loss: 0.6803 loss_cls: 0.07313 loss_box_reg: 0.2268
loss_mask: 0.2501 loss_rpn_cls: 0.01049 loss_rpn_loc: 0.09545
time: 0.1349 last_time: 0.1410 data_time: 0.0048 last_data_time:
0.0051 lr: 0.00025 max_mem: 2657M
[08/02 21:54:08 d2.utils.events]: eta: 0:10:39 iter: 5259
total_loss: 0.6526 loss_cls: 0.06534 loss_box_reg: 0.2227
loss_mask: 0.2474 loss_rpn_cls: 0.01295 loss_rpn_loc: 0.09028
time: 0.1348 last_time: 0.1278 data_time: 0.0045 last_data_time:
0.0044 lr: 0.00025 max_mem: 2657M
[08/02 21:54:12 d2.utils.events]: eta: 0:10:36 iter: 5279
total_loss: 0.6632 loss_cls: 0.06463 loss_box_reg: 0.2395
loss_mask: 0.2443 loss_rpn_cls: 0.01582 loss_rpn_loc: 0.09225
time: 0.1348 last_time: 0.1355 data_time: 0.0051 last_data_time:
0.0055 lr: 0.00025 max_mem: 2657M
[08/02 21:54:15 d2.utils.events]: eta: 0:10:34 iter: 5299
total_loss: 0.6485 loss_cls: 0.06665 loss_box_reg: 0.2347
loss_mask: 0.2484 loss_rpn_cls: 0.01323 loss_rpn_loc: 0.09495
time: 0.1348 last_time: 0.1361 data_time: 0.0051 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 21:54:18 d2.utils.events]: eta: 0:10:31 iter: 5319
total_loss: 0.5853 loss_cls: 0.0583 loss_box_reg: 0.1942 loss_mask:
0.2418 loss_rpn_cls: 0.01398 loss_rpn_loc: 0.08137 time: 0.1348
last_time: 0.1355 data_time: 0.0054 last_data_time: 0.0051 lr:
0.00025 max_mem: 2657M
[08/02 21:54:20 d2.utils.events]: eta: 0:10:28 iter: 5339
total_loss: 0.6111 loss_cls: 0.06331 loss_box_reg: 0.1905
loss_mask: 0.2473 loss_rpn_cls: 0.009045 loss_rpn_loc: 0.09335
time: 0.1348 last_time: 0.1401 data_time: 0.0048 last_data_time:
```

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0.0044 lr: 0.00025 max_mem: 2657M
[08/02 21:54:23 d2.utils.events]: eta: 0:10:25 iter: 5359
total_loss: 0.6189 loss_cls: 0.06113 loss_box_reg: 0.2178
loss_mask: 0.2417 loss_rpn_cls: 0.01172 loss_rpn_loc: 0.08139
time: 0.1348 last_time: 0.1295 data_time: 0.0045 last_data_time:
0.0051 lr: 0.00025 max_mem: 2657M
[08/02 21:54:26 d2.utils.events]: eta: 0:10:22 iter: 5379
total_loss: 0.6288 loss_cls: 0.0604 loss_box_reg: 0.2108 loss_mask:
0.2489 loss_rpn_cls: 0.01043 loss_rpn_loc: 0.08855 time: 0.1348
last_time: 0.1333 data_time: 0.0050 last_data_time: 0.0055 lr:
0.00025 max_mem: 2657M
[08/02 21:54:28 d2.utils.events]: eta: 0:10:20 iter: 5399
total_loss: 0.6311 loss_cls: 0.06122 loss_box_reg: 0.2216
loss_mask: 0.2432 loss_rpn_cls: 0.0105 loss_rpn_loc: 0.09916
time: 0.1348 last_time: 0.1226 data_time: 0.0053 last_data_time:
0.0054 lr: 0.00025 max_mem: 2657M
[08/02 21:54:31 d2.utils.events]: eta: 0:10:17 iter: 5419
total_loss: 0.6267 loss_cls: 0.06164 loss_box_reg: 0.2172
loss_mask: 0.2422 loss_rpn_cls: 0.01185 loss_rpn_loc: 0.0833
time: 0.1348 last_time: 0.1344 data_time: 0.0054 last_data_time:
0.0042 lr: 0.00025 max_mem: 2657M
[08/02 21:54:34 d2.utils.events]: eta: 0:10:14 iter: 5439
total_loss: 0.6072 loss_cls: 0.05652 loss_box_reg: 0.208 loss_mask:
0.2441 loss_rpn_cls: 0.009648 loss_rpn_loc: 0.08761 time: 0.1349
last_time: 0.1384 data_time: 0.0047 last_data_time: 0.0047 lr:
0.00025 max_mem: 2657M
[08/02 21:54:37 d2.utils.events]: eta: 0:10:12 iter: 5459
total_loss: 0.6109 loss_cls: 0.06189 loss_box_reg: 0.2196
loss_mask: 0.2389 loss_rpn_cls: 0.01246 loss_rpn_loc: 0.08802
time: 0.1349 last_time: 0.1303 data_time: 0.0045 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 21:54:39 d2.utils.events]: eta: 0:10:09 iter: 5479
total_loss: 0.6307 loss_cls: 0.06178 loss_box_reg: 0.215 loss_mask:
0.2438 loss_rpn_cls: 0.01196 loss_rpn_loc: 0.09172 time: 0.1349
last_time: 0.1329 data_time: 0.0049 last_data_time: 0.0043 lr:
0.00025 max_mem: 2657M
[08/02 21:54:42 d2.utils.events]: eta: 0:10:06 iter: 5499
total_loss: 0.6315 loss_cls: 0.06669 loss_box_reg: 0.2232
loss_mask: 0.2411 loss_rpn_cls: 0.007519 loss_rpn_loc: 0.09276
time: 0.1349 last_time: 0.1464 data_time: 0.0049 last_data_time:
0.0055 lr: 0.00025 max_mem: 2657M
[08/02 21:54:45 d2.utils.events]: eta: 0:10:03 iter: 5519
total_loss: 0.609 loss_cls: 0.06205 loss_box_reg: 0.2084 loss_mask:
0.2396 loss_rpn_cls: 0.01162 loss_rpn_loc: 0.08484 time: 0.1349
last_time: 0.1365 data_time: 0.0046 last_data_time: 0.0043 lr:
0.00025 max_mem: 2657M
[08/02 21:54:47 d2.utils.events]: eta: 0:10:00 iter: 5539
total_loss: 0.6108 loss_cls: 0.06124 loss_box_reg: 0.2195
loss_mask: 0.2415 loss_rpn_cls: 0.01875 loss_rpn_loc: 0.09056
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time: 0.1348 last_time: 0.1357 data_time: 0.0046 last_data_time:  
0.0042 lr: 0.00025 max_mem: 2657M  
[08/02 21:54:50 d2.utils.events]: eta: 0:09:57 iter: 5559  
total_loss: 0.6123 loss_cls: 0.06379 loss_box_reg: 0.2113  
loss_mask: 0.2444 loss_rpn_cls: 0.01309 loss_rpn_loc: 0.09305  
time: 0.1348 last_time: 0.1359 data_time: 0.0046 last_data_time:  
0.0043 lr: 0.00025 max_mem: 2657M  
[08/02 21:54:53 d2.utils.events]: eta: 0:09:54 iter: 5579  
total_loss: 0.6517 loss_cls: 0.0617 loss_box_reg: 0.2397 loss_mask:  
0.2406 loss_rpn_cls: 0.01164 loss_rpn_loc: 0.09234 time: 0.1348  
last_time: 0.1342 data_time: 0.0043 last_data_time: 0.0045 lr:  
0.00025 max_mem: 2657M  
[08/02 21:54:55 d2.utils.events]: eta: 0:09:51 iter: 5599  
total_loss: 0.5894 loss_cls: 0.05671 loss_box_reg: 0.2077  
loss_mask: 0.2299 loss_rpn_cls: 0.01213 loss_rpn_loc: 0.08519  
time: 0.1348 last_time: 0.1357 data_time: 0.0046 last_data_time:  
0.0048 lr: 0.00025 max_mem: 2657M  
[08/02 21:54:58 d2.utils.events]: eta: 0:09:49 iter: 5619  
total_loss: 0.6402 loss_cls: 0.05826 loss_box_reg: 0.2216  
loss_mask: 0.2343 loss_rpn_cls: 0.01033 loss_rpn_loc: 0.09115  
time: 0.1348 last_time: 0.1296 data_time: 0.0045 last_data_time:  
0.0044 lr: 0.00025 max_mem: 2657M  
[08/02 21:55:01 d2.utils.events]: eta: 0:09:46 iter: 5639  
total_loss: 0.5804 loss_cls: 0.05981 loss_box_reg: 0.1979  
loss_mask: 0.2373 loss_rpn_cls: 0.01387 loss_rpn_loc: 0.08291  
time: 0.1348 last_time: 0.1366 data_time: 0.0044 last_data_time:  
0.0044 lr: 0.00025 max_mem: 2657M  
[08/02 21:55:03 d2.utils.events]: eta: 0:09:43 iter: 5659  
total_loss: 0.6263 loss_cls: 0.05571 loss_box_reg: 0.2171  
loss_mask: 0.2415 loss_rpn_cls: 0.01816 loss_rpn_loc: 0.08578  
time: 0.1348 last_time: 0.1312 data_time: 0.0046 last_data_time:  
0.0043 lr: 0.00025 max_mem: 2657M  
[08/02 21:55:06 d2.utils.events]: eta: 0:09:40 iter: 5679  
total_loss: 0.6079 loss_cls: 0.05757 loss_box_reg: 0.2017  
loss_mask: 0.2384 loss_rpn_cls: 0.01078 loss_rpn_loc: 0.08644  
time: 0.1348 last_time: 0.1340 data_time: 0.0044 last_data_time:  
0.0047 lr: 0.00025 max_mem: 2657M  
[08/02 21:55:09 d2.utils.events]: eta: 0:09:38 iter: 5699  
total_loss: 0.6058 loss_cls: 0.06192 loss_box_reg: 0.2058  
loss_mask: 0.2429 loss_rpn_cls: 0.01055 loss_rpn_loc: 0.08996  
time: 0.1348 last_time: 0.1323 data_time: 0.0045 last_data_time:  
0.0042 lr: 0.00025 max_mem: 2657M  
[08/02 21:55:11 d2.utils.events]: eta: 0:09:35 iter: 5719  
total_loss: 0.5931 loss_cls: 0.05373 loss_box_reg: 0.2021  
loss_mask: 0.2388 loss_rpn_cls: 0.009774 loss_rpn_loc: 0.08385  
time: 0.1348 last_time: 0.1266 data_time: 0.0044 last_data_time:  
0.0044 lr: 0.00025 max_mem: 2657M  
[08/02 21:55:14 d2.utils.events]: eta: 0:09:32 iter: 5739  
total_loss: 0.5922 loss_cls: 0.05614 loss_box_reg: 0.2048
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loss_mask: 0.2339 loss_rpn_cls: 0.0107 loss_rpn_loc: 0.08788
time: 0.1348 last_time: 0.1377 data_time: 0.0045 last_data_time:
0.0053 lr: 0.00025 max_mem: 2657M
[08/02 21:55:17 d2.utils.events]: eta: 0:09:30 iter: 5759
total_loss: 0.6207 loss_cls: 0.05279 loss_box_reg: 0.2146
loss_mask: 0.24 loss_rpn_cls: 0.01173 loss_rpn_loc: 0.1006 time:
0.1348 last_time: 0.1331 data_time: 0.0052 last_data_time: 0.0051
lr: 0.00025 max_mem: 2657M
[08/02 21:55:20 d2.utils.events]: eta: 0:09:27 iter: 5779
total_loss: 0.5938 loss_cls: 0.05542 loss_box_reg: 0.2112
loss_mask: 0.2367 loss_rpn_cls: 0.01182 loss_rpn_loc: 0.08313
time: 0.1348 last_time: 0.1292 data_time: 0.0054 last_data_time:
0.0052 lr: 0.00025 max_mem: 2657M
[08/02 21:55:22 d2.utils.events]: eta: 0:09:24 iter: 5799
total_loss: 0.6575 loss_cls: 0.05712 loss_box_reg: 0.2364
loss_mask: 0.2384 loss_rpn_cls: 0.01671 loss_rpn_loc: 0.1026
time: 0.1348 last_time: 0.1341 data_time: 0.0051 last_data_time:
0.0051 lr: 0.00025 max_mem: 2657M
[08/02 21:55:25 d2.utils.events]: eta: 0:09:22 iter: 5819
total_loss: 0.6086 loss_cls: 0.05768 loss_box_reg: 0.2174
loss_mask: 0.2354 loss_rpn_cls: 0.01504 loss_rpn_loc: 0.09796
time: 0.1348 last_time: 0.1373 data_time: 0.0051 last_data_time:
0.0054 lr: 0.00025 max_mem: 2657M
[08/02 21:55:28 d2.utils.events]: eta: 0:09:19 iter: 5839
total_loss: 0.5928 loss_cls: 0.0534 loss_box_reg: 0.2002 loss_mask:
0.2315 loss_rpn_cls: 0.01356 loss_rpn_loc: 0.0895 time: 0.1348
last_time: 0.1372 data_time: 0.0050 last_data_time: 0.0047 lr:
0.00025 max_mem: 2657M
[08/02 21:55:30 d2.utils.events]: eta: 0:09:16 iter: 5859
total_loss: 0.6076 loss_cls: 0.05949 loss_box_reg: 0.2137
loss_mask: 0.2402 loss_rpn_cls: 0.01364 loss_rpn_loc: 0.09381
time: 0.1348 last_time: 0.1327 data_time: 0.0050 last_data_time:
0.0050 lr: 0.00025 max_mem: 2657M
[08/02 21:55:33 d2.utils.events]: eta: 0:09:13 iter: 5879
total_loss: 0.5962 loss_cls: 0.05646 loss_box_reg: 0.2097
loss_mask: 0.2357 loss_rpn_cls: 0.01082 loss_rpn_loc: 0.0912
time: 0.1348 last_time: 0.1268 data_time: 0.0048 last_data_time:
0.0046 lr: 0.00025 max_mem: 2657M
[08/02 21:55:36 d2.utils.events]: eta: 0:09:10 iter: 5899
total_loss: 0.6101 loss_cls: 0.05758 loss_box_reg: 0.2001
loss_mask: 0.24 loss_rpn_cls: 0.01198 loss_rpn_loc: 0.09305 time:
0.1348 last_time: 0.1336 data_time: 0.0047 last_data_time: 0.0051
lr: 0.00025 max_mem: 2657M
[08/02 21:55:38 d2.utils.events]: eta: 0:09:08 iter: 5919
total_loss: 0.6031 loss_cls: 0.05406 loss_box_reg: 0.2059
loss_mask: 0.2385 loss_rpn_cls: 0.01537 loss_rpn_loc: 0.08737
time: 0.1348 last_time: 0.1264 data_time: 0.0051 last_data_time:
0.0049 lr: 0.00025 max_mem: 2657M
[08/02 21:55:41 d2.utils.events]: eta: 0:09:05 iter: 5939
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total_loss: 0.5624 loss_cls: 0.05166 loss_box_reg: 0.1801
loss_mask: 0.2449 loss_rpn_cls: 0.009057 loss_rpn_loc: 0.08201
time: 0.1348 last_time: 0.1364 data_time: 0.0050 last_data_time:
0.0045 lr: 0.00025 max_mem: 2657M
[08/02 21:55:44 d2.utils.events]: eta: 0:09:02 iter: 5959
total_loss: 0.5838 loss_cls: 0.0586 loss_box_reg: 0.1914 loss_mask:
0.2313 loss_rpn_cls: 0.009427 loss_rpn_loc: 0.08751 time: 0.1348
last_time: 0.1345 data_time: 0.0048 last_data_time: 0.0052 lr:
0.00025 max_mem: 2657M
[08/02 21:55:47 d2.utils.events]: eta: 0:08:59 iter: 5979
total_loss: 0.5617 loss_cls: 0.05151 loss_box_reg: 0.1859
loss_mask: 0.2365 loss_rpn_cls: 0.01193 loss_rpn_loc: 0.08233
time: 0.1348 last_time: 0.1277 data_time: 0.0045 last_data_time:
0.0050 lr: 0.00025 max_mem: 2657M
[08/02 21:55:49 d2.utils.events]: eta: 0:08:57 iter: 5999
total_loss: 0.6118 loss_cls: 0.05728 loss_box_reg: 0.2054
loss_mask: 0.2309 loss_rpn_cls: 0.00826 loss_rpn_loc: 0.08634
time: 0.1348 last_time: 0.1379 data_time: 0.0049 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 21:55:52 d2.utils.events]: eta: 0:08:54 iter: 6019
total_loss: 0.5681 loss_cls: 0.05325 loss_box_reg: 0.1913
loss_mask: 0.2386 loss_rpn_cls: 0.01312 loss_rpn_loc: 0.08968
time: 0.1348 last_time: 0.1387 data_time: 0.0052 last_data_time:
0.0051 lr: 0.00025 max_mem: 2657M
[08/02 21:55:55 d2.utils.events]: eta: 0:08:52 iter: 6039
total_loss: 0.6003 loss_cls: 0.0515 loss_box_reg: 0.2085 loss_mask:
0.2382 loss_rpn_cls: 0.01102 loss_rpn_loc: 0.08698 time: 0.1348
last_time: 0.1289 data_time: 0.0051 last_data_time: 0.0047 lr:
0.00025 max_mem: 2657M
[08/02 21:55:57 d2.utils.events]: eta: 0:08:49 iter: 6059
total_loss: 0.6193 loss_cls: 0.05799 loss_box_reg: 0.2189
loss_mask: 0.2293 loss_rpn_cls: 0.01529 loss_rpn_loc: 0.09686
time: 0.1348 last_time: 0.1327 data_time: 0.0052 last_data_time:
0.0045 lr: 0.00025 max_mem: 2657M
[08/02 21:56:00 d2.utils.events]: eta: 0:08:46 iter: 6079
total_loss: 0.5836 loss_cls: 0.05229 loss_box_reg: 0.1926
loss_mask: 0.2378 loss_rpn_cls: 0.01171 loss_rpn_loc: 0.08718
time: 0.1348 last_time: 0.1354 data_time: 0.0049 last_data_time:
0.0050 lr: 0.00025 max_mem: 2657M
[08/02 21:56:03 d2.utils.events]: eta: 0:08:44 iter: 6099
total_loss: 0.5937 loss_cls: 0.05073 loss_box_reg: 0.193 loss_mask:
0.235 loss_rpn_cls: 0.01253 loss_rpn_loc: 0.08036 time: 0.1348
last_time: 0.1452 data_time: 0.0048 last_data_time: 0.0045 lr:
0.00025 max_mem: 2657M
[08/02 21:56:05 d2.utils.events]: eta: 0:08:41 iter: 6119
total_loss: 0.5377 loss_cls: 0.05347 loss_box_reg: 0.1737
loss_mask: 0.2238 loss_rpn_cls: 0.01416 loss_rpn_loc: 0.0814
time: 0.1348 last_time: 0.1305 data_time: 0.0046 last_data_time:
0.0051 lr: 0.00025 max_mem: 2657M
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[08/02 21:56:08 d2.utils.events]: eta: 0:08:39 iter: 6139
total_loss: 0.5672 loss_cls: 0.05431 loss_box_reg: 0.1889
loss_mask: 0.2306 loss_rpn_cls: 0.01499 loss_rpn_loc: 0.07932
time: 0.1348 last_time: 0.1363 data_time: 0.0051 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 21:56:11 d2.utils.events]: eta: 0:08:36 iter: 6159
total_loss: 0.5507 loss_cls: 0.04988 loss_box_reg: 0.1754
loss_mask: 0.2349 loss_rpn_cls: 0.01325 loss_rpn_loc: 0.08623
time: 0.1348 last_time: 0.1350 data_time: 0.0046 last_data_time:
0.0045 lr: 0.00025 max_mem: 2657M
[08/02 21:56:14 d2.utils.events]: eta: 0:08:33 iter: 6179
total_loss: 0.5549 loss_cls: 0.0515 loss_box_reg: 0.187 loss_mask:
0.2285 loss_rpn_cls: 0.01455 loss_rpn_loc: 0.08803 time: 0.1348
last_time: 0.1389 data_time: 0.0048 last_data_time: 0.0048 lr:
0.00025 max_mem: 2657M
[08/02 21:56:16 d2.utils.events]: eta: 0:08:31 iter: 6199
total_loss: 0.6043 loss_cls: 0.05336 loss_box_reg: 0.201 loss_mask:
0.2332 loss_rpn_cls: 0.01439 loss_rpn_loc: 0.08396 time: 0.1347
last_time: 0.1312 data_time: 0.0046 last_data_time: 0.0043 lr:
0.00025 max_mem: 2657M
[08/02 21:56:19 d2.utils.events]: eta: 0:08:28 iter: 6219
total_loss: 0.5651 loss_cls: 0.05336 loss_box_reg: 0.1861
loss_mask: 0.2271 loss_rpn_cls: 0.01349 loss_rpn_loc: 0.08216
time: 0.1348 last_time: 0.1408 data_time: 0.0051 last_data_time:
0.0051 lr: 0.00025 max_mem: 2657M
[08/02 21:56:22 d2.utils.events]: eta: 0:08:26 iter: 6239
total_loss: 0.5689 loss_cls: 0.04681 loss_box_reg: 0.1889
loss_mask: 0.2294 loss_rpn_cls: 0.008746 loss_rpn_loc: 0.08849
time: 0.1347 last_time: 0.1276 data_time: 0.0052 last_data_time:
0.0052 lr: 0.00025 max_mem: 2657M
[08/02 21:56:24 d2.utils.events]: eta: 0:08:23 iter: 6259
total_loss: 0.563 loss_cls: 0.05108 loss_box_reg: 0.1929 loss_mask:
0.2354 loss_rpn_cls: 0.01021 loss_rpn_loc: 0.08508 time: 0.1347
last_time: 0.1333 data_time: 0.0051 last_data_time: 0.0049 lr:
0.00025 max_mem: 2657M
[08/02 21:56:27 d2.utils.events]: eta: 0:08:21 iter: 6279
total_loss: 0.5517 loss_cls: 0.05108 loss_box_reg: 0.1794
loss_mask: 0.2257 loss_rpn_cls: 0.01319 loss_rpn_loc: 0.08203
time: 0.1347 last_time: 0.1380 data_time: 0.0051 last_data_time:
0.0050 lr: 0.00025 max_mem: 2657M
[08/02 21:56:30 d2.utils.events]: eta: 0:08:18 iter: 6299
total_loss: 0.5536 loss_cls: 0.05073 loss_box_reg: 0.1766
loss_mask: 0.2307 loss_rpn_cls: 0.01054 loss_rpn_loc: 0.0863
time: 0.1347 last_time: 0.1291 data_time: 0.0051 last_data_time:
0.0049 lr: 0.00025 max_mem: 2657M
[08/02 21:56:33 d2.utils.events]: eta: 0:08:15 iter: 6319
total_loss: 0.5416 loss_cls: 0.05286 loss_box_reg: 0.1649
loss_mask: 0.229 loss_rpn_cls: 0.01126 loss_rpn_loc: 0.08093
time: 0.1348 last_time: 0.3396 data_time: 0.0048 last_data_time:
0.0051 lr: 0.00025 max_mem: 2657M
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[08/02 21:56:35 d2.utils.events]: eta: 0:08:13 iter: 6339
total_loss: 0.5574 loss_cls: 0.05436 loss_box_reg: 0.1717
loss_mask: 0.231 loss_rpn_cls: 0.01403 loss_rpn_loc: 0.08336
time: 0.1348 last_time: 0.1244 data_time: 0.0048 last_data_time:
0.0052 lr: 0.00025 max_mem: 2657M
[08/02 21:56:38 d2.utils.events]: eta: 0:08:10 iter: 6359
total_loss: 0.5683 loss_cls: 0.05224 loss_box_reg: 0.1895
loss_mask: 0.2234 loss_rpn_cls: 0.009283 loss_rpn_loc: 0.09056
time: 0.1348 last_time: 0.1391 data_time: 0.0047 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 21:56:41 d2.utils.events]: eta: 0:08:08 iter: 6379
total_loss: 0.5068 loss_cls: 0.05077 loss_box_reg: 0.164 loss_mask:
0.2168 loss_rpn_cls: 0.0109 loss_rpn_loc: 0.07668 time: 0.1348
last_time: 0.1314 data_time: 0.0048 last_data_time: 0.0048 lr:
0.00025 max_mem: 2657M
[08/02 21:56:43 d2.utils.events]: eta: 0:08:05 iter: 6399
total_loss: 0.582 loss_cls: 0.05579 loss_box_reg: 0.1962 loss_mask:
0.2271 loss_rpn_cls: 0.009312 loss_rpn_loc: 0.0828 time: 0.1348
last_time: 0.1355 data_time: 0.0047 last_data_time: 0.0049 lr:
0.00025 max_mem: 2657M
[08/02 21:56:46 d2.utils.events]: eta: 0:08:02 iter: 6419
total_loss: 0.5424 loss_cls: 0.0488 loss_box_reg: 0.1786 loss_mask:
0.2234 loss_rpn_cls: 0.01189 loss_rpn_loc: 0.08845 time: 0.1348
last_time: 0.1388 data_time: 0.0054 last_data_time: 0.0047 lr:
0.00025 max_mem: 2657M
[08/02 21:56:49 d2.utils.events]: eta: 0:08:00 iter: 6439
total_loss: 0.5335 loss_cls: 0.04721 loss_box_reg: 0.1767
loss_mask: 0.2241 loss_rpn_cls: 0.008987 loss_rpn_loc: 0.07471
time: 0.1348 last_time: 0.1389 data_time: 0.0048 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 21:56:52 d2.utils.events]: eta: 0:07:57 iter: 6459
total_loss: 0.5491 loss_cls: 0.05334 loss_box_reg: 0.1785
loss_mask: 0.229 loss_rpn_cls: 0.01308 loss_rpn_loc: 0.08324
time: 0.1348 last_time: 0.1273 data_time: 0.0049 last_data_time:
0.0045 lr: 0.00025 max_mem: 2657M
[08/02 21:56:54 d2.utils.events]: eta: 0:07:54 iter: 6479
total_loss: 0.5379 loss_cls: 0.05123 loss_box_reg: 0.1735
loss_mask: 0.2222 loss_rpn_cls: 0.01112 loss_rpn_loc: 0.0853
time: 0.1348 last_time: 0.1336 data_time: 0.0048 last_data_time:
0.0050 lr: 0.00025 max_mem: 2657M
[08/02 21:56:57 d2.utils.events]: eta: 0:07:52 iter: 6499
total_loss: 0.5316 loss_cls: 0.0461 loss_box_reg: 0.1629 loss_mask:
0.2204 loss_rpn_cls: 0.008563 loss_rpn_loc: 0.07539 time: 0.1348
last_time: 0.1503 data_time: 0.0049 last_data_time: 0.0044 lr:
0.00025 max_mem: 2657M
[08/02 21:57:00 d2.utils.events]: eta: 0:07:49 iter: 6519
total_loss: 0.5515 loss_cls: 0.05272 loss_box_reg: 0.1829
loss_mask: 0.2174 loss_rpn_cls: 0.009383 loss_rpn_loc: 0.08035
time: 0.1348 last_time: 0.1284 data_time: 0.0048 last_data_time:
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0.0046 lr: 0.00025 max_mem: 2657M
[08/02 21:57:02 d2.utils.events]: eta: 0:07:46 iter: 6539
total_loss: 0.5675 loss_cls: 0.04662 loss_box_reg: 0.1918
loss_mask: 0.2242 loss_rpn_cls: 0.01265 loss_rpn_loc: 0.07998
time: 0.1348 last_time: 0.1368 data_time: 0.0047 last_data_time:
0.0046 lr: 0.00025 max_mem: 2657M
[08/02 21:57:05 d2.utils.events]: eta: 0:07:44 iter: 6559
total_loss: 0.5522 loss_cls: 0.04678 loss_box_reg: 0.1878
loss_mask: 0.2237 loss_rpn_cls: 0.01361 loss_rpn_loc: 0.08716
time: 0.1348 last_time: 0.1343 data_time: 0.0048 last_data_time:
0.0050 lr: 0.00025 max_mem: 2657M
[08/02 21:57:08 d2.utils.events]: eta: 0:07:42 iter: 6579
total_loss: 0.5419 loss_cls: 0.04762 loss_box_reg: 0.176 loss_mask:
0.2272 loss_rpn_cls: 0.01234 loss_rpn_loc: 0.08217 time: 0.1348
last_time: 0.1357 data_time: 0.0049 last_data_time: 0.0044 lr:
0.00025 max_mem: 2657M
[08/02 21:57:11 d2.utils.events]: eta: 0:07:39 iter: 6599
total_loss: 0.5508 loss_cls: 0.04959 loss_box_reg: 0.1823
loss_mask: 0.2297 loss_rpn_cls: 0.01274 loss_rpn_loc: 0.08413
time: 0.1348 last_time: 0.1422 data_time: 0.0050 last_data_time:
0.0048 lr: 0.00025 max_mem: 2657M
[08/02 21:57:13 d2.utils.events]: eta: 0:07:37 iter: 6619
total_loss: 0.5076 loss_cls: 0.0446 loss_box_reg: 0.1554 loss_mask:
0.2203 loss_rpn_cls: 0.01141 loss_rpn_loc: 0.0749 time: 0.1348
last_time: 0.1324 data_time: 0.0049 last_data_time: 0.0049 lr:
0.00025 max_mem: 2657M
[08/02 21:57:16 d2.utils.events]: eta: 0:07:34 iter: 6639
total_loss: 0.5341 loss_cls: 0.04994 loss_box_reg: 0.1724
loss_mask: 0.2227 loss_rpn_cls: 0.01484 loss_rpn_loc: 0.07982
time: 0.1348 last_time: 0.1352 data_time: 0.0054 last_data_time:
0.0055 lr: 0.00025 max_mem: 2657M
[08/02 21:57:19 d2.utils.events]: eta: 0:07:32 iter: 6659
total_loss: 0.5384 loss_cls: 0.05112 loss_box_reg: 0.1649
loss_mask: 0.2257 loss_rpn_cls: 0.00959 loss_rpn_loc: 0.08037
time: 0.1348 last_time: 0.1435 data_time: 0.0051 last_data_time:
0.0045 lr: 0.00025 max_mem: 2657M
[08/02 21:57:22 d2.utils.events]: eta: 0:07:29 iter: 6679
total_loss: 0.5581 loss_cls: 0.04824 loss_box_reg: 0.182 loss_mask:
0.2281 loss_rpn_cls: 0.01132 loss_rpn_loc: 0.08463 time: 0.1348
last_time: 0.1327 data_time: 0.0051 last_data_time: 0.0055 lr:
0.00025 max_mem: 2657M
[08/02 21:57:25 d2.utils.events]: eta: 0:07:27 iter: 6699
total_loss: 0.524 loss_cls: 0.0452 loss_box_reg: 0.1676 loss_mask:
0.2151 loss_rpn_cls: 0.01283 loss_rpn_loc: 0.07455 time: 0.1348
last_time: 0.1366 data_time: 0.0053 last_data_time: 0.0048 lr:
0.00025 max_mem: 2657M
[08/02 21:57:27 d2.utils.events]: eta: 0:07:24 iter: 6719
total_loss: 0.5282 loss_cls: 0.04617 loss_box_reg: 0.161 loss_mask:
0.2134 loss_rpn_cls: 0.01538 loss_rpn_loc: 0.08099 time: 0.1348
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last_time: 0.1385 data_time: 0.0051 last_data_time: 0.0057 lr:  
0.00025 max_mem: 2657M  
[08/02 21:57:30 d2.utils.events]: eta: 0:07:22 iter: 6739  
total_loss: 0.519 loss_cls: 0.0466 loss_box_reg: 0.1607 loss_mask:  
0.2293 loss_rpn_cls: 0.01112 loss_rpn_loc: 0.08376 time: 0.1348  
last_time: 0.1356 data_time: 0.0050 last_data_time: 0.0047 lr:  
0.00025 max_mem: 2657M  
[08/02 21:57:33 d2.utils.events]: eta: 0:07:19 iter: 6759  
total_loss: 0.5677 loss_cls: 0.04727 loss_box_reg: 0.1921  
loss_mask: 0.2209 loss_rpn_cls: 0.009886 loss_rpn_loc: 0.084  
time: 0.1348 last_time: 0.1385 data_time: 0.0048 last_data_time:  
0.0048 lr: 0.00025 max_mem: 2657M  
[08/02 21:57:35 d2.utils.events]: eta: 0:07:17 iter: 6779  
total_loss: 0.5669 loss_cls: 0.04914 loss_box_reg: 0.189 loss_mask:  
0.2214 loss_rpn_cls: 0.0146 loss_rpn_loc: 0.09177 time: 0.1348  
last_time: 0.1328 data_time: 0.0047 last_data_time: 0.0052 lr:  
0.00025 max_mem: 2657M  
[08/02 21:57:38 d2.utils.events]: eta: 0:07:14 iter: 6799  
total_loss: 0.5609 loss_cls: 0.04573 loss_box_reg: 0.1909  
loss_mask: 0.2291 loss_rpn_cls: 0.01208 loss_rpn_loc: 0.09103  
time: 0.1348 last_time: 0.1389 data_time: 0.0049 last_data_time:  
0.0049 lr: 0.00025 max_mem: 2657M  
[08/02 21:57:41 d2.utils.events]: eta: 0:07:11 iter: 6819  
total_loss: 0.5607 loss_cls: 0.04799 loss_box_reg: 0.1845  
loss_mask: 0.2151 loss_rpn_cls: 0.01029 loss_rpn_loc: 0.08939  
time: 0.1348 last_time: 0.1365 data_time: 0.0047 last_data_time:  
0.0045 lr: 0.00025 max_mem: 2657M  
[08/02 21:57:44 d2.utils.events]: eta: 0:07:09 iter: 6839  
total_loss: 0.5818 loss_cls: 0.04925 loss_box_reg: 0.19 loss_mask:  
0.2299 loss_rpn_cls: 0.01093 loss_rpn_loc: 0.09054 time: 0.1348  
last_time: 0.1373 data_time: 0.0047 last_data_time: 0.0049 lr:  
0.00025 max_mem: 2657M  
[08/02 21:57:46 d2.utils.events]: eta: 0:07:06 iter: 6859  
total_loss: 0.5716 loss_cls: 0.04518 loss_box_reg: 0.1912  
loss_mask: 0.2267 loss_rpn_cls: 0.01492 loss_rpn_loc: 0.08879  
time: 0.1349 last_time: 0.1369 data_time: 0.0052 last_data_time:  
0.0053 lr: 0.00025 max_mem: 2657M  
[08/02 21:57:49 d2.utils.events]: eta: 0:07:04 iter: 6879  
total_loss: 0.5219 loss_cls: 0.04873 loss_box_reg: 0.1589  
loss_mask: 0.2168 loss_rpn_cls: 0.00955 loss_rpn_loc: 0.08257  
time: 0.1349 last_time: 0.1313 data_time: 0.0052 last_data_time:  
0.0051 lr: 0.00025 max_mem: 2657M  
[08/02 21:57:52 d2.utils.events]: eta: 0:07:01 iter: 6899  
total_loss: 0.545 loss_cls: 0.05064 loss_box_reg: 0.1805 loss_mask:  
0.2233 loss_rpn_cls: 0.01278 loss_rpn_loc: 0.08626 time: 0.1349  
last_time: 0.1280 data_time: 0.0047 last_data_time: 0.0052 lr:  
0.00025 max_mem: 2657M  
[08/02 21:57:55 d2.utils.events]: eta: 0:06:58 iter: 6919  
total_loss: 0.5476 loss_cls: 0.05249 loss_box_reg: 0.1788
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loss_mask: 0.217 loss_rpn_cls: 0.01167 loss_rpn_loc: 0.08416
time: 0.1349 last_time: 0.1344 data_time: 0.0045 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 21:57:57 d2.utils.events]: eta: 0:06:55 iter: 6939
total_loss: 0.5527 loss_cls: 0.05226 loss_box_reg: 0.1873
loss_mask: 0.2263 loss_rpn_cls: 0.01469 loss_rpn_loc: 0.08368
time: 0.1349 last_time: 0.1375 data_time: 0.0045 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 21:58:00 d2.utils.events]: eta: 0:06:52 iter: 6959
total_loss: 0.5045 loss_cls: 0.04471 loss_box_reg: 0.159 loss_mask:
0.2183 loss_rpn_cls: 0.0101 loss_rpn_loc: 0.07871 time: 0.1349
last_time: 0.1334 data_time: 0.0045 last_data_time: 0.0046 lr:
0.00025 max_mem: 2657M
[08/02 21:58:03 d2.utils.events]: eta: 0:06:49 iter: 6979
total_loss: 0.5263 loss_cls: 0.04334 loss_box_reg: 0.1603
loss_mask: 0.2147 loss_rpn_cls: 0.009584 loss_rpn_loc: 0.08235
time: 0.1348 last_time: 0.1254 data_time: 0.0047 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 21:58:05 d2.utils.events]: eta: 0:06:47 iter: 6999
total_loss: 0.559 loss_cls: 0.04838 loss_box_reg: 0.1789 loss_mask:
0.2192 loss_rpn_cls: 0.01153 loss_rpn_loc: 0.0859 time: 0.1348
last_time: 0.1222 data_time: 0.0046 last_data_time: 0.0047 lr:
0.00025 max_mem: 2657M
[08/02 21:58:08 d2.utils.events]: eta: 0:06:44 iter: 7019
total_loss: 0.5224 loss_cls: 0.04525 loss_box_reg: 0.1583
loss_mask: 0.2095 loss_rpn_cls: 0.01071 loss_rpn_loc: 0.08116
time: 0.1348 last_time: 0.1354 data_time: 0.0047 last_data_time:
0.0044 lr: 0.00025 max_mem: 2657M
[08/02 21:58:11 d2.utils.events]: eta: 0:06:41 iter: 7039
total_loss: 0.527 loss_cls: 0.04872 loss_box_reg: 0.1722 loss_mask:
0.214 loss_rpn_cls: 0.01185 loss_rpn_loc: 0.07701 time: 0.1348
last_time: 0.1384 data_time: 0.0046 last_data_time: 0.0047 lr:
0.00025 max_mem: 2657M
[08/02 21:58:13 d2.utils.events]: eta: 0:06:38 iter: 7059
total_loss: 0.4992 loss_cls: 0.04026 loss_box_reg: 0.1691
loss_mask: 0.2134 loss_rpn_cls: 0.01323 loss_rpn_loc: 0.07642
time: 0.1348 last_time: 0.1358 data_time: 0.0046 last_data_time:
0.0045 lr: 0.00025 max_mem: 2657M
[08/02 21:58:16 d2.utils.events]: eta: 0:06:36 iter: 7079
total_loss: 0.5382 loss_cls: 0.04904 loss_box_reg: 0.1695
loss_mask: 0.2183 loss_rpn_cls: 0.01213 loss_rpn_loc: 0.07998
time: 0.1348 last_time: 0.1487 data_time: 0.0048 last_data_time:
0.0053 lr: 0.00025 max_mem: 2657M
[08/02 21:58:19 d2.utils.events]: eta: 0:06:33 iter: 7099
total_loss: 0.5079 loss_cls: 0.0438 loss_box_reg: 0.1452 loss_mask:
0.2071 loss_rpn_cls: 0.008825 loss_rpn_loc: 0.07419 time: 0.1348
last_time: 0.1375 data_time: 0.0045 last_data_time: 0.0041 lr:
0.00025 max_mem: 2657M
[08/02 21:58:22 d2.utils.events]: eta: 0:06:30 iter: 7119
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total_loss: 0.506 loss_cls: 0.04494 loss_box_reg: 0.1635 loss_mask: 0.2067 loss_rpn_cls: 0.01298 loss_rpn_loc: 0.07186 time: 0.1348 last_time: 0.1376 data_time: 0.0046 last_data_time: 0.0048 lr: 0.00025 max_mem: 2657M [08/02 21:58:24 d2.utils.events]: eta: 0:06:27 iter: 7139 total_loss: 0.5285 loss_cls: 0.04753 loss_box_reg: 0.1676 loss_mask: 0.2198 loss_rpn_cls: 0.006814 loss_rpn_loc: 0.07935 time: 0.1348 last_time: 0.1307 data_time: 0.0046 last_data_time: 0.0044 lr: 0.00025 max_mem: 2657M [08/02 21:58:27 d2.utils.events]: eta: 0:06:25 iter: 7159 total_loss: 0.5089 loss_cls: 0.04775 loss_box_reg: 0.1568 loss_mask: 0.2107 loss_rpn_cls: 0.01675 loss_rpn_loc: 0.07799 time: 0.1348 last_time: 0.1378 data_time: 0.0047 last_data_time: 0.0046 lr: 0.00025 max_mem: 2657M [08/02 21:58:29 d2.utils.events]: eta: 0:06:22 iter: 7179 total_loss: 0.5453 loss_cls: 0.04798 loss_box_reg: 0.1782 loss_mask: 0.2209 loss_rpn_cls: 0.009276 loss_rpn_loc: 0.08932 time: 0.1348 last_time: 0.1247 data_time: 0.0046 last_data_time: 0.0043 lr: 0.00025 max_mem: 2657M [08/02 21:58:32 d2.utils.events]: eta: 0:06:19 iter: 7199 total_loss: 0.5685 loss_cls: 0.04752 loss_box_reg: 0.1971 loss_mask: 0.225 loss_rpn_cls: 0.01217 loss_rpn_loc: 0.09068 time: 0.1348 last_time: 0.1356 data_time: 0.0048 last_data_time: 0.0044 lr: 0.00025 max_mem: 2657M [08/02 21:58:35 d2.utils.events]: eta: 0:06:16 iter: 7219 total_loss: 0.5258 loss_cls: 0.04192 loss_box_reg: 0.174 loss_mask: 0.2179 loss_rpn_cls: 0.01392 loss_rpn_loc: 0.08092 time: 0.1348 last_time: 0.1270 data_time: 0.0046 last_data_time: 0.0049 lr: 0.00025 max_mem: 2657M [08/02 21:58:38 d2.utils.events]: eta: 0:06:14 iter: 7239 total_loss: 0.4815 loss_cls: 0.04039 loss_box_reg: 0.1463 loss_mask: 0.2157 loss_rpn_cls: 0.01094 loss_rpn_loc: 0.07389 time: 0.1348 last_time: 0.1275 data_time: 0.0047 last_data_time: 0.0044 lr: 0.00025 max_mem: 2657M [08/02 21:58:40 d2.utils.events]: eta: 0:06:11 iter: 7259 total_loss: 0.5201 loss_cls: 0.04434 loss_box_reg: 0.1696 loss_mask: 0.2129 loss_rpn_cls: 0.01452 loss_rpn_loc: 0.07643 time: 0.1348 last_time: 0.1382 data_time: 0.0047 last_data_time: 0.0043 lr: 0.00025 max_mem: 2657M [08/02 21:58:43 d2.utils.events]: eta: 0:06:08 iter: 7279 total_loss: 0.4807 loss_cls: 0.03888 loss_box_reg: 0.151 loss_mask: 0.2113 loss_rpn_cls: 0.008672 loss_rpn_loc: 0.07783 time: 0.1348 last_time: 0.1335 data_time: 0.0045 last_data_time: 0.0048 lr: 0.00025 max_mem: 2657M [08/02 21:58:46 d2.utils.events]: eta: 0:06:05 iter: 7299 total_loss: 0.4998 loss_cls: 0.04378 loss_box_reg: 0.1642 loss_mask: 0.2128 loss_rpn_cls: 0.01139 loss_rpn_loc: 0.07053 time: 0.1348 last_time: 0.1372 data_time: 0.0045 last_data_time: 0.0045 lr: 0.00025 max_mem: 2657M
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[08/02 21:58:48 d2.utils.events]: eta: 0:06:02 iter: 7319
total_loss: 0.4827 loss_cls: 0.04088 loss_box_reg: 0.1407
loss_mask: 0.2096 loss_rpn_cls: 0.008545 loss_rpn_loc: 0.07293
time: 0.1348 last_time: 0.1366 data_time: 0.0046 last_data_time:
0.0044 lr: 0.00025 max_mem: 2657M
[08/02 21:58:51 d2.utils.events]: eta: 0:05:59 iter: 7339
total_loss: 0.4815 loss_cls: 0.04321 loss_box_reg: 0.1416
loss_mask: 0.2098 loss_rpn_cls: 0.01061 loss_rpn_loc: 0.0754
time: 0.1348 last_time: 0.1381 data_time: 0.0046 last_data_time:
0.0051 lr: 0.00025 max_mem: 2657M
[08/02 21:58:54 d2.utils.events]: eta: 0:05:57 iter: 7359
total_loss: 0.5279 loss_cls: 0.04644 loss_box_reg: 0.1737
loss_mask: 0.215 loss_rpn_cls: 0.01108 loss_rpn_loc: 0.0874 time:
0.1348 last_time: 0.1361 data_time: 0.0047 last_data_time: 0.0044
lr: 0.00025 max_mem: 2657M
[08/02 21:58:56 d2.utils.events]: eta: 0:05:54 iter: 7379
total_loss: 0.5129 loss_cls: 0.04462 loss_box_reg: 0.158 loss_mask:
0.2079 loss_rpn_cls: 0.009318 loss_rpn_loc: 0.07168 time: 0.1348
last_time: 0.1401 data_time: 0.0048 last_data_time: 0.0049 lr:
0.00025 max_mem: 2657M
[08/02 21:58:59 d2.utils.events]: eta: 0:05:51 iter: 7399
total_loss: 0.4658 loss_cls: 0.03928 loss_box_reg: 0.1399
loss_mask: 0.2095 loss_rpn_cls: 0.008379 loss_rpn_loc: 0.07359
time: 0.1348 last_time: 0.1317 data_time: 0.0046 last_data_time:
0.0052 lr: 0.00025 max_mem: 2657M
[08/02 21:59:02 d2.utils.events]: eta: 0:05:48 iter: 7419
total_loss: 0.4907 loss_cls: 0.04244 loss_box_reg: 0.1512
loss_mask: 0.2136 loss_rpn_cls: 0.008078 loss_rpn_loc: 0.0759
time: 0.1348 last_time: 0.1304 data_time: 0.0047 last_data_time:
0.0044 lr: 0.00025 max_mem: 2657M
[08/02 21:59:04 d2.utils.events]: eta: 0:05:46 iter: 7439
total_loss: 0.4873 loss_cls: 0.04175 loss_box_reg: 0.1503
loss_mask: 0.2106 loss_rpn_cls: 0.01181 loss_rpn_loc: 0.07082
time: 0.1348 last_time: 0.1369 data_time: 0.0050 last_data_time:
0.0052 lr: 0.00025 max_mem: 2657M
[08/02 21:59:07 d2.utils.events]: eta: 0:05:43 iter: 7459
total_loss: 0.485 loss_cls: 0.03955 loss_box_reg: 0.1357 loss_mask:
0.2141 loss_rpn_cls: 0.01071 loss_rpn_loc: 0.06634 time: 0.1348
last_time: 0.1335 data_time: 0.0050 last_data_time: 0.0049 lr:
0.00025 max_mem: 2657M
[08/02 21:59:10 d2.utils.events]: eta: 0:05:40 iter: 7479
total_loss: 0.461 loss_cls: 0.04162 loss_box_reg: 0.1443 loss_mask:
0.2042 loss_rpn_cls: 0.01058 loss_rpn_loc: 0.06626 time: 0.1348
last_time: 0.1312 data_time: 0.0047 last_data_time: 0.0045 lr:
0.00025 max_mem: 2657M
[08/02 21:59:13 d2.utils.events]: eta: 0:05:37 iter: 7499
total_loss: 0.4823 loss_cls: 0.04416 loss_box_reg: 0.1456
loss_mask: 0.2164 loss_rpn_cls: 0.008259 loss_rpn_loc: 0.07723
time: 0.1348 last_time: 0.1336 data_time: 0.0045 last_data_time:
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0.0045 lr: 0.00025 max_mem: 2657M
[08/02 21:59:15 d2.utils.events]: eta: 0:05:34 iter: 7519
total_loss: 0.471 loss_cls: 0.04049 loss_box_reg: 0.1411 loss_mask:
0.2062 loss_rpn_cls: 0.009889 loss_rpn_loc: 0.07052 time: 0.1348
last_time: 0.1318 data_time: 0.0045 last_data_time: 0.0045 lr:
0.00025 max_mem: 2657M
[08/02 21:59:18 d2.utils.events]: eta: 0:05:32 iter: 7539
total_loss: 0.5038 loss_cls: 0.04155 loss_box_reg: 0.1553
loss_mask: 0.2141 loss_rpn_cls: 0.01224 loss_rpn_loc: 0.07791
time: 0.1348 last_time: 0.1479 data_time: 0.0051 last_data_time:
0.0058 lr: 0.00025 max_mem: 2657M
[08/02 21:59:21 d2.utils.events]: eta: 0:05:29 iter: 7559
total_loss: 0.4881 loss_cls: 0.03824 loss_box_reg: 0.1549
loss_mask: 0.2115 loss_rpn_cls: 0.008376 loss_rpn_loc: 0.0857
time: 0.1348 last_time: 0.1295 data_time: 0.0048 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 21:59:23 d2.utils.events]: eta: 0:05:26 iter: 7579
total_loss: 0.4745 loss_cls: 0.04049 loss_box_reg: 0.1451
loss_mask: 0.2068 loss_rpn_cls: 0.01157 loss_rpn_loc: 0.07904
time: 0.1348 last_time: 0.1290 data_time: 0.0049 last_data_time:
0.0045 lr: 0.00025 max_mem: 2657M
[08/02 21:59:26 d2.utils.events]: eta: 0:05:23 iter: 7599
total_loss: 0.5005 loss_cls: 0.04151 loss_box_reg: 0.157 loss_mask:
0.2176 loss_rpn_cls: 0.01553 loss_rpn_loc: 0.07528 time: 0.1348
last_time: 0.1322 data_time: 0.0046 last_data_time: 0.0045 lr:
0.00025 max_mem: 2657M
[08/02 21:59:29 d2.utils.events]: eta: 0:05:20 iter: 7619
total_loss: 0.4755 loss_cls: 0.03986 loss_box_reg: 0.1485
loss_mask: 0.2095 loss_rpn_cls: 0.01255 loss_rpn_loc: 0.07804
time: 0.1348 last_time: 0.1384 data_time: 0.0048 last_data_time:
0.0045 lr: 0.00025 max_mem: 2657M
[08/02 21:59:31 d2.utils.events]: eta: 0:05:17 iter: 7639
total_loss: 0.4948 loss_cls: 0.04223 loss_box_reg: 0.1556
loss_mask: 0.2142 loss_rpn_cls: 0.007574 loss_rpn_loc: 0.07484
time: 0.1348 last_time: 0.1269 data_time: 0.0048 last_data_time:
0.0046 lr: 0.00025 max_mem: 2657M
[08/02 21:59:34 d2.utils.events]: eta: 0:05:15 iter: 7659
total_loss: 0.4753 loss_cls: 0.04345 loss_box_reg: 0.1456
loss_mask: 0.2092 loss_rpn_cls: 0.01284 loss_rpn_loc: 0.07086
time: 0.1348 last_time: 0.1226 data_time: 0.0045 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 21:59:37 d2.utils.events]: eta: 0:05:12 iter: 7679
total_loss: 0.4663 loss_cls: 0.03806 loss_box_reg: 0.1357
loss_mask: 0.2052 loss_rpn_cls: 0.01005 loss_rpn_loc: 0.07146
time: 0.1348 last_time: 0.1326 data_time: 0.0045 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 21:59:40 d2.utils.events]: eta: 0:05:09 iter: 7699
total_loss: 0.4805 loss_cls: 0.03927 loss_box_reg: 0.1595
loss_mask: 0.2069 loss_rpn_cls: 0.0104 loss_rpn_loc: 0.07076
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time: 0.1348 last_time: 0.1339 data_time: 0.0049 last_data_time:  
0.0042 lr: 0.00025 max_mem: 2657M  
[08/02 21:59:42 d2.utils.events]: eta: 0:05:06 iter: 7719  
total_loss: 0.5101 loss_cls: 0.04612 loss_box_reg: 0.1646  
loss_mask: 0.2079 loss_rpn_cls: 0.01229 loss_rpn_loc: 0.07621  
time: 0.1348 last_time: 0.1459 data_time: 0.0045 last_data_time:  
0.0043 lr: 0.00025 max_mem: 2657M  
[08/02 21:59:45 d2.utils.events]: eta: 0:05:04 iter: 7739  
total_loss: 0.4728 loss_cls: 0.03562 loss_box_reg: 0.1397  
loss_mask: 0.2054 loss_rpn_cls: 0.01033 loss_rpn_loc: 0.0686  
time: 0.1348 last_time: 0.1378 data_time: 0.0046 last_data_time:  
0.0045 lr: 0.00025 max_mem: 2657M  
[08/02 21:59:48 d2.utils.events]: eta: 0:05:01 iter: 7759  
total_loss: 0.462 loss_cls: 0.03625 loss_box_reg: 0.1405 loss_mask:  
0.2014 loss_rpn_cls: 0.007507 loss_rpn_loc: 0.07234 time: 0.1348  
last_time: 0.1342 data_time: 0.0046 last_data_time: 0.0051 lr:  
0.00025 max_mem: 2657M  
[08/02 21:59:50 d2.utils.events]: eta: 0:04:58 iter: 7779  
total_loss: 0.4975 loss_cls: 0.04389 loss_box_reg: 0.162 loss_mask:  
0.2065 loss_rpn_cls: 0.01197 loss_rpn_loc: 0.07523 time: 0.1348  
last_time: 0.1254 data_time: 0.0051 last_data_time: 0.0050 lr:  
0.00025 max_mem: 2657M  
[08/02 21:59:53 d2.utils.events]: eta: 0:04:55 iter: 7799  
total_loss: 0.4928 loss_cls: 0.03959 loss_box_reg: 0.1681  
loss_mask: 0.2073 loss_rpn_cls: 0.01385 loss_rpn_loc: 0.07569  
time: 0.1348 last_time: 0.1399 data_time: 0.0047 last_data_time:  
0.0061 lr: 0.00025 max_mem: 2657M  
[08/02 21:59:56 d2.utils.events]: eta: 0:04:52 iter: 7819  
total_loss: 0.4603 loss_cls: 0.03775 loss_box_reg: 0.1466  
loss_mask: 0.1969 loss_rpn_cls: 0.009655 loss_rpn_loc: 0.07131  
time: 0.1348 last_time: 0.1265 data_time: 0.0045 last_data_time:  
0.0045 lr: 0.00025 max_mem: 2657M  
[08/02 21:59:58 d2.utils.events]: eta: 0:04:50 iter: 7839  
total_loss: 0.463 loss_cls: 0.03995 loss_box_reg: 0.1382 loss_mask:  
0.2106 loss_rpn_cls: 0.008887 loss_rpn_loc: 0.07575 time: 0.1348  
last_time: 0.1265 data_time: 0.0045 last_data_time: 0.0041 lr:  
0.00025 max_mem: 2657M  
[08/02 22:00:01 d2.utils.events]: eta: 0:04:47 iter: 7859  
total_loss: 0.4605 loss_cls: 0.0379 loss_box_reg: 0.1472 loss_mask:  
0.2098 loss_rpn_cls: 0.01042 loss_rpn_loc: 0.07511 time: 0.1348  
last_time: 0.1487 data_time: 0.0046 last_data_time: 0.0051 lr:  
0.00025 max_mem: 2657M  
[08/02 22:00:04 d2.utils.events]: eta: 0:04:44 iter: 7879  
total_loss: 0.4818 loss_cls: 0.04011 loss_box_reg: 0.1455  
loss_mask: 0.2035 loss_rpn_cls: 0.01022 loss_rpn_loc: 0.07619  
time: 0.1348 last_time: 0.1355 data_time: 0.0047 last_data_time:  
0.0045 lr: 0.00025 max_mem: 2657M  
[08/02 22:00:07 d2.utils.events]: eta: 0:04:42 iter: 7899  
total_loss: 0.4948 loss_cls: 0.03784 loss_box_reg: 0.15 loss_mask:
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0.2054 loss_rpn_cls: 0.01049 loss_rpn_loc: 0.0736 time: 0.1348
last_time: 0.1280 data_time: 0.0044 last_data_time: 0.0043 lr:
0.00025 max_mem: 2657M
[08/02 22:00:09 d2.utils.events]: eta: 0:04:39 iter: 7919
total_loss: 0.5089 loss_cls: 0.03941 loss_box_reg: 0.1629
loss_mask: 0.2041 loss_rpn_cls: 0.01197 loss_rpn_loc: 0.08068
time: 0.1348 last_time: 0.1174 data_time: 0.0046 last_data_time:
0.0042 lr: 0.00025 max_mem: 2657M
[08/02 22:00:12 d2.utils.events]: eta: 0:04:36 iter: 7939
total_loss: 0.5095 loss_cls: 0.04349 loss_box_reg: 0.1533
loss_mask: 0.2135 loss_rpn_cls: 0.01212 loss_rpn_loc: 0.07417
time: 0.1348 last_time: 0.1421 data_time: 0.0045 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 22:00:15 d2.utils.events]: eta: 0:04:34 iter: 7959
total_loss: 0.4721 loss_cls: 0.03694 loss_box_reg: 0.143 loss_mask:
0.207 loss_rpn_cls: 0.01 loss_rpn_loc: 0.07098 time: 0.1348
last_time: 0.1297 data_time: 0.0048 last_data_time: 0.0046 lr:
0.00025 max_mem: 2657M
[08/02 22:00:17 d2.utils.events]: eta: 0:04:31 iter: 7979
total_loss: 0.4776 loss_cls: 0.03934 loss_box_reg: 0.1514
loss_mask: 0.2033 loss_rpn_cls: 0.01306 loss_rpn_loc: 0.07422
time: 0.1348 last_time: 0.1443 data_time: 0.0047 last_data_time:
0.0054 lr: 0.00025 max_mem: 2657M
[08/02 22:00:20 d2.utils.events]: eta: 0:04:28 iter: 7999
total_loss: 0.4946 loss_cls: 0.03852 loss_box_reg: 0.1504
loss_mask: 0.2039 loss_rpn_cls: 0.00926 loss_rpn_loc: 0.08003
time: 0.1347 last_time: 0.1389 data_time: 0.0046 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 22:00:23 d2.utils.events]: eta: 0:04:26 iter: 8019
total_loss: 0.475 loss_cls: 0.03487 loss_box_reg: 0.1519 loss_mask:
0.2031 loss_rpn_cls: 0.008645 loss_rpn_loc: 0.07978 time: 0.1347
last_time: 0.1372 data_time: 0.0047 last_data_time: 0.0042 lr:
0.00025 max_mem: 2657M
[08/02 22:00:25 d2.utils.events]: eta: 0:04:23 iter: 8039
total_loss: 0.4755 loss_cls: 0.03935 loss_box_reg: 0.1454
loss_mask: 0.2022 loss_rpn_cls: 0.01218 loss_rpn_loc: 0.07557
time: 0.1347 last_time: 0.1481 data_time: 0.0045 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 22:00:28 d2.utils.events]: eta: 0:04:20 iter: 8059
total_loss: 0.4989 loss_cls: 0.03987 loss_box_reg: 0.1579
loss_mask: 0.2006 loss_rpn_cls: 0.01055 loss_rpn_loc: 0.08533
time: 0.1347 last_time: 0.1308 data_time: 0.0046 last_data_time:
0.0046 lr: 0.00025 max_mem: 2657M
[08/02 22:00:31 d2.utils.events]: eta: 0:04:17 iter: 8079
total_loss: 0.495 loss_cls: 0.03937 loss_box_reg: 0.1559 loss_mask:
0.2107 loss_rpn_cls: 0.01164 loss_rpn_loc: 0.07435 time: 0.1347
last_time: 0.1325 data_time: 0.0046 last_data_time: 0.0042 lr:
0.00025 max_mem: 2657M
[08/02 22:00:33 d2.utils.events]: eta: 0:04:15 iter: 8099
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total_loss: 0.4416 loss_cls: 0.03754 loss_box_reg: 0.1318
loss_mask: 0.1949 loss_rpn_cls: 0.009522 loss_rpn_loc: 0.06977
time: 0.1347 last_time: 0.1334 data_time: 0.0047 last_data_time:
0.0046 lr: 0.00025 max_mem: 2657M
[08/02 22:00:36 d2.utils.events]: eta: 0:04:12 iter: 8119
total_loss: 0.4634 loss_cls: 0.03648 loss_box_reg: 0.1373
loss_mask: 0.2115 loss_rpn_cls: 0.00935 loss_rpn_loc: 0.06569
time: 0.1347 last_time: 0.1325 data_time: 0.0044 last_data_time:
0.0045 lr: 0.00025 max_mem: 2657M
[08/02 22:00:39 d2.utils.events]: eta: 0:04:09 iter: 8139
total_loss: 0.4482 loss_cls: 0.03632 loss_box_reg: 0.1294
loss_mask: 0.1981 loss_rpn_cls: 0.01103 loss_rpn_loc: 0.07466
time: 0.1347 last_time: 0.1321 data_time: 0.0045 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 22:00:42 d2.utils.events]: eta: 0:04:07 iter: 8159
total_loss: 0.4493 loss_cls: 0.03485 loss_box_reg: 0.1311
loss_mask: 0.2017 loss_rpn_cls: 0.007328 loss_rpn_loc: 0.06889
time: 0.1347 last_time: 0.1318 data_time: 0.0047 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 22:00:44 d2.utils.events]: eta: 0:04:04 iter: 8179
total_loss: 0.4754 loss_cls: 0.03595 loss_box_reg: 0.1442
loss_mask: 0.2055 loss_rpn_cls: 0.01035 loss_rpn_loc: 0.07933
time: 0.1347 last_time: 0.1340 data_time: 0.0044 last_data_time:
0.0044 lr: 0.00025 max_mem: 2657M
[08/02 22:00:47 d2.utils.events]: eta: 0:04:01 iter: 8199
total_loss: 0.4535 loss_cls: 0.03664 loss_box_reg: 0.1361
loss_mask: 0.2028 loss_rpn_cls: 0.007301 loss_rpn_loc: 0.0682
time: 0.1347 last_time: 0.1314 data_time: 0.0046 last_data_time:
0.0051 lr: 0.00025 max_mem: 2657M
[08/02 22:00:50 d2.utils.events]: eta: 0:03:58 iter: 8219
total_loss: 0.4563 loss_cls: 0.03586 loss_box_reg: 0.1314
loss_mask: 0.2009 loss_rpn_cls: 0.009088 loss_rpn_loc: 0.07399
time: 0.1347 last_time: 0.1323 data_time: 0.0048 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 22:00:52 d2.utils.events]: eta: 0:03:56 iter: 8239
total_loss: 0.4513 loss_cls: 0.03923 loss_box_reg: 0.1296
loss_mask: 0.2003 loss_rpn_cls: 0.01302 loss_rpn_loc: 0.06812
time: 0.1347 last_time: 0.1293 data_time: 0.0044 last_data_time:
0.0046 lr: 0.00025 max_mem: 2657M
[08/02 22:00:55 d2.utils.events]: eta: 0:03:53 iter: 8259
total_loss: 0.4573 loss_cls: 0.03686 loss_box_reg: 0.1392
loss_mask: 0.2099 loss_rpn_cls: 0.01425 loss_rpn_loc: 0.07327
time: 0.1347 last_time: 0.1463 data_time: 0.0046 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 22:00:58 d2.utils.events]: eta: 0:03:50 iter: 8279
total_loss: 0.4805 loss_cls: 0.0349 loss_box_reg: 0.1464 loss_mask:
0.2027 loss_rpn_cls: 0.009106 loss_rpn_loc: 0.07174 time: 0.1347
last_time: 0.1364 data_time: 0.0045 last_data_time: 0.0042 lr:
0.00025 max_mem: 2657M
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[08/02 22:01:00 d2.utils.events]: eta: 0:03:48 iter: 8299
total_loss: 0.4641 loss_cls: 0.03634 loss_box_reg: 0.1423
loss_mask: 0.2028 loss_rpn_cls: 0.01092 loss_rpn_loc: 0.06979
time: 0.1347 last_time: 0.1313 data_time: 0.0046 last_data_time:
0.0042 lr: 0.00025 max_mem: 2657M
[08/02 22:01:03 d2.utils.events]: eta: 0:03:45 iter: 8319
total_loss: 0.4479 loss_cls: 0.03615 loss_box_reg: 0.1299
loss_mask: 0.2016 loss_rpn_cls: 0.009854 loss_rpn_loc: 0.07275
time: 0.1347 last_time: 0.1289 data_time: 0.0045 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 22:01:06 d2.utils.events]: eta: 0:03:42 iter: 8339
total_loss: 0.4344 loss_cls: 0.03493 loss_box_reg: 0.1265
loss_mask: 0.1998 loss_rpn_cls: 0.009928 loss_rpn_loc: 0.0703
time: 0.1347 last_time: 0.1221 data_time: 0.0044 last_data_time:
0.0042 lr: 0.00025 max_mem: 2657M
[08/02 22:01:08 d2.utils.events]: eta: 0:03:40 iter: 8359
total_loss: 0.4627 loss_cls: 0.03693 loss_box_reg: 0.1265
loss_mask: 0.1994 loss_rpn_cls: 0.012 loss_rpn_loc: 0.06501 time:
0.1347 last_time: 0.1294 data_time: 0.0045 last_data_time: 0.0042
lr: 0.00025 max_mem: 2657M
[08/02 22:01:11 d2.utils.events]: eta: 0:03:37 iter: 8379
total_loss: 0.45 loss_cls: 0.03936 loss_box_reg: 0.1287 loss_mask:
0.1938 loss_rpn_cls: 0.01126 loss_rpn_loc: 0.07187 time: 0.1347
last_time: 0.1363 data_time: 0.0046 last_data_time: 0.0052 lr:
0.00025 max_mem: 2657M
[08/02 22:01:14 d2.utils.events]: eta: 0:03:34 iter: 8399
total_loss: 0.4334 loss_cls: 0.03556 loss_box_reg: 0.1376
loss_mask: 0.1982 loss_rpn_cls: 0.007386 loss_rpn_loc: 0.06965
time: 0.1347 last_time: 0.1308 data_time: 0.0046 last_data_time:
0.0044 lr: 0.00025 max_mem: 2657M
[08/02 22:01:16 d2.utils.events]: eta: 0:03:31 iter: 8419
total_loss: 0.4493 loss_cls: 0.0373 loss_box_reg: 0.1363 loss_mask:
0.1996 loss_rpn_cls: 0.01374 loss_rpn_loc: 0.07384 time: 0.1347
last_time: 0.1345 data_time: 0.0048 last_data_time: 0.0044 lr:
0.00025 max_mem: 2657M
[08/02 22:01:19 d2.utils.events]: eta: 0:03:29 iter: 8439
total_loss: 0.4399 loss_cls: 0.03198 loss_box_reg: 0.1286
loss_mask: 0.2029 loss_rpn_cls: 0.007714 loss_rpn_loc: 0.07171
time: 0.1347 last_time: 0.1339 data_time: 0.0045 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 22:01:22 d2.utils.events]: eta: 0:03:26 iter: 8459
total_loss: 0.4712 loss_cls: 0.03541 loss_box_reg: 0.1459
loss_mask: 0.2046 loss_rpn_cls: 0.01304 loss_rpn_loc: 0.07277
time: 0.1347 last_time: 0.1234 data_time: 0.0044 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 22:01:24 d2.utils.events]: eta: 0:03:23 iter: 8479
total_loss: 0.4381 loss_cls: 0.03489 loss_box_reg: 0.1287
loss_mask: 0.194 loss_rpn_cls: 0.008866 loss_rpn_loc: 0.06799
time: 0.1347 last_time: 0.1337 data_time: 0.0045 last_data_time:
0.0050 lr: 0.00025 max_mem: 2657M
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[08/02 22:01:27 d2.utils.events]: eta: 0:03:20 iter: 8499
total_loss: 0.4556 loss_cls: 0.03523 loss_box_reg: 0.1341
loss_mask: 0.1938 loss_rpn_cls: 0.01364 loss_rpn_loc: 0.06731
time: 0.1347 last_time: 0.1338 data_time: 0.0047 last_data_time:
0.0045 lr: 0.00025 max_mem: 2657M
[08/02 22:01:30 d2.utils.events]: eta: 0:03:18 iter: 8519
total_loss: 0.4418 loss_cls: 0.03801 loss_box_reg: 0.1252
loss_mask: 0.2032 loss_rpn_cls: 0.0112 loss_rpn_loc: 0.07068
time: 0.1347 last_time: 0.1360 data_time: 0.0043 last_data_time:
0.0044 lr: 0.00025 max_mem: 2657M
[08/02 22:01:33 d2.utils.events]: eta: 0:03:15 iter: 8539
total_loss: 0.4244 loss_cls: 0.03634 loss_box_reg: 0.122 loss_mask:
0.1931 loss_rpn_cls: 0.01135 loss_rpn_loc: 0.0655 time: 0.1347
last_time: 0.1328 data_time: 0.0045 last_data_time: 0.0043 lr:
0.00025 max_mem: 2657M
[08/02 22:01:35 d2.utils.events]: eta: 0:03:12 iter: 8559
total_loss: 0.446 loss_cls: 0.0343 loss_box_reg: 0.1226 loss_mask:
0.1974 loss_rpn_cls: 0.01446 loss_rpn_loc: 0.06551 time: 0.1347
last_time: 0.1360 data_time: 0.0049 last_data_time: 0.0046 lr:
0.00025 max_mem: 2657M
[08/02 22:01:38 d2.utils.events]: eta: 0:03:10 iter: 8579
total_loss: 0.417 loss_cls: 0.03252 loss_box_reg: 0.1212 loss_mask:
0.1893 loss_rpn_cls: 0.01216 loss_rpn_loc: 0.06014 time: 0.1347
last_time: 0.1465 data_time: 0.0051 last_data_time: 0.0048 lr:
0.00025 max_mem: 2657M
[08/02 22:01:41 d2.utils.events]: eta: 0:03:07 iter: 8599
total_loss: 0.4523 loss_cls: 0.03807 loss_box_reg: 0.1346
loss_mask: 0.2039 loss_rpn_cls: 0.009443 loss_rpn_loc: 0.06615
time: 0.1347 last_time: 0.1350 data_time: 0.0049 last_data_time:
0.0051 lr: 0.00025 max_mem: 2657M
[08/02 22:01:43 d2.utils.events]: eta: 0:03:04 iter: 8619
total_loss: 0.4463 loss_cls: 0.03364 loss_box_reg: 0.133 loss_mask:
0.1988 loss_rpn_cls: 0.009418 loss_rpn_loc: 0.06432 time: 0.1347
last_time: 0.1344 data_time: 0.0046 last_data_time: 0.0043 lr:
0.00025 max_mem: 2657M
[08/02 22:01:46 d2.utils.events]: eta: 0:03:02 iter: 8639
total_loss: 0.4283 loss_cls: 0.03449 loss_box_reg: 0.1206
loss_mask: 0.1994 loss_rpn_cls: 0.01008 loss_rpn_loc: 0.07034
time: 0.1347 last_time: 0.1499 data_time: 0.0048 last_data_time:
0.0052 lr: 0.00025 max_mem: 2657M
[08/02 22:01:49 d2.utils.events]: eta: 0:02:59 iter: 8659
total_loss: 0.4558 loss_cls: 0.03448 loss_box_reg: 0.1334
loss_mask: 0.1997 loss_rpn_cls: 0.01027 loss_rpn_loc: 0.07522
time: 0.1347 last_time: 0.1337 data_time: 0.0049 last_data_time:
0.0049 lr: 0.00025 max_mem: 2657M
[08/02 22:01:52 d2.utils.events]: eta: 0:02:56 iter: 8679
total_loss: 0.4343 loss_cls: 0.03294 loss_box_reg: 0.1249
loss_mask: 0.1977 loss_rpn_cls: 0.0082 loss_rpn_loc: 0.07015
time: 0.1347 last_time: 0.1346 data_time: 0.0047 last_data_time:
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0.0050 lr: 0.00025 max_mem: 2657M
[08/02 22:01:54 d2.utils.events]: eta: 0:02:54 iter: 8699
total_loss: 0.4222 loss_cls: 0.03388 loss_box_reg: 0.114 loss_mask:
0.1926 loss_rpn_cls: 0.0111 loss_rpn_loc: 0.06792 time: 0.1347
last_time: 0.1281 data_time: 0.0046 last_data_time: 0.0044 lr:
0.00025 max_mem: 2657M
[08/02 22:01:57 d2.utils.events]: eta: 0:02:51 iter: 8719
total_loss: 0.4401 loss_cls: 0.03274 loss_box_reg: 0.1351
loss_mask: 0.1909 loss_rpn_cls: 0.008189 loss_rpn_loc: 0.07433
time: 0.1347 last_time: 0.1456 data_time: 0.0044 last_data_time:
0.0046 lr: 0.00025 max_mem: 2657M
[08/02 22:02:00 d2.utils.events]: eta: 0:02:48 iter: 8739
total_loss: 0.4367 loss_cls: 0.03274 loss_box_reg: 0.1286
loss_mask: 0.2004 loss_rpn_cls: 0.006414 loss_rpn_loc: 0.06458
time: 0.1347 last_time: 0.1383 data_time: 0.0046 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 22:02:02 d2.utils.events]: eta: 0:02:46 iter: 8759
total_loss: 0.4136 loss_cls: 0.03294 loss_box_reg: 0.1202
loss_mask: 0.189 loss_rpn_cls: 0.006764 loss_rpn_loc: 0.07052
time: 0.1347 last_time: 0.1267 data_time: 0.0044 last_data_time:
0.0042 lr: 0.00025 max_mem: 2657M
[08/02 22:02:05 d2.utils.events]: eta: 0:02:43 iter: 8779
total_loss: 0.4318 loss_cls: 0.03315 loss_box_reg: 0.1255
loss_mask: 0.1983 loss_rpn_cls: 0.009096 loss_rpn_loc: 0.07372
time: 0.1347 last_time: 0.1315 data_time: 0.0048 last_data_time:
0.0045 lr: 0.00025 max_mem: 2657M
[08/02 22:02:08 d2.utils.events]: eta: 0:02:40 iter: 8799
total_loss: 0.4351 loss_cls: 0.03517 loss_box_reg: 0.1277
loss_mask: 0.2017 loss_rpn_cls: 0.009364 loss_rpn_loc: 0.07234
time: 0.1347 last_time: 0.1298 data_time: 0.0050 last_data_time:
0.0046 lr: 0.00025 max_mem: 2657M
[08/02 22:02:10 d2.utils.events]: eta: 0:02:38 iter: 8819
total_loss: 0.4311 loss_cls: 0.034 loss_box_reg: 0.1255 loss_mask:
0.2002 loss_rpn_cls: 0.008032 loss_rpn_loc: 0.06859 time: 0.1347
last_time: 0.1316 data_time: 0.0046 last_data_time: 0.0053 lr:
0.00025 max_mem: 2657M
[08/02 22:02:13 d2.utils.events]: eta: 0:02:35 iter: 8839
total_loss: 0.4048 loss_cls: 0.0325 loss_box_reg: 0.1113 loss_mask:
0.1857 loss_rpn_cls: 0.01022 loss_rpn_loc: 0.06423 time: 0.1347
last_time: 0.1251 data_time: 0.0045 last_data_time: 0.0041 lr:
0.00025 max_mem: 2657M
[08/02 22:02:16 d2.utils.events]: eta: 0:02:32 iter: 8859
total_loss: 0.4183 loss_cls: 0.03261 loss_box_reg: 0.1146
loss_mask: 0.1979 loss_rpn_cls: 0.01993 loss_rpn_loc: 0.06158
time: 0.1347 last_time: 0.1338 data_time: 0.0045 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 22:02:18 d2.utils.events]: eta: 0:02:29 iter: 8879
total_loss: 0.4186 loss_cls: 0.03065 loss_box_reg: 0.1241
loss_mask: 0.1921 loss_rpn_cls: 0.008861 loss_rpn_loc: 0.06763
```

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time: 0.1347 last_time: 0.1325 data_time: 0.0046 last_data_time:  
0.0045 lr: 0.00025 max_mem: 2657M  
[08/02 22:02:21 d2.utils.events]: eta: 0:02:27 iter: 8899  
total_loss: 0.451 loss_cls: 0.03647 loss_box_reg: 0.1368 loss_mask:  
0.1967 loss_rpn_cls: 0.01605 loss_rpn_loc: 0.06696 time: 0.1347  
last_time: 0.1352 data_time: 0.0047 last_data_time: 0.0047 lr:  
0.00025 max_mem: 2657M  
[08/02 22:02:24 d2.utils.events]: eta: 0:02:24 iter: 8919  
total_loss: 0.4417 loss_cls: 0.03562 loss_box_reg: 0.1339  
loss_mask: 0.2005 loss_rpn_cls: 0.007615 loss_rpn_loc: 0.07056  
time: 0.1347 last_time: 0.1389 data_time: 0.0046 last_data_time:  
0.0044 lr: 0.00025 max_mem: 2657M  
[08/02 22:02:26 d2.utils.events]: eta: 0:02:21 iter: 8939  
total_loss: 0.4387 loss_cls: 0.0334 loss_box_reg: 0.1263 loss_mask:  
0.1926 loss_rpn_cls: 0.00904 loss_rpn_loc: 0.0726 time: 0.1347  
last_time: 0.1251 data_time: 0.0045 last_data_time: 0.0048 lr:  
0.00025 max_mem: 2657M  
[08/02 22:02:29 d2.utils.events]: eta: 0:02:19 iter: 8959  
total_loss: 0.4618 loss_cls: 0.03708 loss_box_reg: 0.1388  
loss_mask: 0.2017 loss_rpn_cls: 0.006924 loss_rpn_loc: 0.07738  
time: 0.1347 last_time: 0.1339 data_time: 0.0046 last_data_time:  
0.0042 lr: 0.00025 max_mem: 2657M  
[08/02 22:02:32 d2.utils.events]: eta: 0:02:16 iter: 8979  
total_loss: 0.4541 loss_cls: 0.03377 loss_box_reg: 0.1218  
loss_mask: 0.2016 loss_rpn_cls: 0.0118 loss_rpn_loc: 0.07766  
time: 0.1347 last_time: 0.1380 data_time: 0.0044 last_data_time:  
0.0046 lr: 0.00025 max_mem: 2657M  
[08/02 22:02:34 d2.utils.events]: eta: 0:02:13 iter: 8999  
total_loss: 0.4619 loss_cls: 0.04171 loss_box_reg: 0.1416  
loss_mask: 0.2023 loss_rpn_cls: 0.01134 loss_rpn_loc: 0.07302  
time: 0.1347 last_time: 0.1260 data_time: 0.0045 last_data_time:  
0.0047 lr: 0.00025 max_mem: 2657M  
[08/02 22:02:37 d2.utils.events]: eta: 0:02:11 iter: 9019  
total_loss: 0.4295 loss_cls: 0.03548 loss_box_reg: 0.1278  
loss_mask: 0.1872 loss_rpn_cls: 0.007215 loss_rpn_loc: 0.06624  
time: 0.1346 last_time: 0.1364 data_time: 0.0045 last_data_time:  
0.0042 lr: 0.00025 max_mem: 2657M  
[08/02 22:02:40 d2.utils.events]: eta: 0:02:08 iter: 9039  
total_loss: 0.394 loss_cls: 0.02799 loss_box_reg: 0.1172 loss_mask:  
0.1883 loss_rpn_cls: 0.01107 loss_rpn_loc: 0.06278 time: 0.1346  
last_time: 0.1284 data_time: 0.0047 last_data_time: 0.0048 lr:  
0.00025 max_mem: 2657M  
[08/02 22:02:42 d2.utils.events]: eta: 0:02:05 iter: 9059  
total_loss: 0.4481 loss_cls: 0.03702 loss_box_reg: 0.1253  
loss_mask: 0.2014 loss_rpn_cls: 0.01079 loss_rpn_loc: 0.07288  
time: 0.1346 last_time: 0.1302 data_time: 0.0048 last_data_time:  
0.0044 lr: 0.00025 max_mem: 2657M  
[08/02 22:02:45 d2.utils.events]: eta: 0:02:03 iter: 9079  
total_loss: 0.4182 loss_cls: 0.03118 loss_box_reg: 0.1152
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loss_mask: 0.1934 loss_rpn_cls: 0.009565 loss_rpn_loc: 0.06816
time: 0.1346 last_time: 0.1375 data_time: 0.0046 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 22:02:48 d2.utils.events]: eta: 0:02:00 iter: 9099
total_loss: 0.423 loss_cls: 0.03441 loss_box_reg: 0.1177 loss_mask:
0.1874 loss_rpn_cls: 0.009292 loss_rpn_loc: 0.07015 time: 0.1346
last_time: 0.1241 data_time: 0.0044 last_data_time: 0.0043 lr:
0.00025 max_mem: 2657M
[08/02 22:02:50 d2.utils.events]: eta: 0:01:57 iter: 9119
total_loss: 0.4402 loss_cls: 0.0324 loss_box_reg: 0.1328 loss_mask:
0.1973 loss_rpn_cls: 0.006153 loss_rpn_loc: 0.06725 time: 0.1346
last_time: 0.1299 data_time: 0.0044 last_data_time: 0.0044 lr:
0.00025 max_mem: 2657M
[08/02 22:02:53 d2.utils.events]: eta: 0:01:54 iter: 9139
total_loss: 0.4168 loss_cls: 0.03119 loss_box_reg: 0.1182
loss_mask: 0.2021 loss_rpn_cls: 0.01107 loss_rpn_loc: 0.07279
time: 0.1346 last_time: 0.1232 data_time: 0.0050 last_data_time:
0.0055 lr: 0.00025 max_mem: 2657M
[08/02 22:02:56 d2.utils.events]: eta: 0:01:52 iter: 9159
total_loss: 0.4676 loss_cls: 0.03849 loss_box_reg: 0.144 loss_mask:
0.2015 loss_rpn_cls: 0.009834 loss_rpn_loc: 0.0724 time: 0.1346
last_time: 0.3538 data_time: 0.0050 last_data_time: 0.0050 lr:
0.00025 max_mem: 2657M
[08/02 22:02:59 d2.utils.events]: eta: 0:01:49 iter: 9179
total_loss: 0.4431 loss_cls: 0.03204 loss_box_reg: 0.1238
loss_mask: 0.1897 loss_rpn_cls: 0.01223 loss_rpn_loc: 0.06677
time: 0.1346 last_time: 0.1385 data_time: 0.0050 last_data_time:
0.0050 lr: 0.00025 max_mem: 2657M
[08/02 22:03:02 d2.utils.events]: eta: 0:01:47 iter: 9199
total_loss: 0.4305 loss_cls: 0.03132 loss_box_reg: 0.1253
loss_mask: 0.191 loss_rpn_cls: 0.006275 loss_rpn_loc: 0.06496
time: 0.1347 last_time: 0.1322 data_time: 0.0051 last_data_time:
0.0049 lr: 0.00025 max_mem: 2657M
[08/02 22:03:04 d2.utils.events]: eta: 0:01:44 iter: 9219
total_loss: 0.4229 loss_cls: 0.03509 loss_box_reg: 0.1309
loss_mask: 0.1943 loss_rpn_cls: 0.009968 loss_rpn_loc: 0.07254
time: 0.1347 last_time: 0.1315 data_time: 0.0052 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 22:03:07 d2.utils.events]: eta: 0:01:41 iter: 9239
total_loss: 0.4801 loss_cls: 0.03612 loss_box_reg: 0.1484
loss_mask: 0.1998 loss_rpn_cls: 0.008901 loss_rpn_loc: 0.0857
time: 0.1347 last_time: 0.1358 data_time: 0.0050 last_data_time:
0.0051 lr: 0.00025 max_mem: 2657M
[08/02 22:03:10 d2.utils.events]: eta: 0:01:39 iter: 9259
total_loss: 0.4588 loss_cls: 0.03062 loss_box_reg: 0.1395
loss_mask: 0.1942 loss_rpn_cls: 0.0128 loss_rpn_loc: 0.0747 time:
0.1347 last_time: 0.1373 data_time: 0.0051 last_data_time: 0.0050
lr: 0.00025 max_mem: 2657M
[08/02 22:03:12 d2.utils.events]: eta: 0:01:36 iter: 9279
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total_loss: 0.4388 loss_cls: 0.03251 loss_box_reg: 0.132 loss_mask: 0.1999 loss_rpn_cls: 0.007545 loss_rpn_loc: 0.07075 time: 0.1347 last_time: 0.1287 data_time: 0.0050 last_data_time: 0.0047 lr: 0.00025 max_mem: 2657M [08/02 22:03:15 d2.utils.events]: eta: 0:01:33 iter: 9299 total_loss: 0.4267 loss_cls: 0.03562 loss_box_reg: 0.1257 loss_mask: 0.1904 loss_rpn_cls: 0.01475 loss_rpn_loc: 0.06851 time: 0.1347 last_time: 0.1483 data_time: 0.0044 last_data_time: 0.0042 lr: 0.00025 max_mem: 2657M [08/02 22:03:18 d2.utils.events]: eta: 0:01:31 iter: 9319 total_loss: 0.4231 loss_cls: 0.0338 loss_box_reg: 0.1192 loss_mask: 0.1907 loss_rpn_cls: 0.01143 loss_rpn_loc: 0.06839 time: 0.1347 last_time: 0.1312 data_time: 0.0048 last_data_time: 0.0046 lr: 0.00025 max_mem: 2657M [08/02 22:03:20 d2.utils.events]: eta: 0:01:28 iter: 9339 total_loss: 0.4246 loss_cls: 0.03456 loss_box_reg: 0.1223 loss_mask: 0.1901 loss_rpn_cls: 0.01051 loss_rpn_loc: 0.06637 time: 0.1347 last_time: 0.1337 data_time: 0.0049 last_data_time: 0.0051 lr: 0.00025 max_mem: 2657M [08/02 22:03:23 d2.utils.events]: eta: 0:01:25 iter: 9359 total_loss: 0.4389 loss_cls: 0.03399 loss_box_reg: 0.1253 loss_mask: 0.1892 loss_rpn_cls: 0.00719 loss_rpn_loc: 0.06604 time: 0.1347 last_time: 0.1289 data_time: 0.0047 last_data_time: 0.0045 lr: 0.00025 max_mem: 2657M [08/02 22:03:26 d2.utils.events]: eta: 0:01:23 iter: 9379 total_loss: 0.3846 loss_cls: 0.02981 loss_box_reg: 0.1107 loss_mask: 0.1882 loss_rpn_cls: 0.009335 loss_rpn_loc: 0.06541 time: 0.1347 last_time: 0.1310 data_time: 0.0046 last_data_time: 0.0045 lr: 0.00025 max_mem: 2657M [08/02 22:03:28 d2.utils.events]: eta: 0:01:20 iter: 9399 total_loss: 0.4284 loss_cls: 0.03451 loss_box_reg: 0.1175 loss_mask: 0.1895 loss_rpn_cls: 0.01137 loss_rpn_loc: 0.06621 time: 0.1346 last_time: 0.1319 data_time: 0.0044 last_data_time: 0.0046 lr: 0.00025 max_mem: 2657M [08/02 22:03:31 d2.utils.events]: eta: 0:01:17 iter: 9419 total_loss: 0.4174 loss_cls: 0.0327 loss_box_reg: 0.1164 loss_mask: 0.1938 loss_rpn_cls: 0.01115 loss_rpn_loc: 0.06296 time: 0.1346 last_time: 0.1218 data_time: 0.0045 last_data_time: 0.0046 lr: 0.00025 max_mem: 2657M [08/02 22:03:34 d2.utils.events]: eta: 0:01:15 iter: 9439 total_loss: 0.4156 loss_cls: 0.03413 loss_box_reg: 0.1187 loss_mask: 0.1914 loss_rpn_cls: 0.008851 loss_rpn_loc: 0.06912 time: 0.1346 last_time: 0.1316 data_time: 0.0048 last_data_time: 0.0048 lr: 0.00025 max_mem: 2657M [08/02 22:03:36 d2.utils.events]: eta: 0:01:12 iter: 9459 total_loss: 0.4027 loss_cls: 0.02919 loss_box_reg: 0.1208 loss_mask: 0.1843 loss_rpn_cls: 0.007144 loss_rpn_loc: 0.06986 time: 0.1346 last_time: 0.1433 data_time: 0.0046 last_data_time: 0.0045 lr: 0.00025 max_mem: 2657M
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[08/02 22:03:39 d2.utils.events]: eta: 0:01:09 iter: 9479
total_loss: 0.4354 loss_cls: 0.03137 loss_box_reg: 0.1218
loss_mask: 0.1942 loss_rpn_cls: 0.01233 loss_rpn_loc: 0.07354
time: 0.1346 last_time: 0.1334 data_time: 0.0047 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 22:03:42 d2.utils.events]: eta: 0:01:07 iter: 9499
total_loss: 0.4199 loss_cls: 0.03268 loss_box_reg: 0.1227
loss_mask: 0.1903 loss_rpn_cls: 0.009715 loss_rpn_loc: 0.06423
time: 0.1346 last_time: 0.1370 data_time: 0.0049 last_data_time:
0.0057 lr: 0.00025 max_mem: 2657M
[08/02 22:03:45 d2.utils.events]: eta: 0:01:04 iter: 9519
total_loss: 0.4319 loss_cls: 0.03028 loss_box_reg: 0.1295
loss_mask: 0.1957 loss_rpn_cls: 0.01144 loss_rpn_loc: 0.06875
time: 0.1346 last_time: 0.1387 data_time: 0.0049 last_data_time:
0.0052 lr: 0.00025 max_mem: 2657M
[08/02 22:03:47 d2.utils.events]: eta: 0:01:01 iter: 9539
total_loss: 0.4199 loss_cls: 0.0332 loss_box_reg: 0.1173 loss_mask:
0.1924 loss_rpn_cls: 0.0117 loss_rpn_loc: 0.06716 time: 0.1346
last_time: 0.1411 data_time: 0.0047 last_data_time: 0.0043 lr:
0.00025 max_mem: 2657M
[08/02 22:03:50 d2.utils.events]: eta: 0:00:58 iter: 9559
total_loss: 0.3827 loss_cls: 0.03197 loss_box_reg: 0.1026
loss_mask: 0.1857 loss_rpn_cls: 0.007956 loss_rpn_loc: 0.05945
time: 0.1346 last_time: 0.1312 data_time: 0.0051 last_data_time:
0.0053 lr: 0.00025 max_mem: 2657M
[08/02 22:03:53 d2.utils.events]: eta: 0:00:56 iter: 9579
total_loss: 0.3888 loss_cls: 0.02797 loss_box_reg: 0.1025
loss_mask: 0.1855 loss_rpn_cls: 0.007173 loss_rpn_loc: 0.05912
time: 0.1346 last_time: 0.1306 data_time: 0.0053 last_data_time:
0.0046 lr: 0.00025 max_mem: 2657M
[08/02 22:03:55 d2.utils.events]: eta: 0:00:53 iter: 9599
total_loss: 0.3892 loss_cls: 0.03042 loss_box_reg: 0.1078
loss_mask: 0.1853 loss_rpn_cls: 0.01184 loss_rpn_loc: 0.06273
time: 0.1346 last_time: 0.1267 data_time: 0.0051 last_data_time:
0.0046 lr: 0.00025 max_mem: 2657M
[08/02 22:03:58 d2.utils.events]: eta: 0:00:50 iter: 9619
total_loss: 0.4386 loss_cls: 0.03199 loss_box_reg: 0.1249
loss_mask: 0.1934 loss_rpn_cls: 0.009343 loss_rpn_loc: 0.06417
time: 0.1346 last_time: 0.1395 data_time: 0.0047 last_data_time:
0.0046 lr: 0.00025 max_mem: 2657M
[08/02 22:04:01 d2.utils.events]: eta: 0:00:48 iter: 9639
total_loss: 0.4159 loss_cls: 0.03024 loss_box_reg: 0.1214
loss_mask: 0.1886 loss_rpn_cls: 0.007074 loss_rpn_loc: 0.06839
time: 0.1346 last_time: 0.1396 data_time: 0.0045 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 22:04:03 d2.utils.events]: eta: 0:00:45 iter: 9659
total_loss: 0.3972 loss_cls: 0.03188 loss_box_reg: 0.113 loss_mask:
0.1767 loss_rpn_cls: 0.008594 loss_rpn_loc: 0.06301 time: 0.1346
last_time: 0.1265 data_time: 0.0045 last_data_time: 0.0045 lr:
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0.00025 max_mem: 2657M
[08/02 22:04:06 d2.utils.events]: eta: 0:00:42 iter: 9679
total_loss: 0.4224 loss_cls: 0.03439 loss_box_reg: 0.1206
loss_mask: 0.1877 loss_rpn_cls: 0.01064 loss_rpn_loc: 0.07023
time: 0.1346 last_time: 0.1181 data_time: 0.0045 last_data_time:
0.0043 lr: 0.00025 max_mem: 2657M
[08/02 22:04:09 d2.utils.events]: eta: 0:00:40 iter: 9699
total_loss: 0.4017 loss_cls: 0.03194 loss_box_reg: 0.1086
loss_mask: 0.1844 loss_rpn_cls: 0.01167 loss_rpn_loc: 0.05985
time: 0.1346 last_time: 0.1330 data_time: 0.0046 last_data_time:
0.0044 lr: 0.00025 max_mem: 2657M
[08/02 22:04:12 d2.utils.events]: eta: 0:00:37 iter: 9719
total_loss: 0.4062 loss_cls: 0.03431 loss_box_reg: 0.1153
loss_mask: 0.1834 loss_rpn_cls: 0.01061 loss_rpn_loc: 0.06004
time: 0.1346 last_time: 0.1227 data_time: 0.0046 last_data_time:
0.0044 lr: 0.00025 max_mem: 2657M
[08/02 22:04:14 d2.utils.events]: eta: 0:00:34 iter: 9739
total_loss: 0.4051 loss_cls: 0.03025 loss_box_reg: 0.1127
loss_mask: 0.1902 loss_rpn_cls: 0.006772 loss_rpn_loc: 0.06533
time: 0.1346 last_time: 0.1371 data_time: 0.0048 last_data_time:
0.0050 lr: 0.00025 max_mem: 2657M
[08/02 22:04:17 d2.utils.events]: eta: 0:00:32 iter: 9759
total_loss: 0.4054 loss_cls: 0.02953 loss_box_reg: 0.1168
loss_mask: 0.1875 loss_rpn_cls: 0.01002 loss_rpn_loc: 0.06879
time: 0.1346 last_time: 0.1282 data_time: 0.0047 last_data_time:
0.0048 lr: 0.00025 max_mem: 2657M
[08/02 22:04:20 d2.utils.events]: eta: 0:00:29 iter: 9779
total_loss: 0.3726 loss_cls: 0.02761 loss_box_reg: 0.09845
loss_mask: 0.1879 loss_rpn_cls: 0.008303 loss_rpn_loc: 0.05215
time: 0.1346 last_time: 0.1365 data_time: 0.0046 last_data_time:
0.0045 lr: 0.00025 max_mem: 2657M
[08/02 22:04:22 d2.utils.events]: eta: 0:00:26 iter: 9799
total_loss: 0.4159 loss_cls: 0.03514 loss_box_reg: 0.121 loss_mask:
0.1865 loss_rpn_cls: 0.01114 loss_rpn_loc: 0.06697 time: 0.1346
last_time: 0.1372 data_time: 0.0046 last_data_time: 0.0046 lr:
0.00025 max_mem: 2657M
[08/02 22:04:25 d2.utils.events]: eta: 0:00:24 iter: 9819
total_loss: 0.4024 loss_cls: 0.03067 loss_box_reg: 0.115 loss_mask:
0.188 loss_rpn_cls: 0.01074 loss_rpn_loc: 0.06991 time: 0.1346
last_time: 0.1326 data_time: 0.0047 last_data_time: 0.0047 lr:
0.00025 max_mem: 2657M
[08/02 22:04:28 d2.utils.events]: eta: 0:00:21 iter: 9839
total_loss: 0.4166 loss_cls: 0.03228 loss_box_reg: 0.1104
loss_mask: 0.1828 loss_rpn_cls: 0.01043 loss_rpn_loc: 0.06298
time: 0.1346 last_time: 0.1294 data_time: 0.0046 last_data_time:
0.0046 lr: 0.00025 max_mem: 2657M
[08/02 22:04:30 d2.utils.events]: eta: 0:00:18 iter: 9859
total_loss: 0.3974 loss_cls: 0.02865 loss_box_reg: 0.1134
loss_mask: 0.1875 loss_rpn_cls: 0.009599 loss_rpn_loc: 0.06231
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time: 0.1346 last_time: 0.1294 data_time: 0.0054 last_data_time:
0.0051 lr: 0.00025 max_mem: 2657M
[08/02 22:04:33 d2.utils.events]: eta: 0:00:16 iter: 9879
total_loss: 0.4021 loss_cls: 0.03397 loss_box_reg: 0.1107
loss_mask: 0.1887 loss_rpn_cls: 0.009313 loss_rpn_loc: 0.06775
time: 0.1346 last_time: 0.1381 data_time: 0.0053 last_data_time:
0.0053 lr: 0.00025 max_mem: 2657M
[08/02 22:04:36 d2.utils.events]: eta: 0:00:13 iter: 9899
total_loss: 0.3785 loss_cls: 0.02776 loss_box_reg: 0.1024
loss_mask: 0.1804 loss_rpn_cls: 0.009194 loss_rpn_loc: 0.05778
time: 0.1346 last_time: 0.1340 data_time: 0.0054 last_data_time:
0.0047 lr: 0.00025 max_mem: 2657M
[08/02 22:04:39 d2.utils.events]: eta: 0:00:10 iter: 9919
total_loss: 0.4224 loss_cls: 0.03024 loss_box_reg: 0.1198
loss_mask: 0.1849 loss_rpn_cls: 0.006446 loss_rpn_loc: 0.06886
time: 0.1346 last_time: 0.1352 data_time: 0.0055 last_data_time:
0.0055 lr: 0.00025 max_mem: 2657M
[08/02 22:04:41 d2.utils.events]: eta: 0:00:08 iter: 9939
total_loss: 0.4058 loss_cls: 0.02875 loss_box_reg: 0.1116
loss_mask: 0.1844 loss_rpn_cls: 0.009526 loss_rpn_loc: 0.06642
time: 0.1346 last_time: 0.1351 data_time: 0.0053 last_data_time:
0.0050 lr: 0.00025 max_mem: 2657M
[08/02 22:04:44 d2.utils.events]: eta: 0:00:05 iter: 9959
total_loss: 0.3974 loss_cls: 0.02753 loss_box_reg: 0.112 loss_mask:
0.1815 loss_rpn_cls: 0.01068 loss_rpn_loc: 0.06177 time: 0.1346
last_time: 0.1273 data_time: 0.0048 last_data_time: 0.0042 lr:
0.00025 max_mem: 2657M
[08/02 22:04:47 d2.utils.events]: eta: 0:00:02 iter: 9979
total_loss: 0.3904 loss_cls: 0.02985 loss_box_reg: 0.1062
loss_mask: 0.1863 loss_rpn_cls: 0.01278 loss_rpn_loc: 0.06206
time: 0.1346 last_time: 0.1366 data_time: 0.0048 last_data_time:
0.0049 lr: 0.00025 max_mem: 2657M
[08/02 22:04:50 d2.utils.events]: eta: 0:00:00 iter: 9999
total_loss: 0.4025 loss_cls: 0.0312 loss_box_reg: 0.1075 loss_mask:
0.1891 loss_rpn_cls: 0.007692 loss_rpn_loc: 0.06714 time: 0.1346
last_time: 0.1396 data_time: 0.0054 last_data_time: 0.0052 lr:
0.00025 max_mem: 2657M
[08/02 22:04:50 d2.engine.hooks]: Overall training speed: 9998
iterations in 0:22:26 (0.1346 s / it)
[08/02 22:04:50 d2.engine.hooks]: Total training time: 0:22:37
(0:00:11 on hooks)

# Look at training curves in tensorboard:
%load_ext tensorboard
%tensorboard --logdir output

<IPython.core.display.Javascript object>

cfg.MODEL.WEIGHTS = os.path.join(cfg.OUTPUT_DIR, "model_final.pth")
cfg.MODEL.ROI_HEADS.SCORE_THRESH_TEST = 0.5

```

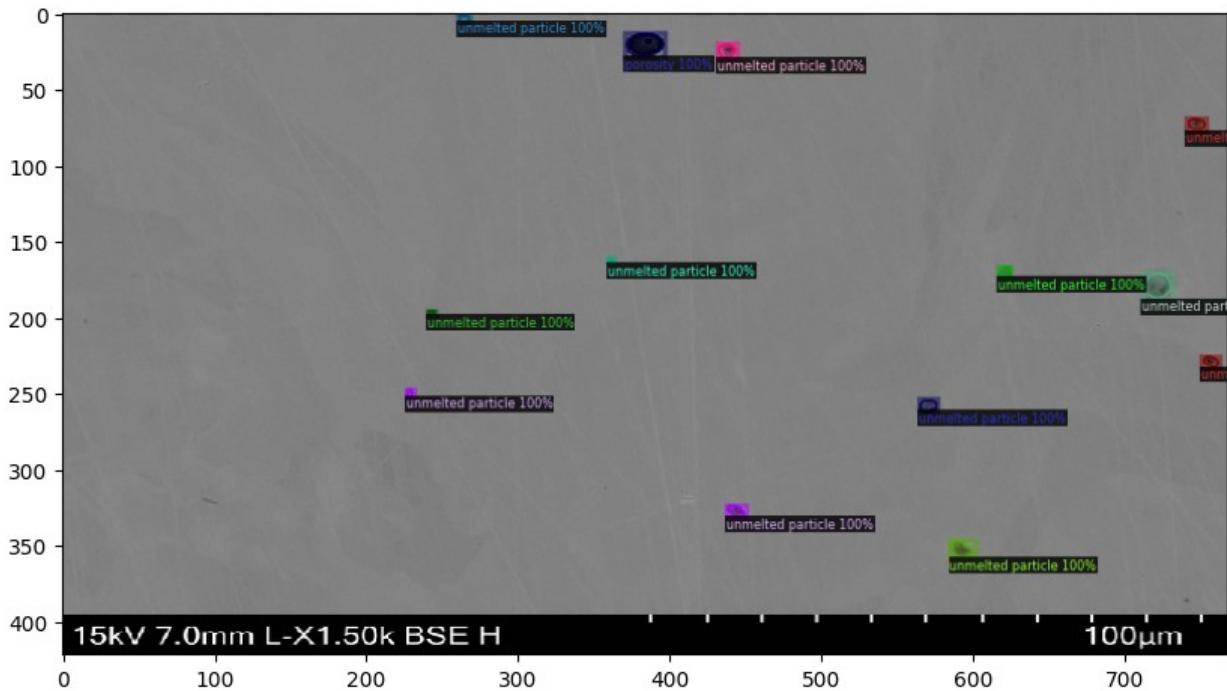
```

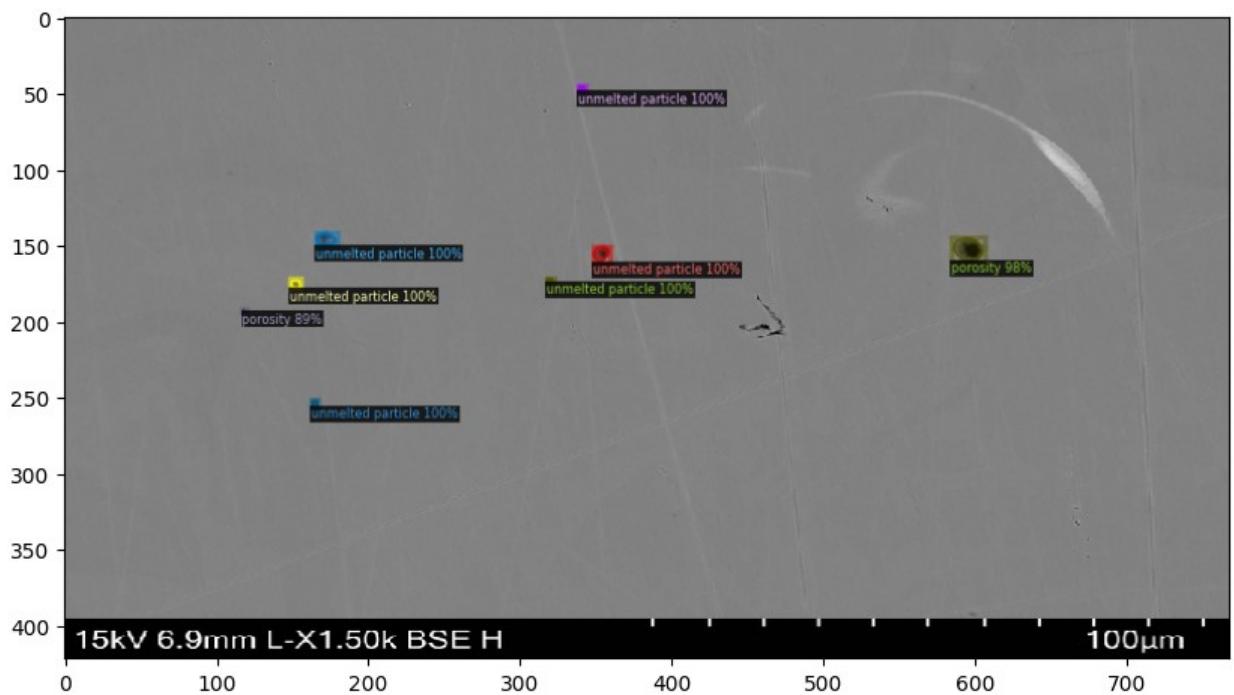
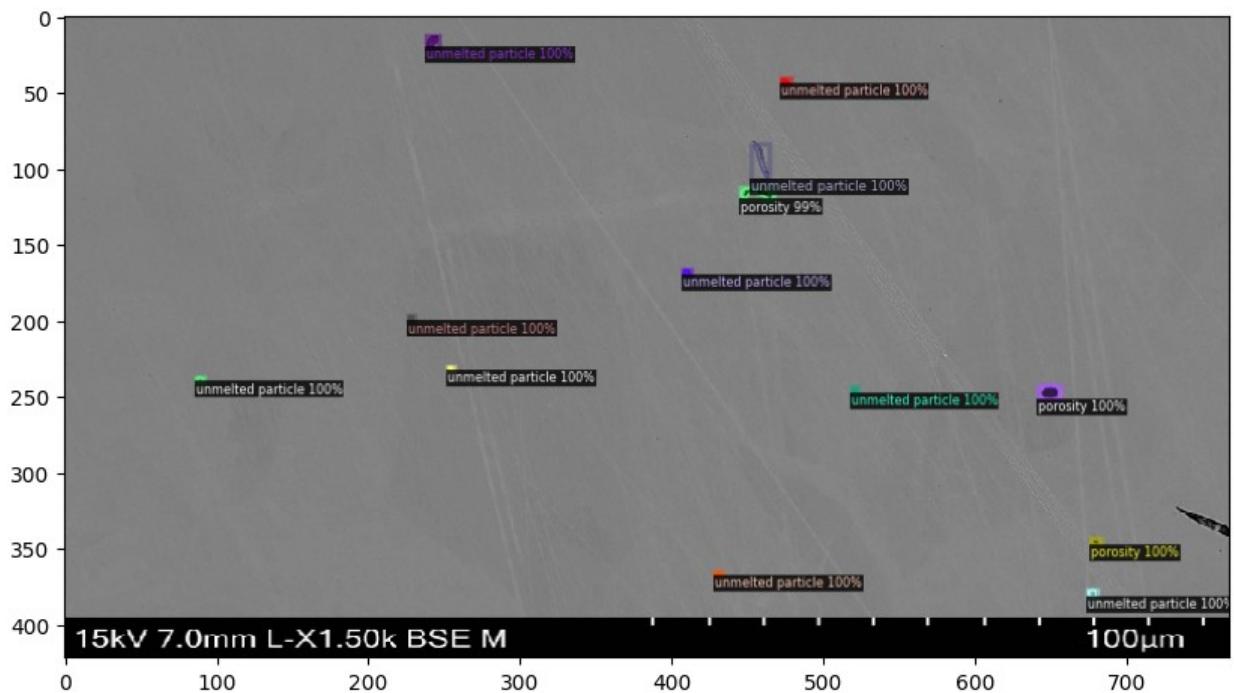
cfg.DATASETS.TEST = ("p_test", )
predictor = DefaultPredictor(cfg)

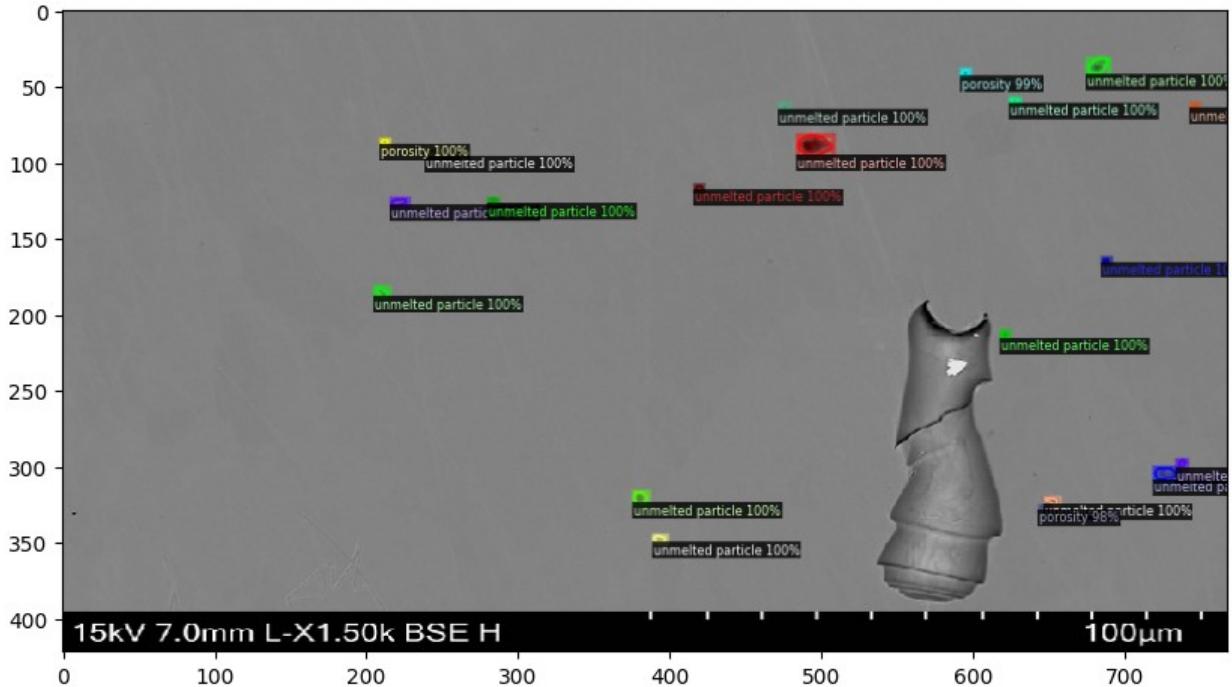
[08/02 22:08:13 d2.checkpoint.detection_checkpoint]:
[DetectionCheckpointer] Loading from ./output/model_final.pth ...

from detectron2.utils.visualizer import ColorMode
dataset_dicts = get_r_dicts('/content/drive/MyDrive/Mahabub/train')
for d in random.sample(dataset_dicts, 4):
    im = cv2.imread(d["file_name"])
    outputs = predictor(im)
    v = Visualizer(im[:, :, ::-1],
                   metadata=r_metadata,
                   scale=0.8,
                   instance_mode=ColorMode.IMAGE_BW # remove the
    colors of unsegmented pixels
    )
    v = v.draw_instance_predictions(outputs["instances"].to("cpu"))
    plt.figure(figsize = (10, 10))
    plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1],
    cv2.COLOR_BGR2RGB))
    plt.show()

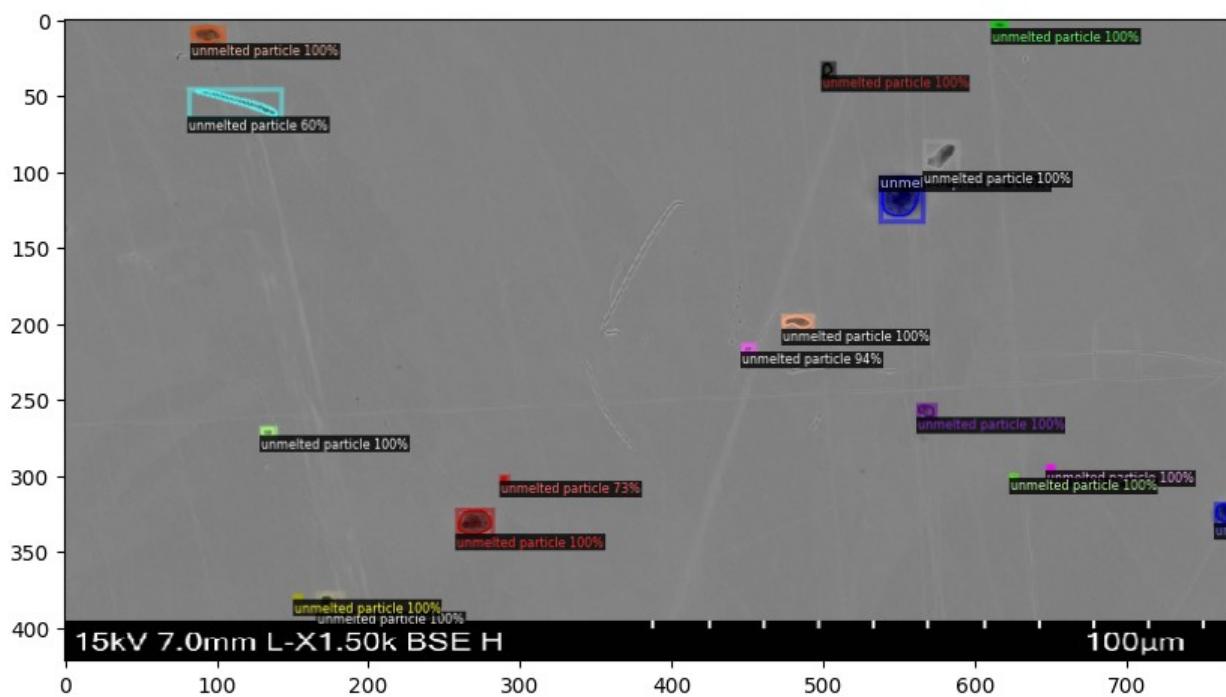
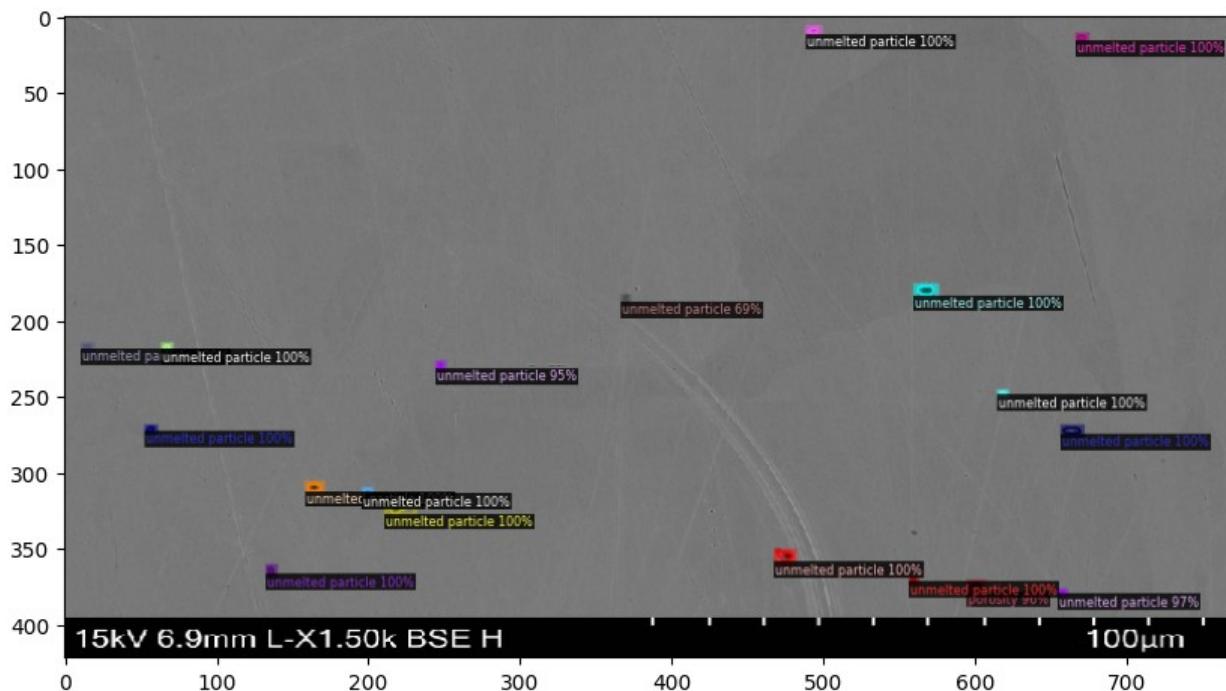
```

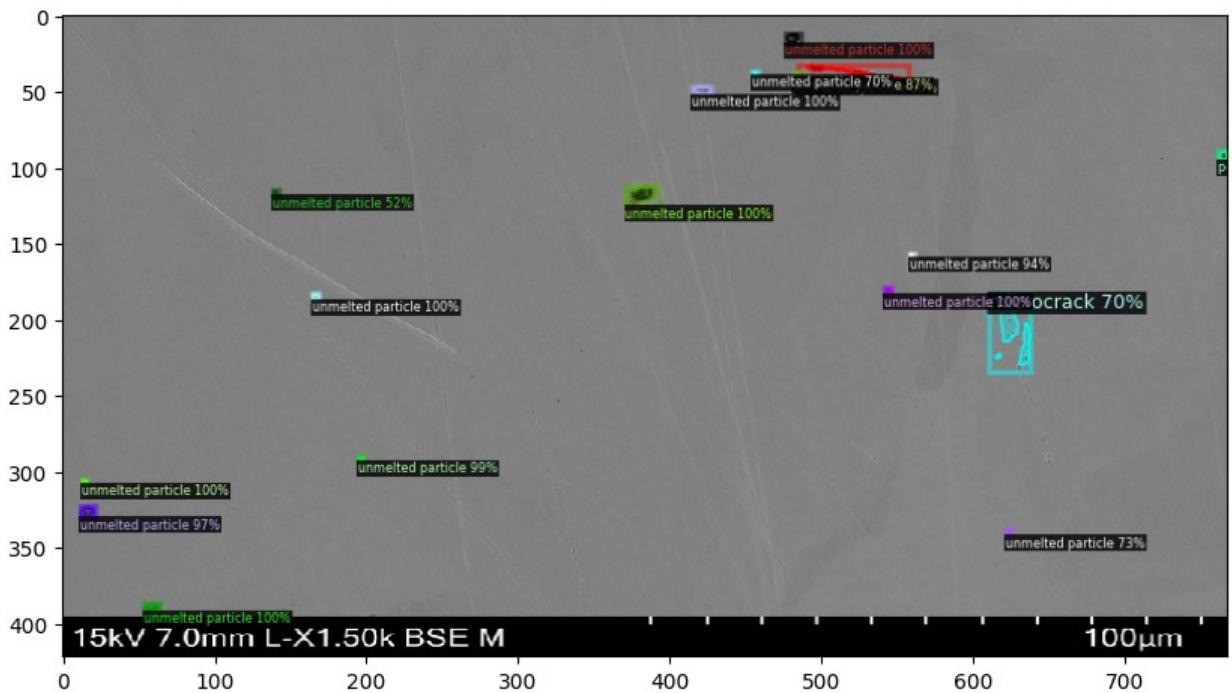
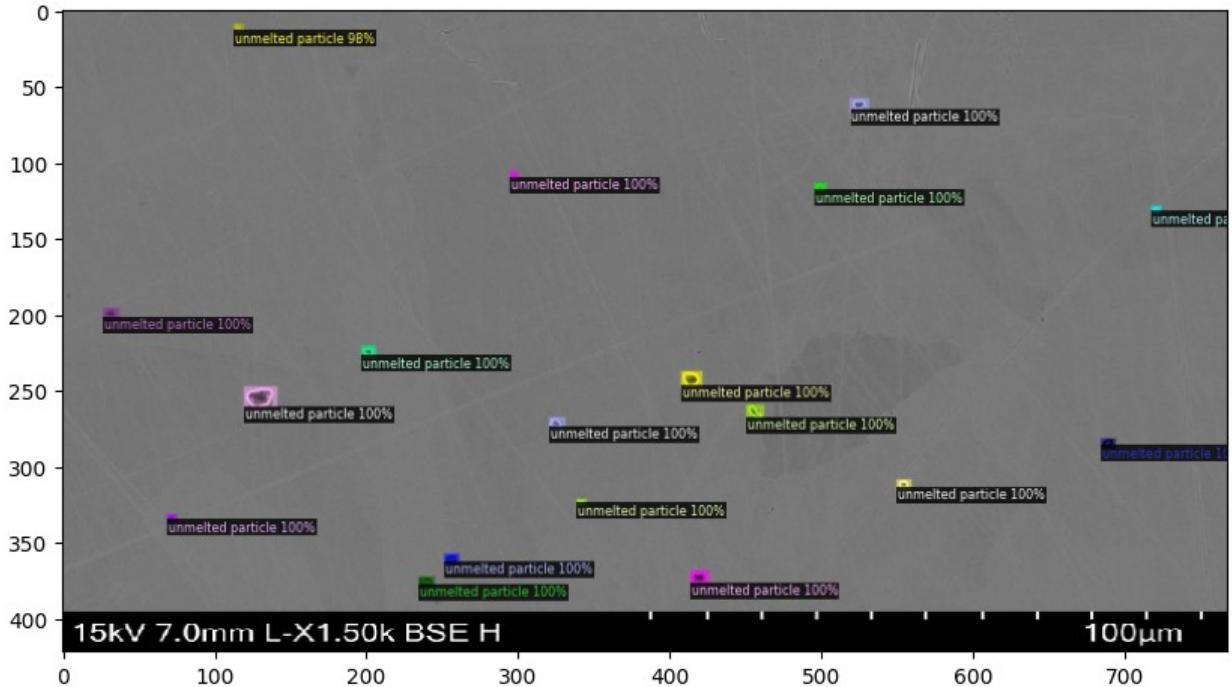






```
from detectron2.utils.visualizer import ColorMode
dataset_dicts = get_r_dicts('/content/drive/MyDrive/Mahabub/test')
for d in random.sample(dataset_dicts, 4):
    im = cv2.imread(d["file_name"])
    outputs = predictor(im)
    v = Visualizer(im[:, :, ::-1],
                   metadata=r_metadata,
                   scale=0.8,
                   instance_mode=ColorMode.IMAGE_BW # remove the
    colors of unsegmented pixels
    )
    v = v.draw_instance_predictions(outputs["instances"].to("cpu"))
    plt.figure(figsize = (10, 10))
    plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1],
    cv2.COLOR_BGR2RGB))
    plt.show()
```





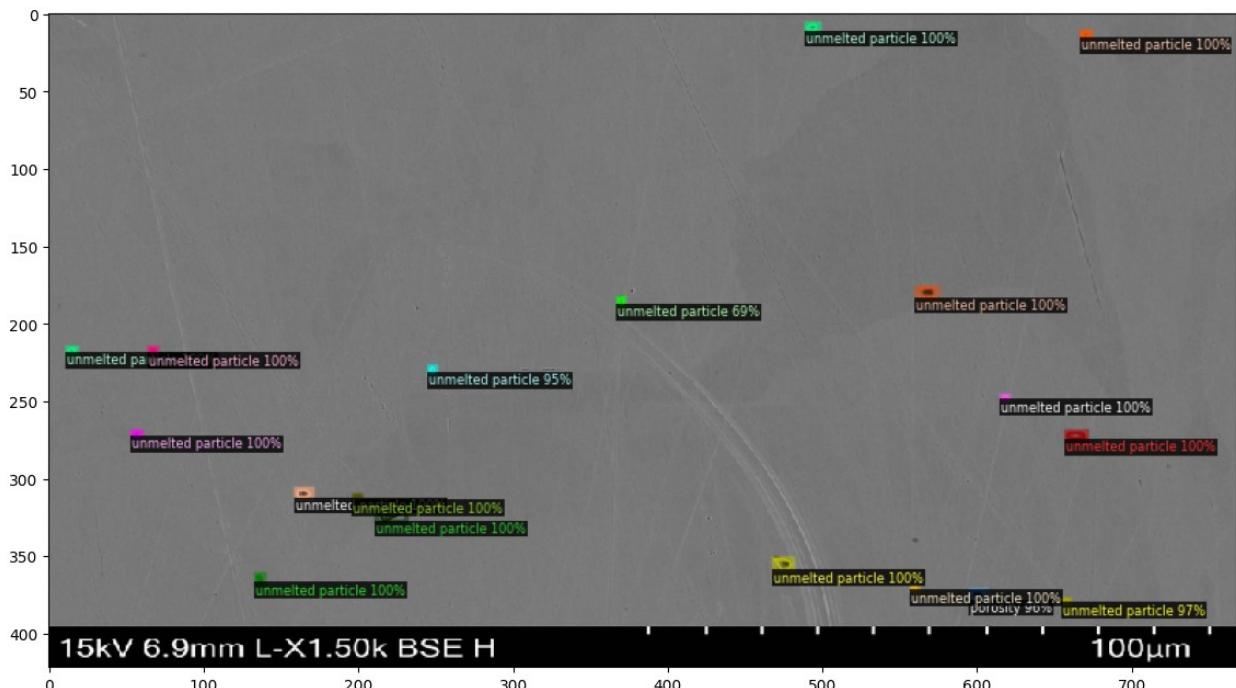
```
from detectron2.utils.visualizer import ColorMode

im =
cv2.imread("/content/drive/MyDrive/Mahabub/test/rsz_slm_square_finalx1
5k_0060.jpg")
outputs = predictor(im)
```

```

v = Visualizer(im[:, :, ::-1],
               metadata=r_metadata,
               scale=0.8,
               instance_mode=ColorMode.IMAGE_BW # remove the colors
               of unsegmented pixels
)
v = v.draw_instance_predictions(outputs["instances"].to("cpu"))
plt.figure(figsize = (14, 10))
plt.imshow(cv2.cvtColor(v.get_image()[:, :, ::-1], cv2.COLOR_BGR2RGB))
plt.show()

```



```

from detectron2.evaluation import COCOEvaluator, inference_on_dataset
from detectron2.data import build_detection_test_loader
evaluator = COCOEvaluator("p_train", ['bbox'], False,
output_dir="./output/")
val_loader = build_detection_test_loader(cfg, "p_train")
print(inference_on_dataset(predictor.model, val_loader, evaluator))

[08/02 22:08:25 d2.evaluation.coco_evaluation]: Trying to convert
'p_train' to COCO format ...
[08/02 22:08:25 d2.data.datasets.coco]: Converting annotations of
dataset 'p_train' to COCO format ...
[08/02 22:08:26 d2.data.datasets.coco]: Converting dataset dicts into
COCO format
[08/02 22:08:26 d2.data.datasets.coco]: Conversion finished, #images:
42, #annotations: 715
[08/02 22:08:26 d2.data.datasets.coco]: Caching COCO format
annotations at './output/p_train_coco_format.json' ...

```

```
[08/02 22:08:26 d2.data.dataset_mapper]: [DatasetMapper] Augmentations used in inference: [ResizeShortestEdge(short_edge_length=(800, 800), max_size=1333, sample_style='choice')]
[08/02 22:08:26 d2.data.common]: Serializing the dataset using: <class 'detectron2.data.common._TorchSerializedList'>
[08/02 22:08:26 d2.data.common]: Serializing 42 elements to byte tensors and concatenating them all ...
[08/02 22:08:26 d2.data.common]: Serialized dataset takes 0.16 MiB
[08/02 22:08:26 d2.evaluation.evaluator]: Start inference on 42 batches
[08/02 22:08:27 d2.evaluation.evaluator]: Inference done 11/42.
Dataloading: 0.0012 s/iter. Inference: 0.0381 s/iter. Eval: 0.0178 s/iter. Total: 0.0571 s/iter. ETA=0:00:01
[08/02 22:08:28 d2.evaluation.evaluator]: Total inference time: 0:00:01.936199 (0.052330 s / iter per device, on 1 devices)
[08/02 22:08:28 d2.evaluation.evaluator]: Total inference pure compute time: 0:00:01 (0.033821 s / iter per device, on 1 devices)
[08/02 22:08:28 d2.evaluation.coco_evaluation]: Preparing results for COCO format ...
[08/02 22:08:28 d2.evaluation.coco_evaluation]: Saving results to ./output/coco_instances_results.json
[08/02 22:08:28 d2.evaluation.coco_evaluation]: Evaluating predictions with unofficial COCO API...
Loading and preparing results...
DONE (t=0.00s)
creating index...
index created!
[08/02 22:08:28 d2.evaluation.fast_eval_api]: Evaluate annotation type *bbox*
[08/02 22:08:28 d2.evaluation.fast_eval_api]: COCOeval_opt.evaluate() finished in 0.02 seconds.
[08/02 22:08:28 d2.evaluation.fast_eval_api]: Accumulating evaluation results...
[08/02 22:08:28 d2.evaluation.fast_eval_api]:
COCOeval_opt.accumulate() finished in 0.01 seconds.
  Average Precision (AP) @[ IoU=0.50:0.95 | area=   all | maxDets=100 ] = 0.825
  Average Precision (AP) @[ IoU=0.50      | area=   all | maxDets=100 ] = 0.911
  Average Precision (AP) @[ IoU=0.75      | area=   all | maxDets=100 ] = 0.907
  Average Precision (AP) @[ IoU=0.50:0.95 | area= small | maxDets=100 ] = 0.815
  Average Precision (AP) @[ IoU=0.50:0.95 | area=medium | maxDets=100 ] = 0.967
  Average Precision (AP) @[ IoU=0.50:0.95 | area=large | maxDets=100 ] = -1.000
  Average Recall    (AR) @[ IoU=0.50:0.95 | area=   all | maxDets=1 ] = 0.349
```

```

Average Recall      (AR) @[ IoU=0.50:0.95 | area=   all | maxDets=
10 ] = 0.742
Average Recall      (AR) @[ IoU=0.50:0.95 | area=   all |
maxDets=100 ] = 0.848
Average Recall      (AR) @[ IoU=0.50:0.95 | area= small |
maxDets=100 ] = 0.837
Average Recall      (AR) @[ IoU=0.50:0.95 | area=medium |
maxDets=100 ] = 0.967
Average Recall      (AR) @[ IoU=0.50:0.95 | area=large |
maxDets=100 ] = -1.000
[08/02 22:08:28 d2.evaluation.coco_evaluation]: Evaluation results for
bbox:
| AP      | AP50    | AP75    | APs     | APm     | APl     |
| :-----:|:-----:|:-----:|:-----:|:-----:|:-----:|
| 82.475 | 91.089 | 90.739 | 81.450 | 96.667 | nan     |
[08/02 22:08:28 d2.evaluation.coco_evaluation]: Some metrics cannot be
computed and is shown as NaN.
[08/02 22:08:28 d2.evaluation.coco_evaluation]: Per-category bbox AP:
| category        | AP       | category        | AP       | category        | AP
| :-----|:-----|:-----|:-----|:-----|:-----|
| unmelted particle | 87.578 | porosity        | 93.426 | microcrack    | 66.421 |
OrderedDict([('bbox', {'AP': 82.47508983817998, 'AP50':
91.08858338063108, 'AP75': 90.73949258616574, 'APs':
81.45036592025427, 'APm': 96.66666666666667, 'APl': nan, 'AP-unmelted
particle': 87.57794603246084, 'AP-porosity': 93.4258241892927, 'AP-
microcrack': 66.42149929278642})))

```

```
!pip install ultralytics==8.0.20

from IPython import display
display.clear_output()

import ultralytics
ultralytics.checks()

Ultralytics YOLOv8.0.20 🚀 Python-3.10.6 torch-2.0.1+cu118 CUDA:0
(Tesla V100-SXM2-16GB, 16151MiB)
Setup complete ✅ (2 CPUs, 12.7 GB RAM, 24.3/78.2 GB disk)

!pip install roboflow

from roboflow import Roboflow
rf = Roboflow(api_key="RryrqjLPNrma5c1REwoU")
project = rf.workspace("bangor-university").project("yolov8-lj3oc")
dataset = project.version(1).download("yolov8")
# tmr gul

Collecting roboflow
  Downloading roboflow-1.1.2-py3-none-any.whl (57 kB)
  ━━━━━━━━━━━━━━━━ 57.4/57.4 kB 1.6 MB/s eta
0:00:00
  roboflow)
    Downloading certifi-2022.12.7-py3-none-any.whl (155 kB)
    ━━━━━━━━━━━━━━ 155.3/155.3 kB 6.7 MB/s eta
0:00:00
  ent already satisfied: chardet==4.0.0 in
  /usr/local/lib/python3.10/dist-packages (from roboflow) (4.0.0)
  Collecting cycler==0.10.0 (from roboflow)
    Downloading cycler-0.10.0-py2.py3-none-any.whl (6.5 kB)
  Collecting idna==2.10 (from roboflow)
    Downloading idna-2.10-py2.py3-none-any.whl (58 kB)
  ━━━━━━━━━━━━━━ 58.8/58.8 kB 8.6 MB/s eta
0:00:00
  ent already satisfied: kiwisolver>=1.3.1 in
  /usr/local/lib/python3.10/dist-packages (from roboflow) (1.4.4)
  Requirement already satisfied: matplotlib in
  /usr/local/lib/python3.10/dist-packages (from roboflow) (3.7.1)
  Requirement already satisfied: numpy>=1.18.5 in
  /usr/local/lib/python3.10/dist-packages (from roboflow) (1.22.4)
  Requirement already satisfied: opencv-python>=4.1.2 in
  /usr/local/lib/python3.10/dist-packages (from roboflow) (4.7.0.72)
  Requirement already satisfied: Pillow>=7.1.2 in
  /usr/local/lib/python3.10/dist-packages (from roboflow) (8.4.0)
  Collecting pyparsing==2.4.7 (from roboflow)
    Downloading pyparsing-2.4.7-py2.py3-none-any.whl (67 kB)
  ━━━━━━━━━━━━━━ 67.8/67.8 kB 9.1 MB/s eta
0:00:00
```

```
Requirement already satisfied: python-dateutil in
/usr/local/lib/python3.10/dist-packages (from roboflow) (2.8.2)
Collecting python-dotenv (from roboflow)
  Downloading python_dotenv-1.0.0-py3-none-any.whl (19 kB)
Requirement already satisfied: requests in
/usr/local/lib/python3.10/dist-packages (from roboflow) (2.27.1)
Requirement already satisfied: six in /usr/local/lib/python3.10/dist-
packages (from roboflow) (1.16.0)
Collecting supervision (from roboflow)
  Downloading supervision-0.12.0-py3-none-any.whl (48 kB)
                                         48.5/48.5 kB 7.0 MB/s eta
0:00:00
Requirement already satisfied: urllib3>=1.26.6 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (1.26.16)
Collecting wget (from roboflow)
  Downloading wget-3.2.zip (10 kB)
  Preparing metadata (setup.py) ... Requirement already satisfied:
tqdm>=4.41.0 in /usr/local/lib/python3.10/dist-packages (from
roboflow) (4.65.0)
Requirement already satisfied: PyYAML>=5.3.1 in
/usr/local/lib/python3.10/dist-packages (from roboflow) (6.0.1)
Collecting requests-toolbelt (from roboflow)
  Downloading requests_toolbelt-1.0.0-py2.py3-none-any.whl (54 kB)
                                         54.5/54.5 kB 8.0 MB/s eta
0:00:00
Requirement already satisfied: contourpy>=1.0.1 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->roboflow)
(1.1.0)
Requirement already satisfied: fonttools>=4.22.0 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->roboflow)
(4.41.0)
Requirement already satisfied: packaging>=20.0 in
/usr/local/lib/python3.10/dist-packages (from matplotlib->roboflow)
(23.1)
Requirement already satisfied: charset-normalizer~=2.0.0 in
/usr/local/lib/python3.10/dist-packages (from requests->roboflow)
(2.0.12)
Requirement already satisfied: opencv-python-
headless<5.0.0.0,>=4.8.0.74 in /usr/local/lib/python3.10/dist-packages
(from supervision->roboflow) (4.8.0.74)
Building wheels for collected packages: wget
  Building wheel for wget (setup.py) ... e=wget-3.2-py3-none-any.whl
size=9657
sha256=fc7aca9717fde732c83df62aa2a6592d3c1f4471f41d335451b10f4377eb0f2
d
  Stored in directory:
/root/.cache/pip/wheels/8b/f1/7f/5c94f0a7a505calc81cd1d9208ae2064675d9
7582078e6c769
Successfully built wget
```

```
Installing collected packages: wget, python-dotenv, pyparsing, idna, cycler, certifi, supervision, requests-toolbelt, roboflow
  Attempting uninstall: pyparsing
    Found existing installation: pyparsing 3.1.0
  Uninstalling pyparsing-3.1.0:
    Successfully uninstalled pyparsing-3.1.0
  Attempting uninstall: idna
    Found existing installation: idna 3.4
  Uninstalling idna-3.4:
    Successfully uninstalled idna-3.4
  Attempting uninstall: cycler
    Found existing installation: cycler 0.11.0
  Uninstalling cycler-0.11.0:
    Successfully uninstalled cycler-0.11.0
  Attempting uninstall: certifi
    Found existing installation: certifi 2023.5.7
  Uninstalling certifi-2023.5.7:
    Successfully uninstalled certifi-2023.5.7
Successfully installed certifi-2022.12.7 cycler-0.10.0 idna-2.10 pyparsing-2.4.7 python-dotenv-1.0.0 requests-toolbelt-1.0.0 roboflow-1.1.2 supervision-0.12.0 wget-3.2
{"pip_warning": {"packages": ["certifi", "cycler", "idna", "pyparsing"]}}
```

loading Roboflow workspace...

loading Roboflow project...

Dependency ultralytics==8.0.134 is required but found version=8.0.20, to fix: `pip install ultralytics==8.0.134`

Downloading Dataset Version Zip in yolov8-1 to yolov8: 100% [1337743 / 1337743] bytes

Extracting Dataset Version Zip to yolov8-1 in yolov8:: 100%|██████████| 125/125 [00:00<00:00, 4364.59it/s]

```
!pip install ultralytics==8.0.20
```

```
from IPython import display
display.clear_output()

import ultralytics
ultralytics.checks()
```

```
Ultralytics YOL0v8.0.20 🚀 Python-3.10.6 torch-2.0.1+cu118 CUDA:0
(Tesla V100-SXM2-16GB, 16151MiB)
Setup complete ✅ (2 CPUs, 12.7 GB RAM, 24.3/78.2 GB disk)
```

```
from ultralytics import YOLO
```

```
from IPython.display import display, Image
```

```
%cd /content/yolov8-1

!yolo task=detect mode=train model=yolov8s.pt data= '/content/yolov8-1/data.yaml' epochs=10000 plots=True

/content/yolov8-1
Downloading
https://github.com/ultralytics/assets/releases/download/v0.0.0/yolov8s.pt to yolov8s.pt...
100% 21.5M/21.5M [00:00<00:00, 166MB/s]

Ultralytics YOLOv8.0.20 🚀 Python-3.10.6 torch-2.0.1+cu118 CUDA:0
(Tesla V100-SXM2-16GB, 16151MiB)
yolo/engine/trainer: task=detect, mode=train, model=yolov8s.yaml,
data=/content/yolov8-1/data.yaml, epochs=10000, patience=50, batch=16,
imgsz=640, save=True, cache=False, device=, workers=8, project=None,
name=None, exist_ok=False, pretrained=False, optimizer=SGD,
verbose=True, seed=0, deterministic=True, single_cls=False,
image_weights=False, rect=False, cos_lr=False, close_mosaic=10,
resume=False, overlap_mask=True, mask_ratio=4, dropout=False,
val=True, save_json=False, save_hybrid=False, conf=0.001, iou=0.7,
max_det=300, half=False, dnn=False, plots=True,
source=ultralytics/assets/, show=False, save_txt=False,
save_conf=False, save_crop=False, hide_labels=False, hide_conf=False,
vid_stride=1, line_thickness=3, visualize=False, augment=False,
agnostic_nms=False, classes=None, retina_masks=False, boxes=True,
format=torchscript, keras=False, optimize=False, int8=False,
dynamic=False, simplify=False, opset=17, workspace=4, nms=False,
lr0=0.01, lrf=0.01, momentum=0.937, weight_decay=0.001,
warmup_epochs=3.0, warmup_momentum=0.8, warmup_bias_lr=0.1, box=7.5,
cls=0.5, dfl=1.5, fl_gamma=0.0, label_smoothing=0.0, nbs=64,
hsv_h=0.015, hsv_s=0.7, hsv_v=0.4, degrees=0.0, translate=0.1,
scale=0.5, shear=0.0, perspective=0.0, flipud=0.0, fliplr=0.5,
mosaic=1.0, mixup=0.0, copy_paste=0.0, cfg=None, v5loader=False,
save_dir=runs/detect/train
Downloading https://ultralytics.com/assets/Arial.ttf to
/root/.config/Ultralytics/Arial.ttf...
100% 755k/755k [00:00<00:00, 17.1MB/s]
2023-07-25 20:41:55.288504: I
tensorflow/core/platform/cpu_feature_guard.cc:182] This TensorFlow
binary is optimized to use available CPU instructions in performance-
critical operations.
To enable the following instructions: AVX2 FMA, in other operations,
rebuild TensorFlow with the appropriate compiler flags.
2023-07-25 20:41:56.229400: W
tensorflow/compiler/tf2tensorrt/utils/py_utils.cc:38] TF-TRT Warning:
Could not find TensorRT
Overriding model.yaml nc=80 with nc=3
```

from	n	params	module
------	---	--------	--------

```

arguments
 0           -1  1      928 ultralytics.nn.modules.Conv
[3, 32, 3, 2]
 1           -1  1    18560 ultralytics.nn.modules.Conv
[32, 64, 3, 2]
 2           -1  1    29056 ultralytics.nn.modules.C2f
[64, 64, 1, True]
 3           -1  1    73984 ultralytics.nn.modules.Conv
[64, 128, 3, 2]
 4           -1  2   197632 ultralytics.nn.modules.C2f
[128, 128, 2, True]
 5           -1  1   295424 ultralytics.nn.modules.Conv
[128, 256, 3, 2]
 6           -1  2   788480 ultralytics.nn.modules.C2f
[256, 256, 2, True]
 7           -1  1  1180672 ultralytics.nn.modules.Conv
[256, 512, 3, 2]
 8           -1  1  1838080 ultralytics.nn.modules.C2f
[512, 512, 1, True]
 9           -1  1   656896 ultralytics.nn.modules.SPPF
[512, 512, 5]
10          -1  1      0
torch.nn.modules.upsampling.Upsample [None, 2, 'nearest']

11         [-1, 6]  1      0 ultralytics.nn.modules.Concat
[1]
12           -1  1   591360 ultralytics.nn.modules.C2f
[768, 256, 1]
13          -1  1      0
torch.nn.modules.upsampling.Upsample [None, 2, 'nearest']

14         [-1, 4]  1      0 ultralytics.nn.modules.Concat
[1]
15           -1  1   148224 ultralytics.nn.modules.C2f
[384, 128, 1]
16          -1  1   147712 ultralytics.nn.modules.Conv
[128, 128, 3, 2]
17         [-1, 12]  1      0 ultralytics.nn.modules.Concat
[1]
18           -1  1   493056 ultralytics.nn.modules.C2f
[384, 256, 1]
19          -1  1   590336 ultralytics.nn.modules.Conv
[256, 256, 3, 2]
20         [-1, 9]  1      0 ultralytics.nn.modules.Concat
[1]
21           -1  1  1969152 ultralytics.nn.modules.C2f
[768, 512, 1]
22        [15, 18, 21]  1  2117209 ultralytics.nn.modules.Detect
[3, [128, 256, 512]]

```

```
Model summary: 225 layers, 11136761 parameters, 11136745 gradients,  
28.7 GFLOPs
```

```
Transferred 349/355 items from pretrained weights  
optimizer: SGD(lr=0.01) with parameter groups 57 weight(decay=0.0), 64  
weight(decay=0.001), 63 bias  
train: Scanning /content/yolov8-1/train/labels... 52 images, 0  
backgrounds, 0 corrupt: 100% 52/52 [00:00<00:00, 979.22it/s]  
train: New cache created: /content/yolov8-1/train/labels.cache  
albumentations: Blur(p=0.01, blur_limit=(3, 7)), MedianBlur(p=0.01,  
blur_limit=(3, 7)), ToGray(p=0.01), CLAHE(p=0.01, clip_limit=(1, 4.0),  
tile_grid_size=(8, 8))  
val: Scanning /content/yolov8-1/test/labels... 6 images, 0  
backgrounds, 0 corrupt: 100% 6/6 [00:00<00:00, 1111.32it/s]  
val: New cache created: /content/yolov8-1/test/labels.cache  
Image sizes 640 train, 640 val  
Using 2 dataloader workers  
Logging results to runs/detect/train  
Starting training for 10000 epochs...
```

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
1/10000	4.37G	2.303	4.713	0.9862	65
640: 100% 4/4 [00:15<00:00, 3.93s/it]					
/usr/local/lib/python3.10/dist-packages/torch/optim/lr_scheduler.py:13					
9: UserWarning: Detected call of `lr_scheduler.step()` before					
`optimizer.step()`. In PyTorch 1.1.0 and later, you should call them					
in the opposite order: `optimizer.step()` before					
`lr_scheduler.step()`. Failure to do this will result in PyTorch					
skipping the first value of the learning rate schedule. See more					
details at https://pytorch.org/docs/stable/optim.html#how-to-adjust-learning-rate					
warnings.warn("Detected call of `lr_scheduler.step()` before					
`optimizer.step()`. "					
	Class	Images	Instances	Box(P)	R
mAP50 mAP50-95): 100% 1/1 [00:03<00:00, 3.95s/it]					
	all	6	100	0.00475	0.0476
0.00936 0.00446					
	microcrack	6	1	0	0
0 0					
	porosity	6	8	0	0
0 0					
	unmelted particle	6	91	0.0142	0.143
0.0281 0.0134					

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
1/10000	4.96G	2.308	4.638	1.029	70
640: 100% 4/4 [00:07<00:00, 1.78s/it]					
	Class	Images	Instances	Box(P)	R

mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.11it/s]						
		all	6	100	0.00368	0.0366
0.00772	0.0036	microcrack	6	1	0	0
0	0	porosity	6	8	0	0
0	0	unmelted particle	6	91	0.011	0.11
0.0232	0.0108					

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances	
Size						
3/10000	5.7G	2.319	4.885	1.006	39	
640: 100% 4/4 [00:08<00:00, 2.22s/it]						
	Class	Images	Instances	Box(P)	R	
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.62it/s]						
0.129	0.109	all	6	100	0.174	0.122
0	microcrack		6	1	0	0
0	0	porosity	6	8	0.5	0.125
0.344	0.309	unmelted particle	6	91	0.0235	0.242
0.0432	0.019					

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances	
Size						
4/10000	5.71G	2.022	2.895	0.9505	107	
640: 100% 4/4 [00:08<00:00, 2.11s/it]						
	Class	Images	Instances	Box(P)	R	
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.47it/s]						
0.364	0.173	all	6	100	0.577	0.243
0	microcrack		6	1	0	0
0	0	porosity	6	8	1	0.25
0.576	0.358	unmelted particle	6	91	0.731	0.479
0.516	0.162					

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances	
Size						
5/10000	5.71G	2.16	2.342	0.9586	45	
640: 100% 4/4 [00:07<00:00, 1.81s/it]						
	Class	Images	Instances	Box(P)	R	
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.63it/s]						
0.265	0.117	all	6	100	0.724	0.23
0	microcrack		6	1	1	0
0	0					

0.338	porosity	6	8	0.473	0.25
	0.222				
0.458	unmelted particle	6	91	0.699	0.44
	0.128				
0.25	0.134				
0	0				
0.346	porosity	6	8	0.157	0.375
	0.242				
0.403	unmelted particle	6	91	0.635	0.121
	0.16				
0.265	0.132				
0	0				
0.417	porosity	6	8	0.537	0.375
	0.279				
0.378	unmelted particle	6	91	0.564	0.363
	0.116				
0.245	0.134				
0	0				
0.442	porosity	6	8	0.946	0.375
	0.328				
0.293	unmelted particle	6	91	0.465	0.275
	0.0733				

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
9/10000	5.71G	1.867	1.728	0.9119	72
640: 100% 4/4 [00:08<00:00, 2.15s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.56it/s]	Class all	Images 6	Instances 100	Box(P 0.893 R 0.283
0.364	0.2				
0	microcrack		6	1	1 0
0	0				
0.505	0.379	porosity	6	8	0.965 0.375
0.586	0.222	unmelted particle	6	91	0.715 0.473
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
10/10000	5.71G	2.03	1.622	0.9169	105
640: 100% 4/4 [00:08<00:00, 2.07s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 3.24it/s]	Class all	Images 6	Instances 100	Box(P 0.821 R 0.274
0.306	0.152	microcrack	6	1	1 0
0	0	porosity	6	8	0.923 0.5
0.577	0.368	unmelted particle	6	91	0.539 0.321
0.341	0.0869				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
11/10000	5.71G	2.162	1.43	0.9397	87
640: 100% 4/4 [00:07<00:00, 1.81s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.74it/s]	Class all	Images 6	Instances 100	Box(P 0.857 R 0.322
0.382	0.178	microcrack	6	1	1 0
0	0	porosity	6	8	1 0.469
0.649	0.393	unmelted particle	6	91	0.57 0.496
0.498	0.14				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
12/10000	6.73G	1.893	1.579	0.9014	92
640: 100% 4/4 [00:09<00:00, 2.26s/it]					
		Class	Images	Instances	Box(P R)

mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.51it/s]						
		all	6	100	0.762	0.351
0.378	0.203	microcrack	6	1	1	0
0	0	porosity	6	8	0.649	0.625
0.641	0.44	unmelted particle	6	91	0.637	0.429
0.493	0.169					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
13/10000	6.73G	2.127	1.531	0.9202	80	
640: 100% 4/4 [00:08<00:00, 2.02s/it]						
Class Images Instances Box(P) R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 3.07it/s]						
		all	6	100	0.774	0.285
0.319	0.181	microcrack	6	1	1	0
0	0	porosity	6	8	1	0.592
0.707	0.464	unmelted particle	6	91	0.323	0.264
0.251	0.0807					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
14/10000	6.74G	2.186	1.492	0.9232	63	
640: 100% 4/4 [00:07<00:00, 1.82s/it]						
Class Images Instances Box(P) R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.56it/s]						
		all	6	100	0.776	0.355
0.574	0.284	microcrack	6	1	1	0
0.497	0.149	porosity	6	8	0.684	0.625
0.69	0.475	unmelted particle	6	91	0.645	0.44
0.534	0.228					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
15/10000	6.74G	1.951	1.386	0.9068	68	
640: 100% 4/4 [00:09<00:00, 2.30s/it]						
Class Images Instances Box(P) R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.46it/s]						
		all	6	100	0.785	0.32
0.463	0.243	microcrack	6	1	1	0
0.142	0.0426					

		porosity	6	8	0.585	0.625
0.676	0.47	unmelted particle	6	91	0.771	0.334
0.572	0.216					
		Epoch	GPU_mem	box_loss	cls_loss	dfl_loss
	Size					Instances
	16/10000	6.74G	2.035	1.572	0.8835	82
	640: 100% 4/4 [00:07<00:00, 1.96s/it]					
		Class	Images	Instances	Box(P	R
mAP50	mAP50-95): 100%	1/1 [00:00<00:00, 3.29it/s]				
		all	6	100	0.807	0.409
0.399	0.186	microcrack	6	1	1	0
0	0	porosity	6	8	1	0.59
0.766	0.423	unmelted particle	6	91	0.42	0.637
0.432	0.135					
		Epoch	GPU_mem	box_loss	cls_loss	dfl_loss
	Size					Instances
	17/10000	6.74G	1.99	1.356	0.9011	104
	640: 100% 4/4 [00:07<00:00, 1.91s/it]					
		Class	Images	Instances	Box(P	R
mAP50	mAP50-95): 100%	1/1 [00:00<00:00, 4.74it/s]				
		all	6	100	0.824	0.403
0.434	0.243	microcrack	6	1	1	0
0	0	porosity	6	8	0.749	0.75
0.765	0.518	unmelted particle	6	91	0.723	0.459
0.537	0.211					
		Epoch	GPU_mem	box_loss	cls_loss	dfl_loss
	Size					Instances
	18/10000	6.74G	2.155	1.503	0.98	36
	640: 100% 4/4 [00:08<00:00, 2.17s/it]					
		Class	Images	Instances	Box(P	R
mAP50	mAP50-95): 100%	1/1 [00:00<00:00, 4.52it/s]				
		all	6	100	0.722	0.345
0.374	0.223	microcrack	6	1	1	0
0.0262	0.0168	porosity	6	8	0.682	0.75
0.79	0.536	unmelted particle	6	91	0.483	0.286
0.305	0.116					

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
19/10000	6.74G	2.214	1.452	0.9462	45
640: 100% 4/4 [00:07<00:00, 1.90s/it]					
mAP50	mAP50-95): 100%	Class 1/1 [00:00<00:00, 2.96it/s]	Images Instances	Box(P	R
0.435	all	6	100	0.804	0.41
0.0711	microcrack	6	1	1	0
0.598	porosity	6	8	0.594	0.733
0.636	unmelted particle	6	91	0.819	0.497
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
20/10000	6.74G	2.2	1.602	0.9352	56
640: 100% 4/4 [00:07<00:00, 1.82s/it]					
mAP50	mAP50-95): 100%	Class 1/1 [00:00<00:00, 4.80it/s]	Images Instances	Box(P	R
0.287	all	6	100	0.715	0.233
0	microcrack	6	1	1	0
0.654	porosity	6	8	0.819	0.5
0.208	unmelted particle	6	91	0.324	0.198
0.0696					
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
21/10000	7.83G	2.171	1.564	0.9561	55
640: 100% 4/4 [00:09<00:00, 2.25s/it]					
mAP50	mAP50-95): 100%	Class 1/1 [00:00<00:00, 4.63it/s]	Images Instances	Box(P	R
0.324	all	6	100	0.56	0.364
0	microcrack	6	1	1	0
0.643	porosity	6	8	0.209	0.75
0.328	unmelted particle	6	91	0.471	0.342
0.105					
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
22/10000	7.83G	2.096	1.564	0.9832	58
640: 100% 4/4 [00:07<00:00, 1.94s/it]					
	Class	Images	Instances	Box(P	R

mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 3.12it/s]						
		all	6	100	0.773	0.394
0.424	0.224					
	microcrack		6	1	1	0
0.166	0.0498					
	porosity		6	8	0.948	0.625
0.75	0.501					
	unmelted particle		6	91	0.37	0.556
0.357	0.122					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
23/10000	7.83G	2.075	1.802	0.9376	86	
640: 100% 4/4 [00:07<00:00, 1.91s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.74it/s]						
		all	6	100	0.837	0.377
0.435	0.194					
	microcrack		6	1	1	0
0.0622	0.00622					
	porosity		6	8	0.839	0.75
0.699	0.395					
	unmelted particle		6	91	0.671	0.381
0.542	0.181					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
24/10000	7.83G	1.992	1.556	0.9541	59	
640: 100% 4/4 [00:08<00:00, 2.17s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.44it/s]						
		all	6	100	0.767	0.355
0.355	0.191					
	microcrack		6	1	1	0
0	0					
	porosity		6	8	0.561	0.75
0.67	0.435					
	unmelted particle		6	91	0.741	0.314
0.394	0.138					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
25/10000	7.83G	2.293	3.915	0.9859	119	
640: 100% 4/4 [00:07<00:00, 1.82s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.43it/s]						
		all	6	100	0.904	0.289
0.348	0.192					
	microcrack		6	1	1	0
0	0					

0.676	porosity	6	8	0.854	0.735
0.368	unmelted particle	6	91	0.858	0.133
0.346	0.203				
0	microcrack	6	1	1	0
0.644	0.472				
0.394	unmelted particle	6	91	0.623	0.407
0.304	0.136				
0.648	0.314				
0.995	0.373				
0.644	0.456				
0.304	unmelted particle	6	91	0.655	0.25
0.304	0.114				
0.408	0.192				
0.199	0.0443				
0.697	0.426				
0.328	unmelted particle	6	91	0.749	0.319
0.104					

Epoch GPU_mem box_loss cls_loss dfl_loss Instances
Size 26/10000 7.83G 2.242 1.882 0.9672 132
640: 100% 4/4 [00:08<00:00, 2.11s/it]
Class Images Instances Box(P) R
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.85it/s]
all 6 100 0.762 0.386

Epoch GPU_mem box_loss cls_loss dfl_loss Instances
Size 27/10000 7.83G 2.162 1.734 0.9455 89
640: 100% 4/4 [00:09<00:00, 2.25s/it]
Class Images Instances Box(P) R
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.54it/s]
all 6 100 0.64 0.333

Epoch GPU_mem box_loss cls_loss dfl_loss Instances
Size 28/10000 7.83G 2.171 1.991 0.9516 81
640: 100% 4/4 [00:07<00:00, 1.80s/it]
Class Images Instances Box(P) R
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.53it/s]
all 6 100 0.711 0.356

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
29/10000	7.83G	2.293	1.413	0.9769	58
640: 100% 4/4 [00:08<00:00, 2.04s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.41it/s]	Class all	Images 6	Instances 100	Box(P 0.852 R 0.325
0.354	0.18				
0	microcrack		6	1	1 0
0	0				
0.735	0.421		6	8	1 0.616
0.327	unmelted particle		6	91	0.557 0.359
0.327	0.119				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
30/10000	7.83G	2.131	1.648	0.9865	77
640: 100% 4/4 [00:08<00:00, 2.11s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.78it/s]	Class all	Images 6	Instances 100	Box(P 0.758 R 0.356
0.42	0.198				
0.142	microcrack		6	1	1 0
0.142	0.0426				
0.68	porosity		6	8	0.446 0.75
0.68	0.402				
0.439	unmelted particle		6	91	0.828 0.317
0.439	0.15				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
31/10000	7.83G	1.936	1.73	0.9228	56
640: 100% 4/4 [00:07<00:00, 1.88s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.66it/s]	Class all	Images 6	Instances 100	Box(P 0.777 R 0.296
0.348	0.169				
0.111	microcrack		6	1	1 0
0.111	0.0221				
0.652	porosity		6	8	0.754 0.625
0.652	0.383				
0.283	unmelted particle		6	91	0.577 0.264
0.283	0.103				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
32/10000	7.83G	2.151	1.292	0.944	70
640: 100% 4/4 [00:08<00:00, 2.23s/it]					
	Class	Images	Instances	Box(P	R

mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.60it/s]						
		all	6	100	0.798	0.358
0.554	0.224	microcrack	6	1	1	0
0.497	0.0995	porosity	6	8	0.563	0.75
0.646	0.383	unmelted particle	6	91	0.831	0.324
0.519	0.189					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
33/10000	7.83G	2.08	1.569	0.9406	110	
640: 100% 4/4 [00:08<00:00, 2.18s/it]						
	Class	Images	Instances	Box(P)	R	
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.40it/s]						
	all	6	100	0.76	0.309	
0.277	0.155	microcrack	6	1	1	0
0	0	porosity	6	8	0.682	0.75
0.624	0.395	unmelted particle	6	91	0.597	0.176
0.207	0.0691					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
34/10000	7.83G	2.202	1.301	0.9586	59	
640: 100% 4/4 [00:07<00:00, 1.81s/it]						
	Class	Images	Instances	Box(P)	R	
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.53it/s]						
	all	6	100	0.8	0.389	
0.528	0.243	microcrack	6	1	1	0
0.497	0.149	porosity	6	8	0.725	0.75
0.653	0.465	unmelted particle	6	91	0.675	0.418
0.435	0.115					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
35/10000	7.83G	2.375	1.316	1.031	62	
640: 100% 4/4 [00:08<00:00, 2.16s/it]						
	Class	Images	Instances	Box(P)	R	
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.69it/s]						
	all	6	100	0.819	0.353	
0.709	0.221	microcrack	6	1	1	0
0.995	0.133					

0.591	porosity	6	8	0.522	0.75
	0.344				
0.542	unmelted particle	6	91	0.934	0.309
	0.185				
0.424	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss
0	Size				Instances
36/10000		7.83G	2.029	1.847	0.942
640: 100% 4/4 [00:08<00:00, 2.05s/it]					63
mAP50	Class	Images	Instances	Box(P	R
mAP50-95): 100%	1/1 [00:00<00:00, 2.97it/s]				
0.664	all	6	100	0.791	0.394
0.609	0.201				
0	microcrack	6	1	1	0
0.664	0.415				
0.609	unmelted particle	6	91	0.867	0.432
0.609	0.187				
0.369	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss
0.199	Size				Instances
37/10000		7.83G	1.912	1.147	0.9333
640: 100% 4/4 [00:07<00:00, 1.82s/it]					62
mAP50	Class	Images	Instances	Box(P	R
mAP50-95): 100%	1/1 [00:00<00:00, 4.31it/s]				
0.655	all	6	100	0.766	0.269
0.253	0.145				
0.199	microcrack	6	1	1	0
0.655	0.0236				
0.253	porosity	6	8	0.885	0.5
0.596	0.351				
0.253	unmelted particle	6	91	0.412	0.308
0.253	0.0606				
0.415	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss
0.0172	Size				Instances
38/10000		7.83G	2.419	1.799	0.9782
640: 100% 4/4 [00:08<00:00, 2.22s/it]					97
mAP50	Class	Images	Instances	Box(P	R
mAP50-95): 100%	1/1 [00:00<00:00, 4.62it/s]				
0.632	all	6	100	0.772	0.386
0.596	0.203				
0.0172	microcrack	6	1	1	0
0.632	0.00172				
0.596	porosity	6	8	0.447	0.75
0.596	0.407				
0.596	unmelted particle	6	91	0.87	0.407
0.596	0.202				

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
39/10000	7.83G	1.952	1.302	0.9078	101
640: 100% 4/4 [00:08<00:00, 2.06s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 2.83it/s]	Class	Images	Instances	Box(P R
0.315	0.157	all	6	100	0.69 0.306
0	microcrack		6	1	1 0
0	0		6	8	0.627 0.631
0.655	0.383		6	91	0.442 0.286
0.29	unmelted particle		6		
0.29	0.0881				
Size					
40/10000	7.83G	2.265	1.448	0.9639	70
640: 100% 4/4 [00:07<00:00, 1.83s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.16it/s]	Class	Images	Instances	Box(P R
0.346	0.159	all	6	100	0.784 0.304
0	microcrack		6	1	1 0
0	0		6	8	0.484 0.625
0.535	0.316		6	91	0.867 0.287
0.503	unmelted particle		6		
0.503	0.161				
Size					
41/10000	7.83G	2.238	1.437	0.9741	56
640: 100% 4/4 [00:08<00:00, 2.20s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.57it/s]	Class	Images	Instances	Box(P R
0.393	0.178	all	6	100	0.833 0.337
0	microcrack		6	1	1 0
0	0		6	8	0.774 0.625
0.712	0.408		6	91	0.726 0.385
0.468	unmelted particle		6		
0.468	0.127				
Size					
42/10000	7.83G	2.036	1.092	0.957	58
640: 100% 4/4 [00:08<00:00, 2.05s/it]					
		Class	Images	Instances	Box(P R

mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 3.11it/s]						
		all	6	100	0.37	0.544
0.515	0.242					
	microcrack		6	1	0.21	0.421
0.497	0.149					
	porosity		6	8	0.421	0.75
0.606	0.456					
	unmelted particle		6	91	0.478	0.462
0.44	0.12					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
43/10000	7.83G	2.455	1.223	0.982	102	
640: 100% 4/4 [00:07<00:00, 1.82s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.59it/s]						
		all	6	100	0.75	0.385
0.441	0.216					
	microcrack		6	1	1	0
0.249	0.0995					
	porosity		6	8	0.591	0.75
0.598	0.382					
	unmelted particle		6	91	0.66	0.405
0.476	0.167					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
44/10000	7.83G	2.242	1.094	0.9446	66	
640: 100% 4/4 [00:08<00:00, 2.14s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.47it/s]						
		all	6	100	0.705	0.292
0.323	0.133					
	microcrack		6	1	1	0
0.199	0.0199					
	porosity		6	8	0.554	0.625
0.498	0.305					
	unmelted particle		6	91	0.561	0.252
0.271	0.0748					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
45/10000	7.83G	2.216	1.101	0.9403	98	
640: 100% 4/4 [00:07<00:00, 1.93s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 3.19it/s]						
		all	6	100	0.491	0.755
0.671	0.276					
	microcrack		6	1	0.786	1
0.995	0.298					

0.538	porosity	6	8	0.307	0.75
0.348	unmelted particle	6	91	0.38	0.516
0.48	0.18				
0.383	0.169				
0.0108	microcrack	6	1	1	0
0.611	0.331	6	8	0.651	0.702
0.527	unmelted particle	6	91	0.463	0.511
0.173					
0.732	0.243				
0.995	0.199	6	1	0.947	1
0.615	porosity	6	8	0.363	0.625
0.584	0.335	6	91	0.392	0.626
0.194	unmelted particle				
0.669	0.234				
0.995	0.298	6	1	0.912	1
0.418	porosity	6	8	0.294	0.5
0.595	0.209	6	91	0.559	0.527
0.194	unmelted particle				

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
49/10000	7.83G	1.879	1.153	0.92	79
640: 100% 4/4 [00:07<00:00, 1.98s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.60it/s]	Class all	Images 6	Instances 100	Box(P 0.773 R 0.35
0.709	0.242	microcrack	6	1	1 0
0.995	0.199	porosity	6	8	0.486 0.5
0.497	0.309	unmelted particle	6	91	0.833 0.549
0.635	0.219				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
50/10000	7.83G	2.138	1.189	0.9367	105
640: 100% 4/4 [00:08<00:00, 2.22s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.66it/s]	Class all	Images 6	Instances 100	Box(P 0.633 R 0.289
0.248	0.0843	microcrack	6	1	1 0
0	0	porosity	6	8	0.355 0.5
0.342	0.133	unmelted particle	6	91	0.544 0.368
0.403	0.12				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
51/10000	7.83G	2.062	1.207	0.9402	99
640: 100% 4/4 [00:07<00:00, 1.77s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.44it/s]	Class all	Images 6	Instances 100	Box(P 0.731 R 0.374
0.674	0.238	microcrack	6	1	1 0
0.995	0.256	porosity	6	8	0.413 0.617
0.47	0.278	unmelted particle	6	91	0.779 0.504
0.556	0.179				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
52/10000	7.83G	2.09	0.9636	0.9315	70
640: 100% 4/4 [00:08<00:00, 2.10s/it]					
		Class	Images	Instances	Box(P R)

mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.63it/s]						
		all	6	100	0.377	0.304
0.282	0.113					
	microcrack		6	1	0	0
0	0					
	porosity		6	8	0.434	0.625
0.446	0.212					
	unmelted particle		6	91	0.697	0.286
0.4	0.127					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
53/10000	7.83G	2.116	1.054	0.9197	90	
640: 100% 4/4 [00:08<00:00, 2.17s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.46it/s]						
		all	6	100	0.678	0.342
0.302	0.141					
	microcrack		6	1	1	0
0	0					
	porosity		6	8	0.421	0.75
0.494	0.282					
	unmelted particle		6	91	0.613	0.275
0.413	0.142					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
54/10000	7.83G	1.971	1.143	0.9977	35	
640: 100% 4/4 [00:07<00:00, 1.81s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.55it/s]						
		all	6	100	0.837	0.25
0.293	0.156					
	microcrack		6	1	1	0
0	0					
	porosity		6	8	0.713	0.621
0.549	0.329					
	unmelted particle		6	91	0.797	0.13
0.331	0.139					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
55/10000	7.83G	2.148	1.091	0.937	144	
640: 100% 4/4 [00:09<00:00, 2.26s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.53it/s]						
		all	6	100	0.712	0.265
0.29	0.144					
	microcrack		6	1	1	0
0	0					

0.586	porosity	6	8	0.614	0.598
	0.34				
0.283	unmelted particle	6	91	0.522	0.198
	0.091				
Epoch GPU_mem box_loss cls_loss dfl_loss Instances					
Size					
56/10000	7.83G	1.99	1.002	0.9339	100
640: 100% 4/4 [00:08<00:00, 2.18s/it]					
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.52it/s]					
	Class all	Images 6	Instances 100	Box(P) 0.675	R 0.377
0.415	microcrack	6	1	1	0
0.249	porosity	6	8	0.38	0.75
0.563	0.333				
0.434	unmelted particle	6	91	0.646	0.38
	0.147				
Epoch GPU_mem box_loss cls_loss dfl_loss Instances					
Size					
57/10000	7.83G	2.124	0.9906	0.946	52
640: 100% 4/4 [00:07<00:00, 1.88s/it]					
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.48it/s]					
	Class all	Images 6	Instances 100	Box(P) 0.868	R 0.299
0.71	microcrack	6	1	1	0
0.995	porosity	6	8	0.742	0.5
0.582	0.361				
0.552	unmelted particle	6	91	0.863	0.396
	0.221				
Epoch GPU_mem box_loss cls_loss dfl_loss Instances					
Size					
58/10000	7.83G	2.073	0.9515	0.9572	76
640: 100% 4/4 [00:09<00:00, 2.27s/it]					
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.34it/s]					
	Class all	Images 6	Instances 100	Box(P) 0.467	R 0.636
0.602	microcrack	6	1	0.719	1
0.995	porosity	6	8	0.428	0.625
0.577	0.35				
0.233	unmelted particle	6	91	0.254	0.284
	0.0774				

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
59/10000	7.83G	2.136	1.087	0.9628	60
640: 100% 4/4 [00:08<00:00, 2.14s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.46it/s]	Class all	Images 6	Instances 100	Box(P 0.517 R 0.725
0.705	0.376	microcrack	6	1	0.584 1
0.995	0.497	porosity	6	8	0.428 0.625
0.539	0.386	unmelted particle	6	91	0.538 0.549
0.579	0.244				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
60/10000	7.83G	1.996	0.9151	0.9365	69
640: 100% 4/4 [00:07<00:00, 1.85s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.56it/s]	Class all	Images 6	Instances 100	Box(P 0.649 R 0.255
0.384	0.163	microcrack	6	1	1 0
0.332	0.133	porosity	6	8	0.54 0.5
0.507	0.258	unmelted particle	6	91	0.407 0.264
0.312	0.0964				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
61/10000	7.83G	2.044	0.9931	0.918	81
640: 100% 4/4 [00:08<00:00, 2.19s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.47it/s]	Class all	Images 6	Instances 100	Box(P 0.454 R 0.912
0.751	0.392	microcrack	6	1	1 1
0.995	0.497	porosity	6	8	0.0678 1
0.605	0.407	unmelted particle	6	91	0.294 0.736
0.655	0.273				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
62/10000	7.83G	2.027	0.9998	0.8943	128
640: 100% 4/4 [00:08<00:00, 2.19s/it]					
		Class	Images	Instances	Box(P R)

mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.29it/s]						
		all	6	100	0.609	0.315
0.469	0.143					
	microcrack		6	1	1	0
0.497	0.0498					
	porosity		6	8	0.403	0.625
0.539	0.254					
	unmelted particle		6	91	0.425	0.319
0.371	0.125					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
63/10000	7.83G	2.104	1.128	0.9184	116	
640: 100% 4/4 [00:07<00:00, 1.82s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.47it/s]						
		all	6	100	0.827	0.374
0.781	0.342					
	microcrack		6	1	1	0
0.995	0.321					
	porosity		6	8	0.799	0.497
0.68	0.45					
	unmelted particle		6	91	0.683	0.626
0.667	0.254					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
64/10000	7.83G	2.1	0.98	0.9371	136	
640: 100% 4/4 [00:08<00:00, 2.18s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.32it/s]						
		all	6	100	0.764	0.396
0.508	0.193					
	microcrack		6	1	1	0
0.332	0.0663					
	porosity		6	8	0.666	0.749
0.625	0.325					
	unmelted particle		6	91	0.626	0.44
0.568	0.188					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
65/10000	7.83G	2.051	1.015	0.9215	73	
640: 100% 4/4 [00:08<00:00, 2.24s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.38it/s]						
		all	6	100	0.841	0.442
0.478	0.238					
	microcrack		6	1	1	0
0.142	0.0284					

0.717	porosity	6	8	0.838	0.75
	0.479				
0.575	unmelted particle	6	91	0.686	0.577
	0.206				
0.605	microcrack	6	1	1	0
0.497	porosity	6	8	0.847	0.699
0.709	0.357				
0.607	unmelted particle	6	91	0.643	0.538
	0.201				
0.367	microcrack	6	1	1	0
0	porosity	6	8	0.845	0.75
0.692	0.405				
0.41	unmelted particle	6	91	0.523	0.429
	0.139				
0.525	microcrack	6	1	1	0
0.332	porosity	6	8	0.825	0.593
0.68	0.378				
0.562	unmelted particle	6	91	0.667	0.516
	0.195				

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
69/10000	7.83G	1.898	0.873	0.9063	125
640: 100% 4/4 [00:07<00:00, 1.91s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.58it/s]	Class	Images	Instances	Box(P R
0.441	0.194	all	6	100	0.766 0.306
0.332	0.0663	microcrack	6	1	1 0
0.627	0.407	porosity	6	8	0.823 0.587
0.365	0.108	unmelted particle	6	91	0.473 0.33
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
70/10000	7.83G	1.905	0.9229	0.9125	84
640: 100% 4/4 [00:08<00:00, 2.24s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.40it/s]	Class	Images	Instances	Box(P R
0.488	0.242	all	6	100	0.772 0.389
0.332	0.0663	microcrack	6	1	1 0
0.673	0.466	porosity	6	8	0.703 0.75
0.458	0.193	unmelted particle	6	91	0.612 0.418
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
71/10000	7.83G	1.9	0.892	0.9269	106
640: 100% 4/4 [00:08<00:00, 2.07s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 2.99it/s]	Class	Images	Instances	Box(P R
0.409	0.163	all	6	100	0.707 0.255
0.332	0.0332	microcrack	6	1	1 0
0.574	0.357	porosity	6	8	0.654 0.5
0.321	0.0992	unmelted particle	6	91	0.467 0.264
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
72/10000	7.83G	1.895	0.8608	0.898	97
640: 100% 4/4 [00:07<00:00, 1.93s/it]					
		Class	Images	Instances	Box(P R

mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.33it/s]						
		all	6	100	0.769	0.305
0.466	0.21					
	microcrack		6	1	1	0
0.332	0.0663					
	porosity		6	8	0.604	0.5
0.579	0.371					
	unmelted particle		6	91	0.702	0.414
0.487	0.192					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
73/10000	7.83G	1.974	0.9309	0.9141	81	
640: 100% 4/4 [00:08<00:00, 2.19s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.64it/s]						
		all	6	100	0.899	0.269
0.467	0.197					
	microcrack		6	1	1	0
0.332	0.0995					
	porosity		6	8	1	0.489
0.628	0.343					
	unmelted particle		6	91	0.697	0.319
0.443	0.148					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
74/10000	7.83G	1.841	0.9313	0.9234	81	
640: 100% 4/4 [00:08<00:00, 2.11s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 2.92it/s]						
		all	6	100	0.834	0.321
0.541	0.216					
	microcrack		6	1	1	0
0.497	0.0498					
	porosity		6	8	0.771	0.5
0.567	0.388					
	unmelted particle		6	91	0.732	0.462
0.558	0.211					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
75/10000	7.83G	1.866	0.9023	0.9076	109	
640: 100% 4/4 [00:07<00:00, 1.88s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.34it/s]						
		all	6	100	0.804	0.406
0.424	0.218					
	microcrack		6	1	1	0
0	0					

		porosity	6	8	0.844	0.68
0.715	0.458	unmelted particle	6	91	0.567	0.538
0.557	0.197					
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
76/10000	7.83G	1.816	0.9408	0.8752	62	
640: 100% 4/4 [00:08<00:00, 2.24s/it]						
mAP50	mAP50-95): 100%	Class 1/1 [00:00<00:00, 4.56it/s]	Images	Instances	Box(P)	R
0.626	0.278	all	6	100	0.818	0.41
0.497	0.0995	microcrack	6	1	1	0
0.727	0.46	porosity	6	8	0.795	0.625
0.652	0.273	unmelted particle	6	91	0.658	0.604
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
77/10000	7.83G	1.921	0.9401	0.9114	63	
640: 100% 4/4 [00:08<00:00, 2.07s/it]						
mAP50	mAP50-95): 100%	Class 1/1 [00:00<00:00, 2.76it/s]	Images	Instances	Box(P)	R
0.588	0.222	all	6	100	0.818	0.38
0.497	0.0498	microcrack	6	1	1	0
0.642	0.393	porosity	6	8	0.802	0.625
0.624	0.224	unmelted particle	6	91	0.653	0.516
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
78/10000	7.83G	1.817	0.9545	0.8969	46	
640: 100% 4/4 [00:07<00:00, 1.87s/it]						
mAP50	mAP50-95): 100%	Class 1/1 [00:00<00:00, 4.32it/s]	Images	Instances	Box(P)	R
0.66	0.297	all	6	100	0.896	0.437
0.497	0.0995	microcrack	6	1	1	0
0.804	0.535	porosity	6	8	0.955	0.75
0.679	0.257	unmelted particle	6	91	0.732	0.56

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
79/10000	7.83G	1.849	0.9535	0.8945	86
640: 100% 4/4 [00:08<00:00, 2.23s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.27it/s]	Class all	Images 6	Instances 100	Box(P 0.939 R 0.415
0.486	0.252	microcrack	6	1	1 0
0	0	porosity	6	8	0.937 0.75
0.785	0.5	unmelted particle	6	91	0.879 0.495
0.673	0.257				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
80/10000	7.83G	1.859	0.9312	0.9194	82
640: 100% 4/4 [00:08<00:00, 2.17s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 2.70it/s]	Class all	Images 6	Instances 100	Box(P 0.934 R 0.426
0.511	0.277	microcrack	6	1	1 0
0	0	porosity	6	8	1 0.727
0.809	0.557	unmelted particle	6	91	0.802 0.549
0.724	0.274				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
81/10000	7.83G	1.982	0.926	0.9096	84
640: 100% 4/4 [00:07<00:00, 1.90s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.34it/s]	Class all	Images 6	Instances 100	Box(P 0.487 R 0.796
0.657	0.283	microcrack	6	1	0.441 1
0.497	0.0498	porosity	6	8	0.38 0.75
0.801	0.561	unmelted particle	6	91	0.64 0.637
0.672	0.239				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
82/10000	7.83G	1.936	0.8637	0.9404	96
640: 100% 4/4 [00:09<00:00, 2.29s/it]					
		Class	Images	Instances	Box(P R)

mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.40it/s]						
		all	6	100	0.619	0.774
0.838	0.339	microcrack	6	1	0.491	1
0.995	0.144	porosity	6	8	0.62	0.75
0.817	0.564	unmelted particle	6	91	0.746	0.571
0.703	0.311					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
83/10000	7.83G	1.844	0.8663	0.9159	148	
640: 100% 4/4 [00:08<00:00, 2.11s/it]						
	Class	Images	Instances	Box(P)	R	
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 2.92it/s]						
	all	6	100	0.482	0.781	
0.618	0.258	microcrack	6	1	0.438	1
0.497	0.0498	porosity	6	8	0.393	0.75
0.691	0.483	unmelted particle	6	91	0.616	0.593
0.667	0.241					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
84/10000	7.83G	1.909	0.9439	0.9101	123	
640: 100% 4/4 [00:07<00:00, 1.93s/it]						
	Class	Images	Instances	Box(P)	R	
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.50it/s]						
	all	6	100	0.479	0.799	
0.821	0.334	microcrack	6	1	0.44	1
0.995	0.124	porosity	6	8	0.397	0.75
0.785	0.581	unmelted particle	6	91	0.6	0.648
0.684	0.297					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
85/10000	7.83G	1.714	0.8654	0.9316	64	
640: 100% 4/4 [00:08<00:00, 2.22s/it]						
	Class	Images	Instances	Box(P)	R	
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.31it/s]						
	all	6	100	0.781	0.415	
0.442	0.208	microcrack	6	1	1	0
0	0					

0.643	porosity	6	8	0.56	0.75		
	0.38						
0.682	unmelted particle	6	91	0.783	0.495		
	0.245						
0.837	0.339	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
0.995	0.199	Size					
0.81	0.523	86/10000	7.83G	1.753	0.8668	0.921	72
0.707	0.297	640: 100% 4/4 [00:08<00:00, 2.08s/it]					
0.383	0.186	Class	Images	Instances	Box(P	R	
0	0	mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 3.09it/s]					
0.695	0.408	all	6	100	0.513	0.834	
0.455	0.149	0.837	0.339	0.437	1		
0.995	0.217	0.995	0.199	0.447	0.81		
0.691	0.463	0.81	0.523	0.654	0.692		
0.64	0.278	0.707	0.297	0.755	0.451		

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
89/10000	7.83G	1.684	0.8534	0.904	99
640: 100% 4/4 [00:08<00:00, 2.20s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.28it/s]	Class	Images	Instances	Box(P R
0.687	0.233	all	6	100	0.704 0.665
0.995	0.199	microcrack	6	1	0.797 1
0.595	0.342	porosity	6	8	0.698 0.625
0.472	0.157	unmelted particle	6	91	0.616 0.37
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
90/10000	7.83G	1.83	0.9238	0.8744	133
640: 100% 4/4 [00:07<00:00, 1.84s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.27it/s]	Class	Images	Instances	Box(P R
0.764	0.406	all	6	100	0.808 0.659
0.995	0.497	microcrack	6	1	0.888 1
0.674	0.458	porosity	6	8	0.618 0.625
0.624	0.264	unmelted particle	6	91	0.918 0.352
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
91/10000	7.83G	1.925	0.8911	0.9233	91
640: 100% 4/4 [00:09<00:00, 2.26s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.14it/s]	Class	Images	Instances	Box(P R
0.723	0.266	all	6	100	0.716 0.637
0.995	0.224	microcrack	6	1	0.79 1
0.715	0.423	porosity	6	8	0.649 0.625
0.458	0.15	unmelted particle	6	91	0.709 0.286
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
92/10000	7.83G	1.8	0.8433	0.8818	84
640: 100% 4/4 [00:08<00:00, 2.22s/it]					
		Class	Images	Instances	Box(P R

mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.33it/s]						
		all	6	100	0.694	0.765
0.787	0.395					
	microcrack		6	1	0.783	1
0.995	0.398					
	porosity		6	8	0.564	0.813
0.724	0.518					
	unmelted particle		6	91	0.735	0.484
0.643	0.268					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
93/10000	7.83G	1.813	0.9183	0.9186	62	
640: 100% 4/4 [00:07<00:00, 1.84s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.64it/s]						
		all	6	100	0.914	0.224
0.339	0.169					
	microcrack		6	1	1	0
0	0					
	porosity		6	8	0.904	0.5
0.644	0.378					
	unmelted particle		6	91	0.839	0.172
0.374	0.128					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
94/10000	7.83G	1.836	0.9155	0.9296	48	
640: 100% 4/4 [00:08<00:00, 2.24s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.36it/s]						
		all	6	100	0.672	0.712
0.773	0.38					
	microcrack		6	1	0.757	1
0.995	0.398					
	porosity		6	8	0.464	0.75
0.751	0.494					
	unmelted particle		6	91	0.796	0.386
0.573	0.247					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
95/10000	7.83G	1.862	0.9195	0.8784	133	
640: 100% 4/4 [00:08<00:00, 2.16s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.48it/s]						
		all	6	100	0.39	0.622
0.433	0.192					
	microcrack		6	1	0.265	0.796
0.332	0.0995					

0.621	porosity	6	8	0.464	0.75
	0.372				
0.347	unmelted particle	6	91	0.441	0.32
	0.105				
Size					
96/10000	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss
640: 100% 4/4 [00:07<00:00, 1.82s/it]					
mAP50	Class	Images	Instances	Box(P	R
mAP50-95): 100%	1/1 [00:00<00:00, 4.48it/s]				
0.784	all	6	100	0.797	0.742
	0.459				
0.995	microcrack	6	1	0.86	1
	0.597				
0.708	porosity	6	8	0.615	0.75
	0.507				
0.649	unmelted particle	6	91	0.916	0.476
	0.273				
Size					
97/10000	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss
640: 100% 4/4 [00:08<00:00, 2.22s/it]					
mAP50	Class	Images	Instances	Box(P	R
mAP50-95): 100%	1/1 [00:00<00:00, 4.61it/s]				
0.449	all	6	100	0.377	0.495
	0.213				
0.00765	microcrack	6	1	0	0
	0.000765				
0.675	porosity	6	8	0.485	0.827
	0.413				
0.666	unmelted particle	6	91	0.645	0.659
	0.226				
Size					
98/10000	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss
640: 100% 4/4 [00:08<00:00, 2.12s/it]					
mAP50	Class	Images	Instances	Box(P	R
mAP50-95): 100%	1/1 [00:00<00:00, 3.03it/s]				
0.783	all	6	100	0.64	0.848
	0.389				
0.995	microcrack	6	1	0.973	1
	0.398				
0.704	porosity	6	8	0.386	0.875
	0.503				
0.65	unmelted particle	6	91	0.561	0.67
	0.266				

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
99/10000	7.83G	1.833	0.7918	0.8764	69
640: 100% 4/4 [00:07<00:00, 1.86s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.21it/s]	Class	Images	Instances	Box(P R
0.439	0.226	all	6	100	0.745 0.411
0	microcrack		6	1	1 0
0	0		6	8	0.489 0.75
0.661	0.433		6	91	0.746 0.484
0.656	unmelted particle		6		
0.246					
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
100/10000	7.83G	1.833	0.87	0.9163	53
640: 100% 4/4 [00:08<00:00, 2.16s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.43it/s]	Class	Images	Instances	Box(P R
0.645	0.344	all	6	100	0.787 0.448
0.497	microcrack		6	1	1 0
0.497	0.249		6	8	0.534 0.75
0.736	porosity		6		
0.736	0.495		6		
0.7	unmelted particle		6	91	0.827 0.593
0.287					
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
101/10000	7.83G	1.795	0.8796	0.8589	34
640: 100% 4/4 [00:08<00:00, 2.08s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 2.94it/s]	Class	Images	Instances	Box(P R
0.747	0.256	all	6	100	0.628 0.459
0.995	microcrack		6	1	1 0
0.995	0.11		6	8	0.323 0.75
0.66	porosity		6		
0.66	0.435		6		
0.587	unmelted particle		6	91	0.562 0.626
0.222					
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
102/10000	7.83G	1.848	0.8922	0.9079	72
640: 100% 4/4 [00:07<00:00, 1.79s/it]					
	Class	Images	Instances	Box(P	R

mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.16it/s]						
		all	6	100	0.479	0.821
0.829	0.476					
	microcrack		6	1	0.501	1
0.995	0.597					
	porosity		6	8	0.338	0.75
0.787	0.515					
	unmelted particle		6	91	0.598	0.714
0.705	0.316					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances						
Size						
103/10000	7.83G	1.793	0.8304	0.8697	99	
640: 100% 4/4 [00:08<00:00, 2.14s/it]						
	Class	Images	Instances	Box(P)	R	
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.54it/s]						
	all	6	100	0.419	0.382	
0.457	0.208					
	microcrack		6	1	0	0
0.166	0.0498					
	porosity		6	8	0.545	0.749
0.668	0.388					
	unmelted particle		6	91	0.712	0.396
0.538	0.188					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances						
Size						
104/10000	7.83G	1.736	0.8681	0.8883	65	
640: 100% 4/4 [00:07<00:00, 1.94s/it]						
	Class	Images	Instances	Box(P)	R	
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 2.96it/s]						
	all	6	100	0.747	0.708	
0.822	0.29					
	microcrack		6	1	0.481	1
0.995	0.107					
	porosity		6	8	0.815	0.75
0.782	0.479					
	unmelted particle		6	91	0.944	0.373
0.69	0.284					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances						
Size						
105/10000	7.83G	1.9	0.8721	0.8795	99	
640: 100% 4/4 [00:07<00:00, 1.95s/it]						
	Class	Images	Instances	Box(P)	R	
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.29it/s]						
	all	6	100	0.792	0.591	
0.74	0.231					
	microcrack		6	1	0.849	1
0.995	0.0995					

		porosity	6	8	0.564	0.5
0.668	0.392	unmelted particle	6	91	0.961	0.274
0.558	0.201					
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
106/10000		7.83G	1.658	0.8485	0.863	71
640:	100%	4/4 [00:08<00:00,	2.20s/it]			
mAP50	mAP50-95):	100% 1/1 [00:00<00:00,	4.41it/s]	Class	Images	Box(P R
		all	6	100	0.779	0.649
0.802	0.345	microcrack	6	1	0.818	1
0.995	0.298	porosity	6	8	0.683	0.5
0.72	0.423	unmelted particle	6	91	0.836	0.448
0.69	0.312					
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
107/10000		7.83G	1.781	0.8707	0.8654	158
640:	100%	4/4 [00:08<00:00,	2.01s/it]			
mAP50	mAP50-95):	100% 1/1 [00:00<00:00,	2.99it/s]	Class	Images	Box(P R
		all	6	100	0.723	0.68
0.8	0.299	microcrack	6	1	0.588	1
0.995	0.199	porosity	6	8	0.738	0.625
0.769	0.452	unmelted particle	6	91	0.843	0.414
0.635	0.245					
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
108/10000		7.83G	1.748	0.8551	0.8795	85
640:	100%	4/4 [00:07<00:00,	1.91s/it]			
mAP50	mAP50-95):	100% 1/1 [00:00<00:00,	3.97it/s]	Class	Images	Box(P R
		all	6	100	0.708	0.763
0.787	0.384	microcrack	6	1	0.867	1
0.995	0.398	porosity	6	8	0.612	0.75
0.726	0.47	unmelted particle	6	91	0.644	0.538
0.64	0.284					

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
109/10000	7.83G	1.811	0.8506	0.8618	50
640: 100% 4/4 [00:09<00:00, 2.26s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.44it/s]	Class	Images	Instances	Box(P R
0.784	all	6	100	0.767	0.693
0.298	microcrack	6	1	0.909	1
0.995	0.149	6	8	0.555	0.625
0.721	porosity	6	91	0.838	0.453
0.491	unmelted particle	6	91	0.842	0.526
0.635	0.254				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
110/10000	7.83G	1.777	0.8218	0.8744	47
640: 100% 4/4 [00:07<00:00, 1.86s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 2.95it/s]	Class	Images	Instances	Box(P R
0.772	all	6	100	0.752	0.717
0.337	microcrack	6	1	0.8	1
0.995	0.365	6	8	0.614	0.625
0.613	porosity	6	91	0.842	0.526
0.35	unmelted particle	6	91	0.842	0.526
0.708	0.295				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
111/10000	7.83G	1.767	0.8249	0.88	80
640: 100% 4/4 [00:08<00:00, 2.03s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.42it/s]	Class	Images	Instances	Box(P R
0.829	all	6	100	0.502	0.815
0.429	microcrack	6	1	0.44	1
0.995	0.398	6	8	0.408	0.75
0.784	porosity	6	91	0.657	0.696
0.592	unmelted particle	6	91	0.657	0.696
0.709	0.296				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
112/10000	7.83G	1.821	0.8198	0.8777	97
640: 100% 4/4 [00:09<00:00, 2.29s/it]					
	Class	Images	Instances	Box(P	R

mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.24it/s]						
		all	6	100	0.58	0.807
0.816	0.366					
	microcrack		6	1	0.73	1
0.995	0.309					
	porosity		6	8	0.367	0.75
0.726	0.489					
	unmelted particle		6	91	0.644	0.67
0.725	0.301					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
113/10000	7.83G	1.673	0.8343	0.8699		63
640: 100% 4/4 [00:08<00:00, 2.18s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 2.64it/s]						
		all	6	100	0.648	0.801
0.769	0.311					
	microcrack		6	1	0.968	1
0.995	0.199					
	porosity		6	8	0.373	0.75
0.677	0.479					
	unmelted particle		6	91	0.604	0.653
0.633	0.257					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
114/10000	7.83G	1.716	0.7739	0.8821		114
640: 100% 4/4 [00:07<00:00, 1.92s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.10it/s]						
		all	6	100	0.576	0.77
0.76	0.365					
	microcrack		6	1	0.793	1
0.995	0.398					
	porosity		6	8	0.337	0.75
0.698	0.469					
	unmelted particle		6	91	0.599	0.56
0.589	0.227					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
115/10000	7.83G	1.744	0.8346	0.8769		82
640: 100% 4/4 [00:09<00:00, 2.35s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.25it/s]						
		all	6	100	0.508	0.781
0.778	0.365					
	microcrack		6	1	0.572	1
0.995	0.365					

		porosity	6	8	0.376	0.75
0.735	0.493	unmelted particle	6	91	0.575	0.593
0.606	0.236					
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
116/10000	7.83G	1.702	0.8521	0.9023	49	
640: 100% 4/4 [00:08<00:00, 2.10s/it]						
mAP50	mAP50-95): 100%	Class	Images	Instances	Box(P	R
0.445	1/1 [00:00<00:00, 2.82it/s]	all	6	100	0.893	0.334
0	0.238	microcrack	6	1	1	0
0.695	0.476	porosity	6	8	0.759	0.625
0.64	0.238	unmelted particle	6	91	0.92	0.378
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
117/10000	7.83G	1.74	0.8584	0.8918	128	
640: 100% 4/4 [00:07<00:00, 1.86s/it]						
mAP50	mAP50-95): 100%	Class	Images	Instances	Box(P	R
0.64	1/1 [00:00<00:00, 4.30it/s]	all	6	100	0.92	0.404
0.497	0.255	microcrack	6	1	1	0
0.78	0.0498	porosity	6	8	0.853	0.729
0.642	0.483	unmelted particle	6	91	0.906	0.484
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
118/10000	7.83G	1.825	0.8769	0.8882	125	
640: 100% 4/4 [00:09<00:00, 2.30s/it]						
mAP50	mAP50-95): 100%	Class	Images	Instances	Box(P	R
0.42	1/1 [00:00<00:00, 4.02it/s]	all	6	100	0.473	0.333
0	0.24	microcrack	6	1	0	0
0.736	0	porosity	6	8	0.669	0.625
0.523	0.496	unmelted particle	6	91	0.75	0.374
0.224						

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
119/10000	7.83G	1.723	0.8636	0.8987	74
640: 100% 4/4 [00:08<00:00, 2.01s/it]					
mAP50	mAP50-95): 100%	Class 1/1 [00:00<00:00, 3.01it/s]	Images Instances	Box(P	R
0.83	0.347	all 6	100	0.614	0.804
0.995	0.199	microcrack 6	1	0.761	1
0.819	0.582	porosity 6	8	0.501	0.75
0.677	0.26	unmelted particle 6	91	0.578	0.662
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
120/10000	7.83G	1.659	0.79	0.8829	54
640: 100% 4/4 [00:07<00:00, 1.79s/it]					
mAP50	mAP50-95): 100%	Class 1/1 [00:00<00:00, 4.52it/s]	Images Instances	Box(P	R
0.759	0.321	all 6	100	0.601	0.748
0.995	0.398	microcrack 6	1	0.77	1
0.676	0.351	porosity 6	8	0.382	0.75
0.606	0.213	unmelted particle 6	91	0.65	0.495
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
121/10000	7.83G	1.729	0.8476	0.8926	131
640: 100% 4/4 [00:08<00:00, 2.17s/it]					
mAP50	mAP50-95): 100%	Class 1/1 [00:00<00:00, 4.36it/s]	Images Instances	Box(P	R
0.755	0.311	all 6	100	0.545	0.86
0.995	0.298	microcrack 6	1	0.722	1
0.622	0.363	porosity 6	8	0.356	0.875
0.648	0.272	unmelted particle 6	91	0.557	0.706
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
122/10000	7.83G	1.671	0.8514	0.9005	61
640: 100% 4/4 [00:08<00:00, 2.04s/it]					
		Class Images Instances		Box(P	R

mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 2.96it/s]						
		all	6	100	0.673	0.503
0.77	0.323	microcrack	6	1	1	0
0.995	0.398	porosity	6	8	0.459	0.849
0.687	0.325	unmelted particle	6	91	0.561	0.659
0.628	0.246					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances						
Size						
123/10000	7.83G	1.578	0.8525	0.8664	50	
640: 100% 4/4 [00:07<00:00, 1.87s/it]						
	Class	Images	Instances	Box(P)	R	
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.48it/s]						
	all	6	100	0.479	0.832	
0.782	0.38	microcrack	6	1	0.492	1
0.995	0.398	porosity	6	8	0.341	0.778
0.642	0.414	unmelted particle	6	91	0.603	0.719
0.71	0.326					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances						
Size						
124/10000	7.83G	1.74	0.8408	0.8833	86	
640: 100% 4/4 [00:08<00:00, 2.15s/it]						
	Class	Images	Instances	Box(P)	R	
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.44it/s]						
	all	6	100	0.705	0.722	
0.712	0.28	microcrack	6	1	0.899	1
0.995	0.298	porosity	6	8	0.537	0.75
0.545	0.327	unmelted particle	6	91	0.677	0.415
0.595	0.214					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances						
Size						
125/10000	7.83G	1.717	0.8216	0.8854	66	
640: 100% 4/4 [00:08<00:00, 2.07s/it]						
	Class	Images	Instances	Box(P)	R	
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 3.17it/s]						
	all	6	100	0.759	0.763	
0.772	0.371	microcrack	6	1	0.904	1
0.995	0.398					

		porosity	6	8	0.533	0.75
0.639	0.428	unmelted particle	6	91	0.841	0.538
0.684	0.287					
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
126/10000		7.83G	1.882	0.8147	0.8692	114
640:	100% 4/4 [00:07<00:00, 1.88s/it]					
mAP50	Class	Images	Instances	Box(P)	R	
mAP50-95): 100%	1/1 [00:00<00:00, 4.38it/s]					
0.761	all	6	100	0.766	0.699	
0.421	microcrack	6	1	0.89	1	
0.995	0.697					
0.573	porosity	6	8	0.575	0.625	
0.32	unmelted particle	6	91	0.834	0.473	
0.715	0.245					
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
127/10000		7.83G	1.749	0.8349	0.8641	56
640:	100% 4/4 [00:09<00:00, 2.31s/it]					
mAP50	Class	Images	Instances	Box(P)	R	
mAP50-95): 100%	1/1 [00:00<00:00, 4.24it/s]					
0.771	all	6	100	0.751	0.675	
0.362	microcrack	6	1	0.896	1	
0.995	0.398					
0.585	porosity	6	8	0.484	0.5	
0.403	unmelted particle	6	91	0.872	0.524	
0.733	0.285					
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
128/10000		7.83G	1.686	0.8416	0.8622	51
640:	100% 4/4 [00:08<00:00, 2.01s/it]					
mAP50	Class	Images	Instances	Box(P)	R	
mAP50-95): 100%	1/1 [00:00<00:00, 2.96it/s]					
0.717	all	6	100	0.64	0.632	
0.315	microcrack	6	1	0.521	1	
0.995	0.398					
0.569	porosity	6	8	0.612	0.5	
0.333	unmelted particle	6	91	0.787	0.396	
0.586	0.214					

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
129/10000	7.83G	1.809	0.8866	0.8799	79
640: 100% 4/4 [00:07<00:00, 1.97s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.22it/s]	Class	Images	Instances	Box(P R
0.532	all	6	100	0.588	0.632
0.259	microcrack	6	1	0.279	1
0.332	0.119	6	8	0.57	0.5
0.547	porosity	6	91	0.913	0.396
0.344	unmelted particle	6	91	0.913	0.396
0.717	0.312				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
130/10000	7.83G	1.712	0.8027	0.8454	140
640: 100% 4/4 [00:08<00:00, 2.24s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.19it/s]	Class	Images	Instances	Box(P R
0.533	all	6	100	0.63	0.572
0.211	microcrack	6	1	0.312	1
0.497	0.166	6	8	0.736	0.354
0.48	porosity	6	91	0.841	0.363
0.274	unmelted particle	6	91	0.841	0.363
0.621	0.195				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
131/10000	7.83G	1.78	0.8609	0.8611	109
640: 100% 4/4 [00:07<00:00, 1.94s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 2.60it/s]	Class	Images	Instances	Box(P R
0.756	all	6	100	0.775	0.717
0.429	microcrack	6	1	0.883	1
0.995	0.597	6	8	0.555	0.625
0.561	porosity	6	91	0.889	0.526
0.378	unmelted particle	6	91	0.889	0.526
0.711	0.312				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
132/10000	7.83G	1.756	0.8074	0.891	73
640: 100% 4/4 [00:07<00:00, 1.96s/it]					
	Class	Images	Instances	Box(P	R

mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.29it/s]						
		all	6	100	0.708	0.692
0.721	0.275					
	microcrack		6	1	0.884	1
0.995	0.303					
	porosity		6	8	0.512	0.625
0.579	0.324					
	unmelted particle		6	91	0.729	0.451
0.589	0.199					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
133/10000	7.83G	1.933	0.8864	0.8674	153	
640: 100% 4/4 [00:09<00:00, 2.27s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.25it/s]						
		all	6	100	0.668	0.717
0.772	0.413					
	microcrack		6	1	0.848	1
0.995	0.497					
	porosity		6	8	0.406	0.625
0.631	0.426					
	unmelted particle		6	91	0.752	0.527
0.689	0.314					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
134/10000	7.83G	1.657	0.7835	0.8745	69	
640: 100% 4/4 [00:08<00:00, 2.07s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 3.00it/s]						
		all	6	100	0.615	0.654
0.758	0.318					
	microcrack		6	1	0.333	1
0.995	0.298					
	porosity		6	8	0.511	0.625
0.616	0.403					
	unmelted particle		6	91	1	0.338
0.664	0.252					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
135/10000	7.83G	1.696	0.8378	0.8774	52	
640: 100% 4/4 [00:07<00:00, 1.97s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.32it/s]						
		all	6	100	0.687	0.424
0.776	0.413					
	microcrack		6	1	1	0
0.995	0.497					

		porosity	6	8	0.39	0.625
0.62	0.433	unmelted particle	6	91	0.67	0.648
0.711	0.309					
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
136/10000		7.83G	1.671	0.7662	0.8677	106
640:	100% 4/4 [00:09<00:00, 2.25s/it]					
mAP50	mAP50-95):	Class	Images	Instances	Box(P	R
0.526	100%	1/1 [00:00<00:00, 4.52it/s]	all	6	100	0.48
0.239						0.654
0.332	0.0995	microcrack	6	1	0.281	0.842
0.599	0.385	porosity	6	8	0.411	0.625
0.647	0.233	unmelted particle	6	91	0.748	0.495
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
137/10000		7.83G	1.562	0.7132	0.8699	74
640:	100% 4/4 [00:07<00:00, 1.90s/it]					
mAP50	mAP50-95):	Class	Images	Instances	Box(P	R
0.788	100%	1/1 [00:00<00:00, 3.05it/s]	all	6	100	0.663
0.397						0.739
0.995	0.398	microcrack	6	1	0.82	1
0.711	0.5	porosity	6	8	0.459	0.625
0.656	0.291	unmelted particle	6	91	0.711	0.593
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
138/10000		7.83G	1.678	0.7819	0.8844	45
640:	100% 4/4 [00:07<00:00, 1.96s/it]					
mAP50	mAP50-95):	Class	Images	Instances	Box(P	R
0.768	100%	1/1 [00:00<00:00, 4.32it/s]	all	6	100	0.659
0.36						0.707
0.995	0.298	microcrack	6	1	0.902	1
0.693	0.516	porosity	6	8	0.471	0.625
0.616	0.265	unmelted particle	6	91	0.604	0.495

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
139/10000	7.83G	1.676	0.788	0.8746	106
640: 100% 4/4 [00:08<00:00, 2.17s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.40it/s]	Class	Images	Instances	Box(P R
0.813	all	6	100	0.688	0.741
0.372	microcrack	6	1	0.984	1
0.995	0.298	6	8	0.461	0.642
0.799	porosity	6	91	0.619	0.582
0.645	0.543 unmelted particle	6	1	0.64	0.582
0.275					
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
140/10000	7.83G	1.811	0.8425	0.8836	100
640: 100% 4/4 [00:07<00:00, 1.84s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 3.00it/s]	Class	Images	Instances	Box(P R
0.797	all	6	100	0.687	0.407
0.376	microcrack	6	1	1	0
0.995	0.398	6	8	0.421	0.637
0.751	porosity	6	91	0.64	0.582
0.644	0.457 unmelted particle	6	1	0.64	0.582
0.273					
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
141/10000	7.83G	1.635	0.7744	0.8757	88
640: 100% 4/4 [00:07<00:00, 1.94s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.58it/s]	Class	Images	Instances	Box(P R
0.767	all	6	100	0.449	0.728
0.329	microcrack	6	1	0.382	1
0.995	0.298	6	8	0.365	0.625
0.667	porosity	6	91	0.601	0.56
0.639	0.398 unmelted particle	6	1	0.601	0.56
0.29					
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
142/10000	7.83G	1.75	0.8046	0.8725	78
640: 100% 4/4 [00:08<00:00, 2.17s/it]					
	Class	Images	Instances	Box(P	R

mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.33it/s]						
		all	6	100	0.696	0.439
0.531	0.256					
	microcrack		6	1	1	0
0.249	0.0498					
	porosity		6	8	0.394	0.625
0.618	0.404					
	unmelted particle		6	91	0.694	0.692
0.725	0.314					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
143/10000	7.83G	1.741	0.7503	0.8647	61	
640: 100% 4/4 [00:07<00:00, 1.78s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.54it/s]						
		all	6	100	0.777	0.339
0.438	0.196					
	microcrack		6	1	1	0
0.0622	0.0152					
	porosity		6	8	0.679	0.5
0.616	0.299					
	unmelted particle		6	91	0.653	0.516
0.635	0.273					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
144/10000	7.83G	1.677	0.7966	0.8655	77	
640: 100% 4/4 [00:08<00:00, 2.22s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.31it/s]						
		all	6	100	0.559	0.673
0.74	0.312					
	microcrack		6	1	0.328	1
0.995	0.348					
	porosity		6	8	0.664	0.375
0.535	0.301					
	unmelted particle		6	91	0.685	0.645
0.69	0.286					
Epoch GPU_mem box_loss cls_loss dfl_loss Instances Size						
145/10000	7.83G	1.574	0.7948	0.8696	47	
640: 100% 4/4 [00:09<00:00, 2.28s/it]						
Class Images Instances Box(P R						
mAP50 mAP50-95): 100% 1/1 [00:00<00:00, 4.41it/s]						
		all	6	100	0.673	0.636
0.711	0.242					
	microcrack		6	1	0.813	1
0.995	0.199					

		porosity	6	8	0.571	0.339
0.464	0.236	unmelted particle	6	91	0.633	0.569
0.675	0.29					
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
146/10000	7.83G	1.7	0.7547	0.8892	77	
640: 100% 4/4 [00:07<00:00, 1.78s/it]						
mAP50	mAP50-95): 100%	Class	Images	Instances	Box(P	R
0.725	1/1 [00:00<00:00, 4.25it/s]	all	6	100	0.555	0.684
0.995	0.284	microcrack	6	1	0.69	1
0.545	0.298	porosity	6	8	0.409	0.436
0.635	0.301	unmelted particle	6	91	0.567	0.615
0.684	0.254					
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
147/10000	7.83G	1.581	0.7379	0.8728	59	
640: 100% 4/4 [00:08<00:00, 2.22s/it]						
mAP50	mAP50-95): 100%	Class	Images	Instances	Box(P	R
0.723	1/1 [00:00<00:00, 4.69it/s]	all	6	100	0.56	0.649
0.995	0.253	microcrack	6	1	0.501	1
0.489	0.228	porosity	6	8	0.538	0.298
0.684	0.248	unmelted particle	6	91	0.639	0.648
0.629	0.285					
Size	Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
148/10000	7.83G	1.642	0.7868	0.8792	44	
640: 100% 4/4 [00:08<00:00, 2.16s/it]						
mAP50	mAP50-95): 100%	Class	Images	Instances	Box(P	R
0.696	1/1 [00:00<00:00, 4.43it/s]	all	6	100	0.658	0.59
0.995	0.27	microcrack	6	1	0.843	1
0.463	0.298	porosity	6	8	0.458	0.25
0.629	0.257	unmelted particle	6	91	0.673	0.52
0.629	0.255					

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
149/10000	7.83G	1.583	0.7848	0.8766	60
640: 100% 4/4 [00:07<00:00, 1.85s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.59it/s]	Class all	Images 6	Instances 100	Box(P 0.718 R 0.615
0.755	0.231	microcrack	6	1	0.86 1
0.995	0.0995	porosity	6	8	0.536 0.295
0.603	0.309	unmelted particle	6	91	0.758 0.551
0.666	0.285				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
150/10000	7.83G	1.758	0.7899	0.8772	39
640: 100% 4/4 [00:08<00:00, 2.17s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 4.44it/s]	Class all	Images 6	Instances 100	Box(P 0.664 R 0.685
0.749	0.294	microcrack	6	1	0.821 1
0.995	0.298	porosity	6	8	0.42 0.375
0.536	0.294	unmelted particle	6	91	0.751 0.681
0.716	0.291				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
151/10000	7.83G	1.666	0.7685	0.8516	75
640: 100% 4/4 [00:08<00:00, 2.09s/it]					
mAP50	mAP50-95): 100% 1/1 [00:00<00:00, 2.73it/s]	Class all	Images 6	Instances 100	Box(P 0.426 R 0.406
0.447	0.224	microcrack	6	1	0 0
0	0	porosity	6	8	0.606 0.581
0.638	0.384	unmelted particle	6	91	0.671 0.637
0.704	0.288				
Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances
Size					
152/10000	7.83G	1.646	0.7371	0.874	63
640: 100% 4/4 [00:07<00:00, 1.91s/it]					
		Class	Images	Instances	Box(P R)

```

mAP50  mAP50-95): 100% 1/1 [00:00<00:00,  4.31it/s]
          all      6     100    0.793    0.769
0.805    0.314
          microcrack   6      1    0.84      1
0.995    0.199
          porosity     6      8    0.822    0.625
0.692    0.429
          unmelted particle   6     91    0.717    0.681
0.729    0.314
Stopping training early as no improvement observed in last 50 epochs.
Best results observed at epoch 102, best model saved as best.pt.
To update EarlyStopping(patience=50) pass a new patience value, i.e.
`patience=300` or use `patience=0` to disable EarlyStopping.

152 epochs completed in 0.387 hours.
Optimizer stripped from runs/detect/train/weights/last.pt, 22.5MB
Optimizer stripped from runs/detect/train/weights/best.pt, 22.5MB

Validating runs/detect/train/weights/best.pt...
Ultralytics YOLOv8.0.20 🚀 Python-3.10.6 torch-2.0.1+cu118 CUDA:0
(Tesla V100-SXM2-16GB, 16151MiB)
Model summary (fused): 168 layers, 11126745 parameters, 0 gradients,
28.4 GFLOPs
          Class      Images Instances      Box(P      R
mAP50  mAP50-95): 100% 1/1 [00:00<00:00,  4.68it/s]
          all      6     100    0.479    0.821
0.823    0.474
          microcrack   6      1    0.501      1
0.995    0.597
          porosity     6      8    0.337    0.75
0.768    0.508
          unmelted particle   6     91    0.598    0.714
0.705    0.316
Speed: 0.2ms pre-process, 2.3ms inference, 0.0ms loss, 1.1ms post-
process per image
Results saved to runs/detect/train

!ls

data.yaml      README.roboflow.txt  test      yolov8s.pt
README.dataset.txt  runs           train

model = YOLO('/content/yolov8-1/runs/detect/train/weights/best.pt')

from ultralytics import YOLO
from PIL import Image
import cv2

# from PIL
img =
Image.open("/content/yolov8-1/test/images/rsz_slm_square_finalx15k_003

```

```
5.jpg.rf.e5c332015d1f1a4bd24149f60d603f7c.jpg")
results = model.predict(source=img, save=True)

Ultralytics YOLOv8.0.20 🚀 Python-3.10.6 torch-2.0.1+cu118 CUDA:0
(Tesla V100-SXM2-16GB, 16151MiB)
Model summary (fused): 168 layers, 11126745 parameters, 0 gradients,
28.4 GFLOPs
Results saved to runs/detect/predict

# print(results)
display(Image.open('/content/yolov8-1/runs/detect/predict/image0.jpg')
)
```

porosity 0.71

unmelted partic

unmelted particle 0.29

unmelted partic

unmelted particle 0.53

unmelted particle 0.67 article 0.3

unmelted particle 0.68

unmelted partic

unmelted particle 0.84 unme

unmelted particle 0.69

unmelted particle 0.83

15kV 7.0mm L-X1.50k BSE H

100 μ m