

Maskrcnn_binary_class1 (1)

December 31, 2019

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

Go to this URL in a browser: https://accounts.google.com/o/oauth2/auth?client_id=947318989803-6bn6qk8qdgf4n4g3pfee6491hc0brc4i.apps.googleusercontent.com&redirect_uri=urn%3aietf%3awg%3aoauth%3a2.0%3aoob&response_type=code&scope=email%20https%3a%2f%2fwww.googleapis.com%2fauth%2fdocs.test%20https%3a%2f%2fwww.googleapis.com%2fauth%2fdrive.photos.readonly%20https%3a%2f%2fwww.googleapis.com%2fauth%2fpeopleapi.readonly

Enter your authorization code:

.....

Mounted at /content/drive

```
[0]: import os  
import sys  
import json  
import numpy as np  
import time  
from PIL import Image, ImageDraw  
import tensorflow.compat.v1 as tf  
tf.disable_v2_behavior()
```

```
[7]: # Set the ROOT_DIR variable to the root directory of the Mask_RCNN git repo  
ROOT_DIR = '/content/drive/My Drive/'  
assert os.path.exists(ROOT_DIR), 'ROOT_DIR does not exist. Did you forget to  
→read the instructions above? ;)'  
  
# Import mrcnn libraries  
sys.path.append(ROOT_DIR)  
from mrcnn.config import Config  
import mrcnn.utils as utils  
from mrcnn import visualize  
import mrcnn.model as modellib
```

Using TensorFlow backend.

```
[0]: # Directory to save logs and trained model
MODEL_DIR = os.path.join(ROOT_DIR, "binlogs")

# Local path to trained weights file
# COCO_MODEL_PATH = os.path.join(ROOT_DIR, "mask_rcnn_cig_butts_0008.h5")

COCO_MODEL_PATH = os.path.join(ROOT_DIR, "mask_rcnn_coco.h5")
# Download COCO trained weights from Releases if needed
if not os.path.exists(COCO_MODEL_PATH):
    utils.download_trained_weights(COCO_MODEL_PATH)
```

```
[9]: print(MODEL_DIR)
print(COCO_MODEL_PATH)
```

/content/drive/My Drive/binlogs
 /content/drive/My Drive/mask_rcnn_coco.h5

```
[13]: class Cervic_binary_classConfig(Config):
    """Configuration for training on the cigarette butts dataset.
    Derives from the base Config class and overrides values specific
    to the cigarette butts dataset.
    """
    # Give the configuration a recognizable name
    NAME = "Cervic_binary_class_one"

    # Train on 1 GPU and 1 image per GPU. Batch size is 1 (GPUs * images/
    # per GPU).
    GPU_COUNT = 1
    IMAGES_PER_GPU = 1

    # Number of classes (including background)
    NUM_CLASSES = 1 + 2  # background + 1 (cigarette butts)

    # All of our training images are 512x512
    IMAGE_MIN_DIM = 512
    IMAGE_MAX_DIM = 512

    # You can experiment with this number to see if it improves training
    STEPS_PER_EPOCH = 500
    LEARNING_RATE = 5e-4
    # This is how often validation is run. If you are using too much hard drive
    # space
    # on saved models (in the MODEL_DIR), try making this value larger.
    VALIDATION_STEPS = 5
```

```

# Matterport originally used resnet101, but I downsized to fit it on my
→graphics card
BACKBONE = 'resnet50'

# To be honest, I haven't taken the time to figure out what these do
RPN_ANCHOR_SCALES = (8, 16, 32, 64, 128)
TRAIN_ROIS_PER_IMAGE = 32
MAX_GT_INSTANCES = 50
POST_NMS_ROIS_INFERENCE = 500
POST_NMS_ROIS_TRAINING = 1000

config = Cervic_binary_classConfig()
config.display()

```

Configurations:

BACKBONE	resnet50
BACKBONE_STRIDES	[4, 8, 16, 32, 64]
BATCH_SIZE	1
BBOX_STD_DEV	[0.1 0.1 0.2 0.2]
COMPUTE_BACKBONE_SHAPE	None
DETECTION_MAX_INSTANCES	100
DETECTION_MIN_CONFIDENCE	0.7
DETECTION_NMS_THRESHOLD	0.3
FPN_CLASSIF_FC_LAYERS_SIZE	1024
GPU_COUNT	1
GRADIENT_CLIP_NORM	5.0
IMAGES_PER_GPU	1
IMAGE_CHANNEL_COUNT	3
IMAGE_MAX_DIM	512
IMAGE_META_SIZE	15
IMAGE_MIN_DIM	512
IMAGE_MIN_SCALE	0
IMAGE_RESIZE_MODE	square
IMAGE_SHAPE	[512 512 3]
LEARNING_MOMENTUM	0.9
LEARNING_RATE	0.0005
LOSS_WEIGHTS	{'rpn_class_loss': 1.0, 'rpn_bbox_loss': 1.0, 'mrcnn_class_loss': 1.0, 'mrcnn_bbox_loss': 1.0, 'mrcnn_mask_loss': 1.0}
MASK_POOL_SIZE	14
MASK_SHAPE	[28, 28]
MAX_GT_INSTANCES	50
MEAN_PIXEL	[123.7 116.8 103.9]
MINI_MASK_SHAPE	(56, 56)
NAME	Cervic_binary_class_one
NUM_CLASSES	3
POOL_SIZE	7

POST_NMS_ROIS_INFERENCE	500
POST_NMS_ROIS_TRAINING	1000
PRE_NMS_LIMIT	6000
ROI_POSITIVE_RATIO	0.33
RPN_ANCHOR RATIOS	[0.5, 1, 2]
RPN_ANCHOR_SCALES	(8, 16, 32, 64, 128)
RPN_ANCHOR_STRIDE	1
RPN_BBOX_STD_DEV	[0.1 0.1 0.2 0.2]
RPN_NMS_THRESHOLD	0.7
RPN_TRAIN_ANCHORS_PER_IMAGE	256
STEPS_PER_EPOCH	500
TOP_DOWN_PYRAMID_SIZE	256
TRAIN_BN	False
TRAIN_ROIS_PER_IMAGE	32
USE_MINI_MASK	True
USE_RPN_ROIS	True
VALIDATION_STEPS	5
WEIGHT_DECAY	0.0001

```
[0]: class CocoLikeDataset(utils.Dataset):
    """ Generates a COCO-like dataset, i.e. an image dataset annotated in the
    ↪style of the COCO dataset.

    See http://cocodataset.org/#home for more information.
    """
    def load_data(self, annotation_json, images_dir):
        """ Load the coco-like dataset from json
        Args:
            annotation_json: The path to the coco annotations json file
            images_dir: The directory holding the images referred to by the
        ↪json file
        """
        # Load json from file
        json_file = open(annotation_json)
        coco_json = json.load(json_file)
        json_file.close()

        # Add the class names using the base method from utils.Dataset
        source_name = "coco_like"
        for category in coco_json['categories']:
            class_id = category['category_id']
            # class_id = 4
            class_name = category['name']
            # class_name = 'Severe_dysplastic'
            if class_id < 1:
```

```

        print('Error: Class id for "{}" cannot be less than one. (0 is reserved for the background)'.format(class_name))
        return

    self.add_class(source_name, class_id, class_name)

    # Get all annotations
    annotations = {}
    for annotation in coco_json['annotations']:
        image_id = annotation['image_id']
        if image_id not in annotations:
            annotations[image_id] = []
        annotations[image_id].append(annotation)

    # Get all images and add them to the dataset
    seen_images = {}
    for image in coco_json['images']:
        image_id = image['id']
        if image_id in seen_images:
            print("Warning: Skipping duplicate image id: {}".format(image))
        else:
            seen_images[image_id] = image
            try:
                image_file_name = image['filename']
                image_width = image['width']
                image_height = image['height']
            except KeyError as key:
                print("Warning: Skipping image (id: {}) with missing key: {}".format(image_id, key))

            image_path = os.path.abspath(os.path.join(images_dir, image_file_name))
            image_annotations = annotations[image_id]

            # Add the image using the base method from utils.Dataset
            self.add_image(
                source=source_name,
                image_id=image_id,
                path=image_path,
                width=image_width,
                height=image_height,
                annotations=image_annotations
            )

    def load_mask(self, image_id):
        """ Load instance masks for the given image.

```

MaskRCNN expects masks in the form of a bitmap [height, width, ↵instances].

Args:

image_id: The id of the image to load masks for

Returns:

masks: A bool array of shape [height, width, instance count] with one mask per instance.

class_ids: a 1D array of class IDs of the instance masks.

"""

```

image_info = self.image_info[image_id]
annotations = image_info['annotations']
instance_masks = []
class_ids = []

for annotation in annotations:
    class_id = annotation['category_id']
    mask = Image.new('1', (image_info['width'], image_info['height']))
    mask_draw = ImageDraw.ImageDraw(mask, '1')
    for segmentation in annotation['segmentation']:
        mask_draw.polygon(segmentation, fill=1)
        bool_array = np.array(mask) > 0
        instance_masks.append(bool_array)
        class_ids.append(class_id)

mask = np.dstack(instance_masks)
class_ids = np.array(class_ids, dtype=np.int32)

return mask, class_ids

```

[0]:

```

dataset_train = CocoLikeDataset()
dataset_train.load_data('/content/drive/My Drive/bin_cervic_train/
˓→cervic_binary_class_train1.json', '/content/drive/My Drive/')
dataset_train.prepare()

dataset_val = CocoLikeDataset()
dataset_val.load_data('/content/drive/My Drive/bin_cervic_validation/
˓→cervic_binary_class_validation1.json', '/content/drive/My Drive/')
dataset_val.prepare()

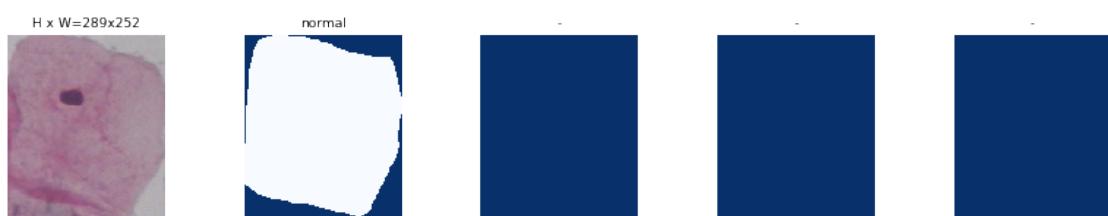
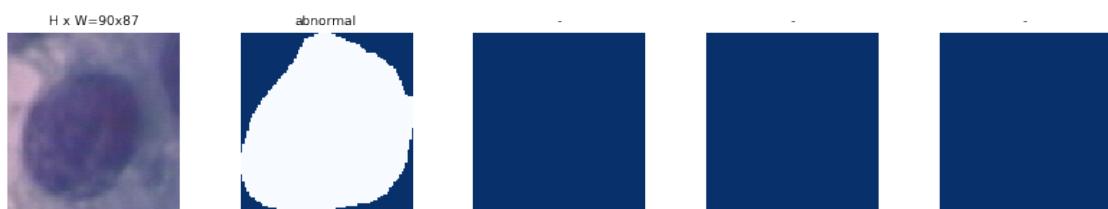
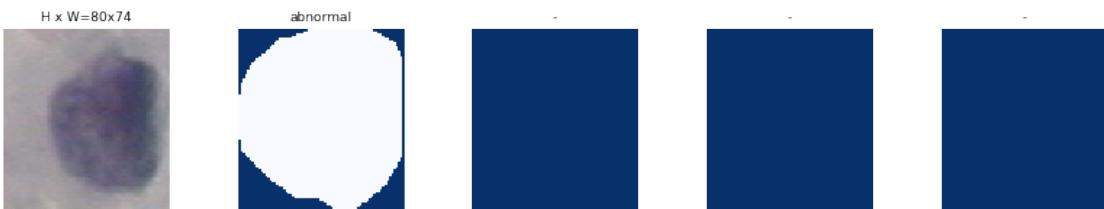
```

[16]:

```

dataset = dataset_train
image_ids = np.random.choice(dataset.image_ids, 6)
for image_id in image_ids:
    image = dataset.load_image(image_id)
    mask, class_ids = dataset.load_mask(image_id)
    visualize.display_top_masks(image, mask, class_ids, dataset.class_names)

```





```
[10]: # Create model in training mode
model = modellib.MaskRCNN(mode="training", config=config,
                           model_dir=MODEL_DIR)
```

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-packages/keras/backend/tensorflow_backend.py:541: The name tf.placeholder is deprecated. Please use tf.compat.v1.placeholder instead.

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-packages/keras/backend/tensorflow_backend.py:66: The name tf.get_default_graph is deprecated. Please use tf.compat.v1.get_default_graph instead.

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-packages/keras/backend/tensorflow_backend.py:4432: The name tf.random_uniform is deprecated. Please use tf.random.uniform instead.

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-packages/keras/backend/tensorflow_backend.py:2139: The name tf.nn.fused_batch_norm is deprecated. Please use tf.compat.v1.nn.fused_batch_norm instead.

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-packages/keras/backend/tensorflow_backend.py:4267: The name tf.nn.max_pool is deprecated. Please use tf.nn.max_pool2d instead.

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-packages/keras/backend/tensorflow_backend.py:2239: The name tf.image.resize_nearest_neighbor is deprecated. Please use tf.compat.v1.image.resize_nearest_neighbor instead.

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-packages/tensorflow_core/python/ops/array_ops.py:1475: where (from tensorflow.python.ops.array_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use `tf.where` in 2.0, which has the same broadcast rule as `np.where`

WARNING:tensorflow:From /content/drive/My Drive/mrcnn/model.py:553: The name `tf.random_shuffle` is deprecated. Please use `tf.random.shuffle` instead.

```
WARNING:tensorflow:From /content/drive/My Drive/mrcnn/utils.py:202: The name tf.log is deprecated. Please use tf.math.log instead.
```

```
WARNING:tensorflow:From /content/drive/My Drive/mrcnn/model.py:600: calling crop_and_resize_v1 (from tensorflow.python.ops.image_ops_impl) with box_ind is deprecated and will be removed in a future version.
```

Instructions for updating:

box_ind is deprecated, use box_indices instead

```
[11]: # Which weights to start with?
# init_with = "coco" # imagenet, coco, or last
init_with = "imagenet"
if init_with == "imagenet":
    model.load_weights(model.get_imagenet_weights(), by_name=True)
elif init_with == "coco":
    # Load weights trained on MS COCO, but skip layers that
    # are different due to the different number of classes
    # See README for instructions to download the COCO weights
    model.load_weights(COCO_MODEL_PATH, by_name=True,
                        exclude=["mrcnn_class_logits", "mrcnn_bbox_fc",
                                "mrcnn_bbox", "mrcnn_mask"])
elif init_with == "last":
    # Load the last model you trained and continue training
    model.load_weights(model.find_last(), by_name=True)
```

```
Downloading data from https://github.com/fchollet/deep-learning-models/releases/
download/v0.2/resnet50_weights_tf_dim_ordering_tf_kernels_notop.h5
94658560/94653016 [=====] - 7s 0us/step
WARNING:tensorflow:From /usr/local/lib/python3.6/dist-
packages/keras/backend/tensorflow_backend.py:190: The name
tf.get_default_session is deprecated. Please use
tf.compat.v1.get_default_session instead.
```

```
WARNING:tensorflow:From /usr/local/lib/python3.6/dist-
packages/keras/backend/tensorflow_backend.py:197: The name tf.ConfigProto is
deprecated. Please use tf.compat.v1.ConfigProto instead.
```

```
WARNING:tensorflow:From /usr/local/lib/python3.6/dist-
packages/keras/backend/tensorflow_backend.py:203: The name tf.Session is
deprecated. Please use tf.compat.v1.Session instead.
```

```
WARNING:tensorflow:From /usr/local/lib/python3.6/dist-
packages/keras/backend/tensorflow_backend.py:207: The name tf.global_variables
is deprecated. Please use tf.compat.v1.global_variables instead.
```

```
WARNING:tensorflow:From /usr/local/lib/python3.6/dist-
packages/keras/backend/tensorflow_backend.py:216: The name
```

```
tf.is_variable_initialized is deprecated. Please use  
tf.compat.v1.is_variable_initialized instead.
```

```
WARNING:tensorflow:From /usr/local/lib/python3.6/dist-  
packages/keras/backend/tensorflow_backend.py:223: The name  
tf.variables_initializer is deprecated. Please use  
tf.compat.v1.variables_initializer instead.
```

```
[12]: # Train the head branches  
# Passing layers="heads" freezes all layers except the head  
# layers. You can also pass a regular expression to select  
# which layers to train by name pattern.  
start_train = time.time()  
model.train(dataset_train, dataset_val,  
            learning_rate=config.LEARNING_RATE,  
            epochs=20,  
            layers='heads')  
end_train = time.time()  
minutes = round((end_train - start_train) / 60, 2)  
print(f'Training took {minutes} minutes')
```

Starting at epoch 0. LR=0.0005

```
Checkpoint Path: /content/drive/My Drive/binlogs/cervic_binary_class_one20191231  
T0819/mask_rcnn_cervic_binary_class_one_{epoch:04d}.h5  
Selecting layers to train  
fpn_c5p5          (Conv2D)  
fpn_c4p4          (Conv2D)  
fpn_c3p3          (Conv2D)  
fpn_c2p2          (Conv2D)  
fpn_p5            (Conv2D)  
fpn_p2            (Conv2D)  
fpn_p3            (Conv2D)  
fpn_p4            (Conv2D)  
In model: rpn_model  
    rpn_conv_shared      (Conv2D)  
    rpn_class_raw        (Conv2D)  
    rpn_bbox_pred        (Conv2D)  
mrcnn_mask_conv1   (TimeDistributed)  
mrcnn_mask_bn1     (TimeDistributed)  
mrcnn_mask_conv2   (TimeDistributed)  
mrcnn_mask_bn2     (TimeDistributed)  
mrcnn_class_conv1  (TimeDistributed)  
mrcnn_class_bn1    (TimeDistributed)  
mrcnn_mask_conv3   (TimeDistributed)  
mrcnn_mask_bn3     (TimeDistributed)
```

```

mrcnn_class_conv2      (TimeDistributed)
mrcnn_class_bn2       (TimeDistributed)
mrcnn_mask_conv4      (TimeDistributed)
mrcnn_mask_bn4        (TimeDistributed)
mrcnn_bbox_fc         (TimeDistributed)
mrcnn_mask_deconv     (TimeDistributed)
mrcnn_class_logits    (TimeDistributed)
mrcnn_mask            (TimeDistributed)
WARNING:tensorflow:From /usr/local/lib/python3.6/dist-
packages/keras/optimizers.py:793: The name tf.train.Optimizer is deprecated.
Please use tf.compat.v1.train.Optimizer instead.

/usr/local/lib/python3.6/dist-
packages/tensorflow_core/python/framework/indexed_slices.py:424: UserWarning:
Converting sparse IndexedSlices to a dense Tensor of unknown shape. This may
consume a large amount of memory.
    "Converting sparse IndexedSlices to a dense Tensor of unknown shape. "
/usr/local/lib/python3.6/dist-
packages/tensorflow_core/python/framework/indexed_slices.py:424: UserWarning:
Converting sparse IndexedSlices to a dense Tensor of unknown shape. This may
consume a large amount of memory.
    "Converting sparse IndexedSlices to a dense Tensor of unknown shape. "
/usr/local/lib/python3.6/dist-
packages/tensorflow_core/python/framework/indexed_slices.py:424: UserWarning:
Converting sparse IndexedSlices to a dense Tensor of unknown shape. This may
consume a large amount of memory.
    "Converting sparse IndexedSlices to a dense Tensor of unknown shape. "
WARNING:tensorflow:From /usr/local/lib/python3.6/dist-
packages/keras/backend/tensorflow_backend.py:1033: The name tf.assign_add is
deprecated. Please use tf.compat.v1.assign_add instead.

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-
packages/keras/backend/tensorflow_backend.py:1020: The name tf.assign is
deprecated. Please use tf.compat.v1.assign instead.

/usr/local/lib/python3.6/dist-packages/keras/engine/training_generator.py:49:
UserWarning: Using a generator with `use_multiprocessing=True` and multiple
workers may duplicate your data. Please consider using the `keras.utils.Sequence
class.
    UserWarning('Using a generator with `use_multiprocessing=True`')

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-
packages/keras/callbacks.py:1122: The name tf.summary.merge_all is deprecated.
Please use tf.compat.v1.summary.merge_all instead.

WARNING:tensorflow:From /usr/local/lib/python3.6/dist-
packages/keras/callbacks.py:1125: The name tf.summary.FileWriter is deprecated.

```

Please use `tf.compat.v1.summary.FileWriter` instead.

Epoch 1/20

```
500/500 [=====] - 142s 284ms/step - loss: 3.2554 -  
rpn_class_loss: 0.0599 - rpn_bbox_loss: 2.1439 - mrcnn_class_loss: 0.2252 -  
mrcnn_bbox_loss: 0.3204 - mrcnn_mask_loss: 0.5060 - val_loss: 1.9878 -  
val_rpn_class_loss: 0.0398 - val_rpn_bbox_loss: 0.9463 - val_mrcnn_class_loss:  
0.1720 - val_mrcnn_bbox_loss: 0.1465 - val_mrcnn_mask_loss: 0.6831  
WARNING:tensorflow:From /usr/local/lib/python3.6/dist-  
packages/keras/callbacks.py:1265: The name tf.Summary is deprecated. Please use  
tf.compat.v1.Summary instead.
```

Epoch 2/20

```
500/500 [=====] - 112s 225ms/step - loss: 1.9094 -  
rpn_class_loss: 0.0228 - rpn_bbox_loss: 1.1368 - mrcnn_class_loss: 0.1412 -  
mrcnn_bbox_loss: 0.1847 - mrcnn_mask_loss: 0.4239 - val_loss: 1.6520 -  
val_rpn_class_loss: 0.0236 - val_rpn_bbox_loss: 0.8028 - val_mrcnn_class_loss:  
0.1536 - val_mrcnn_bbox_loss: 0.1299 - val_mrcnn_mask_loss: 0.5420
```

Epoch 3/20

```
500/500 [=====] - 104s 208ms/step - loss: 1.4867 -  
rpn_class_loss: 0.0171 - rpn_bbox_loss: 0.7966 - mrcnn_class_loss: 0.1443 -  
mrcnn_bbox_loss: 0.1317 - mrcnn_mask_loss: 0.3970 - val_loss: 1.7097 -  
val_rpn_class_loss: 0.0203 - val_rpn_bbox_loss: 1.0592 - val_mrcnn_class_loss:  
0.0326 - val_mrcnn_bbox_loss: 0.2335 - val_mrcnn_mask_loss: 0.3641
```

Epoch 4/20

```
500/500 [=====] - 65s 130ms/step - loss: 1.2568 -  
rpn_class_loss: 0.0148 - rpn_bbox_loss: 0.6494 - mrcnn_class_loss: 0.1177 -  
mrcnn_bbox_loss: 0.0974 - mrcnn_mask_loss: 0.3775 - val_loss: 1.2272 -  
val_rpn_class_loss: 0.0104 - val_rpn_bbox_loss: 0.7594 - val_mrcnn_class_loss:  
0.0595 - val_mrcnn_bbox_loss: 0.0678 - val_mrcnn_mask_loss: 0.3302
```

Epoch 5/20

```
500/500 [=====] - 65s 129ms/step - loss: 1.1825 -  
rpn_class_loss: 0.0140 - rpn_bbox_loss: 0.6478 - mrcnn_class_loss: 0.0808 -  
mrcnn_bbox_loss: 0.0845 - mrcnn_mask_loss: 0.3553 - val_loss: 1.3991 -  
val_rpn_class_loss: 0.0121 - val_rpn_bbox_loss: 0.8164 - val_mrcnn_class_loss:  
0.0782 - val_mrcnn_bbox_loss: 0.1507 - val_mrcnn_mask_loss: 0.3417
```

Epoch 6/20

```
500/500 [=====] - 64s 127ms/step - loss: 0.9838 -  
rpn_class_loss: 0.0134 - rpn_bbox_loss: 0.4658 - mrcnn_class_loss: 0.0967 -  
mrcnn_bbox_loss: 0.0730 - mrcnn_mask_loss: 0.3349 - val_loss: 1.2241 -  
val_rpn_class_loss: 0.0127 - val_rpn_bbox_loss: 0.6908 - val_mrcnn_class_loss:  
0.0565 - val_mrcnn_bbox_loss: 0.0819 - val_mrcnn_mask_loss: 0.3822
```

Epoch 7/20

```
500/500 [=====] - 64s 128ms/step - loss: 0.8516 -  
rpn_class_loss: 0.0113 - rpn_bbox_loss: 0.4152 - mrcnn_class_loss: 0.0565 -  
mrcnn_bbox_loss: 0.0593 - mrcnn_mask_loss: 0.3092 - val_loss: 1.2439 -  
val_rpn_class_loss: 0.0069 - val_rpn_bbox_loss: 0.4180 - val_mrcnn_class_loss:  
0.4789 - val_mrcnn_bbox_loss: 0.0936 - val_mrcnn_mask_loss: 0.2466
```

Epoch 8/20

500/500 [=====] - 64s 127ms/step - loss: 0.7897 -
rpn_class_loss: 0.0110 - rpn_bbox_loss: 0.3616 - mrcnn_class_loss: 0.0704 -
mrcnn_bbox_loss: 0.0529 - mrcnn_mask_loss: 0.2939 - val_loss: 0.8155 -
val_rpn_class_loss: 0.0046 - val_rpn_bbox_loss: 0.5545 - val_mrcnn_class_loss:
0.0436 - val_mrcnn_bbox_loss: 0.0506 - val_mrcnn_mask_loss: 0.1623

Epoch 9/20

500/500 [=====] - 63s 127ms/step - loss: 0.7328 -
rpn_class_loss: 0.0099 - rpn_bbox_loss: 0.3202 - mrcnn_class_loss: 0.0651 -
mrcnn_bbox_loss: 0.0464 - mrcnn_mask_loss: 0.2912 - val_loss: 0.9305 -
val_rpn_class_loss: 0.0168 - val_rpn_bbox_loss: 0.3945 - val_mrcnn_class_loss:
0.0984 - val_mrcnn_bbox_loss: 0.0618 - val_mrcnn_mask_loss: 0.3590

Epoch 10/20

500/500 [=====] - 65s 129ms/step - loss: 0.7052 -
rpn_class_loss: 0.0103 - rpn_bbox_loss: 0.3265 - mrcnn_class_loss: 0.0500 -
mrcnn_bbox_loss: 0.0461 - mrcnn_mask_loss: 0.2723 - val_loss: 1.6111 -
val_rpn_class_loss: 0.0071 - val_rpn_bbox_loss: 0.7968 - val_mrcnn_class_loss:
0.3359 - val_mrcnn_bbox_loss: 0.1653 - val_mrcnn_mask_loss: 0.3060

Epoch 11/20

500/500 [=====] - 66s 132ms/step - loss: 0.6624 -
rpn_class_loss: 0.0105 - rpn_bbox_loss: 0.2816 - mrcnn_class_loss: 0.0478 -
mrcnn_bbox_loss: 0.0392 - mrcnn_mask_loss: 0.2833 - val_loss: 0.8429 -
val_rpn_class_loss: 0.0054 - val_rpn_bbox_loss: 0.4606 - val_mrcnn_class_loss:
0.0760 - val_mrcnn_bbox_loss: 0.0507 - val_mrcnn_mask_loss: 0.2501

Epoch 12/20

500/500 [=====] - 65s 131ms/step - loss: 0.6044 -
rpn_class_loss: 0.0104 - rpn_bbox_loss: 0.2498 - mrcnn_class_loss: 0.0417 -
mrcnn_bbox_loss: 0.0365 - mrcnn_mask_loss: 0.2659 - val_loss: 0.6243 -
val_rpn_class_loss: 0.0034 - val_rpn_bbox_loss: 0.3141 - val_mrcnn_class_loss:
0.0314 - val_mrcnn_bbox_loss: 0.0608 - val_mrcnn_mask_loss: 0.2145

Epoch 13/20

500/500 [=====] - 65s 130ms/step - loss: 0.5875 -
rpn_class_loss: 0.0092 - rpn_bbox_loss: 0.2291 - mrcnn_class_loss: 0.0486 -
mrcnn_bbox_loss: 0.0343 - mrcnn_mask_loss: 0.2664 - val_loss: 1.0164 -
val_rpn_class_loss: 0.0152 - val_rpn_bbox_loss: 0.5594 - val_mrcnn_class_loss:
0.1194 - val_mrcnn_bbox_loss: 0.0784 - val_mrcnn_mask_loss: 0.2439

Epoch 14/20

500/500 [=====] - 64s 127ms/step - loss: 0.5403 -
rpn_class_loss: 0.0085 - rpn_bbox_loss: 0.2172 - mrcnn_class_loss: 0.0370 -
mrcnn_bbox_loss: 0.0317 - mrcnn_mask_loss: 0.2459 - val_loss: 0.5973 -
val_rpn_class_loss: 0.0095 - val_rpn_bbox_loss: 0.3304 - val_mrcnn_class_loss:
0.0194 - val_mrcnn_bbox_loss: 0.0430 - val_mrcnn_mask_loss: 0.1949

Epoch 15/20

500/500 [=====] - 64s 127ms/step - loss: 0.5492 -
rpn_class_loss: 0.0078 - rpn_bbox_loss: 0.2267 - mrcnn_class_loss: 0.0314 -
mrcnn_bbox_loss: 0.0304 - mrcnn_mask_loss: 0.2528 - val_loss: 0.8304 -
val_rpn_class_loss: 0.0058 - val_rpn_bbox_loss: 0.4823 - val_mrcnn_class_loss:
0.0261 - val_mrcnn_bbox_loss: 0.0650 - val_mrcnn_mask_loss: 0.2512

Epoch 16/20
500/500 [=====] - 63s 127ms/step - loss: 0.4820 -
rpn_class_loss: 0.0073 - rpn_bbox_loss: 0.1795 - mrcnn_class_loss: 0.0398 -
mrcnn_bbox_loss: 0.0262 - mrcnn_mask_loss: 0.2292 - val_loss: 0.7643 -
val_rpn_class_loss: 0.0076 - val_rpn_bbox_loss: 0.3931 - val_mrcnn_class_loss:
0.0842 - val_mrcnn_bbox_loss: 0.0350 - val_mrcnn_mask_loss: 0.2444
Epoch 17/20
500/500 [=====] - 64s 127ms/step - loss: 0.4878 -
rpn_class_loss: 0.0085 - rpn_bbox_loss: 0.1874 - mrcnn_class_loss: 0.0279 -
mrcnn_bbox_loss: 0.0261 - mrcnn_mask_loss: 0.2379 - val_loss: 1.4177 -
val_rpn_class_loss: 0.0119 - val_rpn_bbox_loss: 0.7672 - val_mrcnn_class_loss:
0.2343 - val_mrcnn_bbox_loss: 0.0941 - val_mrcnn_mask_loss: 0.3101
Epoch 18/20
500/500 [=====] - 64s 128ms/step - loss: 0.4945 -
rpn_class_loss: 0.0069 - rpn_bbox_loss: 0.1824 - mrcnn_class_loss: 0.0287 -
mrcnn_bbox_loss: 0.0280 - mrcnn_mask_loss: 0.2485 - val_loss: 1.0642 -
val_rpn_class_loss: 0.0054 - val_rpn_bbox_loss: 0.4961 - val_mrcnn_class_loss:
0.2583 - val_mrcnn_bbox_loss: 0.0825 - val_mrcnn_mask_loss: 0.2219
Epoch 19/20
500/500 [=====] - 64s 128ms/step - loss: 0.4623 -
rpn_class_loss: 0.0085 - rpn_bbox_loss: 0.1649 - mrcnn_class_loss: 0.0276 -
mrcnn_bbox_loss: 0.0250 - mrcnn_mask_loss: 0.2363 - val_loss: 0.8449 -
val_rpn_class_loss: 0.0080 - val_rpn_bbox_loss: 0.2763 - val_mrcnn_class_loss:
0.2700 - val_mrcnn_bbox_loss: 0.0376 - val_mrcnn_mask_loss: 0.2530
Epoch 20/20
500/500 [=====] - 64s 128ms/step - loss: 0.4492 -
rpn_class_loss: 0.0072 - rpn_bbox_loss: 0.1610 - mrcnn_class_loss: 0.0262 -
mrcnn_bbox_loss: 0.0229 - mrcnn_mask_loss: 0.2319 - val_loss: 0.7999 -
val_rpn_class_loss: 0.0090 - val_rpn_bbox_loss: 0.2821 - val_mrcnn_class_loss:
0.2304 - val_mrcnn_bbox_loss: 0.0201 - val_mrcnn_mask_loss: 0.2584
Training took 25.22 minutes

```
[0]: # Fine tune all layers
# Passing layers="all" trains all layers. You can also
# pass a regular expression to select which layers to
# train by name pattern.

# start_train = time.time()
# model.train(dataset_train, dataset_val,
#             learning_rate=config.LEARNING_RATE / 10,
#             epochs=8,
#             layers="all")
# end_train = time.time()
# minutes = round((end_train - start_train) / 60, 2)
# print(f'Training took {minutes} minutes')
```

```
[0]: class InferenceConfig(Cervic_binary_classConfig):
    GPU_COUNT = 1
    IMAGES_PER_GPU = 1
    IMAGE_MIN_DIM = 512
    IMAGE_MAX_DIM = 512
    # DETECTION_MIN_CONFIDENCE = 0.85
    DETECTION_MIN_CONFIDENCE = 0.65

    inference_config = InferenceConfig()
```

```
[0]: # Set the ROOT_DIR variable to the root directory of the Mask_RCNN git repo
ROOT_DIR = '/content/drive/My Drive/'
assert os.path.exists(ROOT_DIR), 'ROOT_DIR does not exist. Did you forget to ↴read the instructions above? ;)'

# Import mrcnn libraries
sys.path.append(ROOT_DIR)
from mrcnn.config import Config
import mrcnn.utils as utils
from mrcnn import visualize
import mrcnn.model as modellib
```

```
[0]: # Recreate the model in inference mode
model = modellib.MaskRCNN(mode="inference",
                           config=inference_config,
                           model_dir=MODEL_DIR )
```

```
[30]: # Get path to saved weights

# Either set a specific path or find last trained weights
COCO_MODEL_PATH= '/content/drive/My Drive/binlogs/ ↴mask_rcnn_cervic_binary_class_one_0020.h5'
model_path = os.path.join(ROOT_DIR, COCO_MODEL_PATH )
#model_path = model.find_last()

# Load trained weights (fill in path to trained weights here)
assert model_path != "", "Provide path to trained weights"
print("Loading weights from ", model_path)
model.load_weights(model_path, by_name=True)
```

```
Loading weights from /content/drive/My
Drive/binlogs/mask_rcnn_cervic_binary_class_one_0020.h5
```

```
[0]: def class_find(cl_id):

    names= {
        '1': 'normal',
```

```

        '2': 'abnormal'

    }
return names.get(cl_id)

```

```
[33]: import skimage
real_test_dir = '/content/drive/My Drive/bin_cervic_test/abnormal'

acc=0
image_paths = []
file_count=0
for filename in os.listdir(real_test_dir):
    if os.path.splitext(filename)[1] in ['.png', '.jpg', '.jpeg', '.BMP']:
        image_paths.append(os.path.join(real_test_dir, filename))
        file_count+=1

for image_path in image_paths:
    print('filename:' + image_path)
    img = skimage.io.imread(image_path)
    img_arr = np.array(img)
    results = model.detect([img_arr], verbose=1)
    r = results[0]
    print(r['class_ids'][0])
    class_name=class_find(str(r['class_ids'][0]))
    actual_class= real_test_dir.rsplit('/', 1)[1]
    if class_name==actual_class:
        acc+=1
    print('Predicted class : ' + class_name + ' Actual class :'+actual_class)
    visualize.display_instances(img, r['rois'], r['masks'], r['class_ids'],
                                dataset_val.class_names, r['scores'], □
                                figsize=(5,5))
print('Total no. of images in ',actual_class, ' is ', file_count)
print('No. of images correctly classified is ', acc)
accper=(acc/file_count) *100
print('Accuracy of class: ' , actual_class, ' is ', str(accper))

# import skimage
# real_test_dir = '/content/drive/My Drive/bin_cervic_test/normal'
# image_paths = []
# for filename in os.listdir(real_test_dir):
#     if os.path.splitext(filename)[1] in ['.png', '.jpg', '.jpeg', '.BMP']:
#         image_paths.append(os.path.join(real_test_dir, filename))

# for image_path in image_paths:
#     print('filename:' + image_path)
#     img = skimage.io.imread(image_path)
#     img_arr = np.array(img)
```

```

#     results = model.detect([img_arr], verbose=1)
#     r = results[0]
#     visualize.display_instances(img, r['rois'], r['masks'], r['class_ids'],
#                                 dataset_val.class_names, r['scores'],  

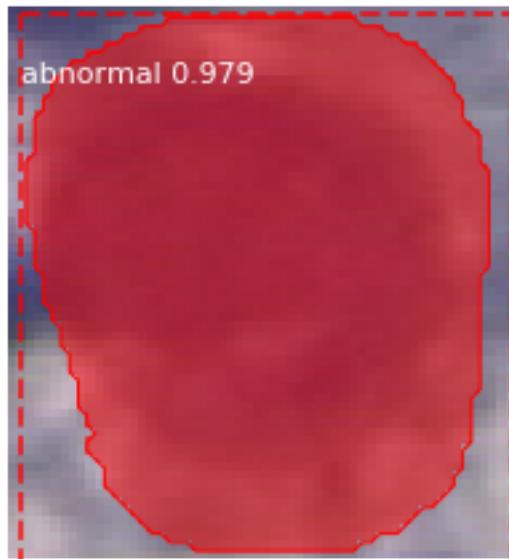
#                                 figsize=(5,5))

```

```

filename:/content/drive/My
Drive/bin_cervic_test/abnormal/149316426-149316462-001.BMP
Processing 1 images
image                      shape: (63, 58, 3)          min:   62.00000  max:
199.00000  uint8
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:
90.10000  float64
image_metas                 shape: (1, 15)              min:    0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal

```

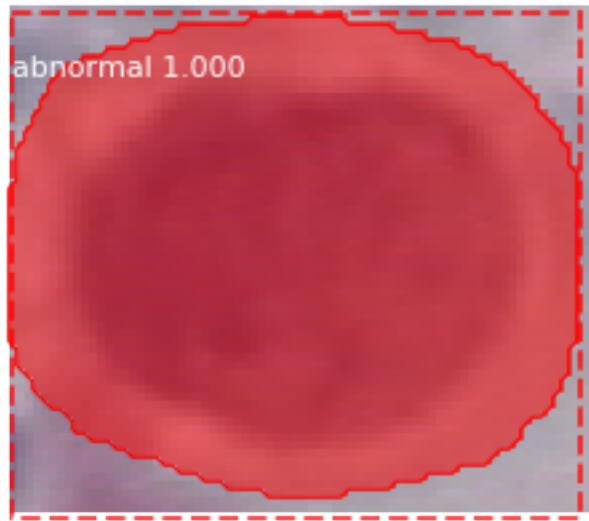


```

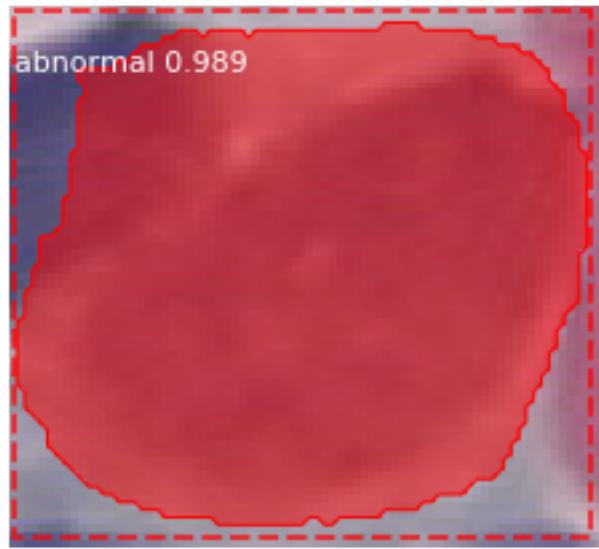
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/149316426-149316462-002.BMP
Processing 1 images

```

```
image                      shape: (63, 73, 3)          min:  74.00000  max:  
202.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
97.10000  float64  
image_metas                 shape: (1, 15)           min:  0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)      min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



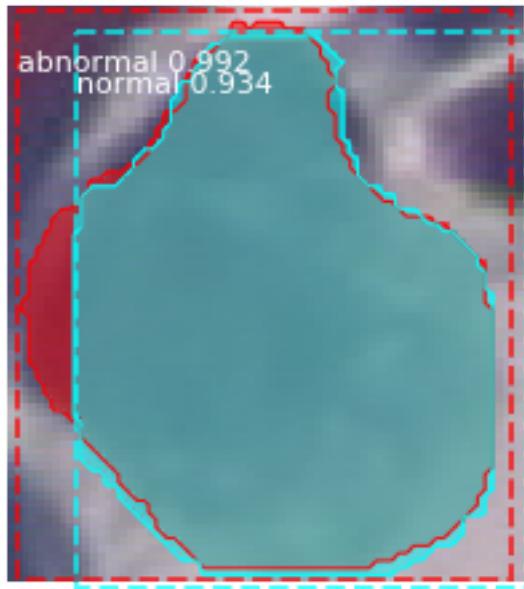
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/149316426-149316462-003.BMP  
Processing 1 images  
image                      shape: (71, 78, 3)          min:  61.00000  max:  
211.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
103.10000  float64  
image_metas                 shape: (1, 15)           min:  0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)      min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



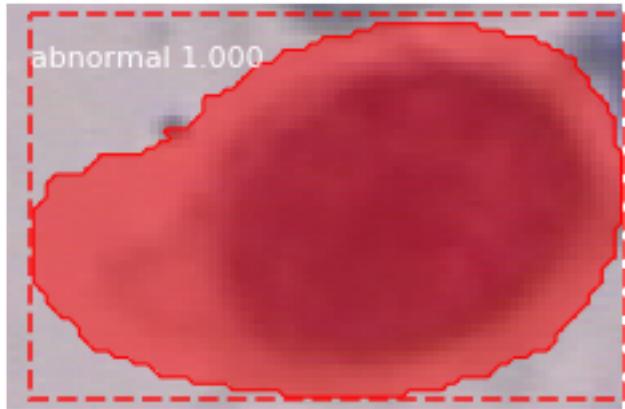
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/149316426-149316462-004.BMP  
Processing 1 images  
image shape: (43, 79, 3) min: 76.00000 max:  
200.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
95.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



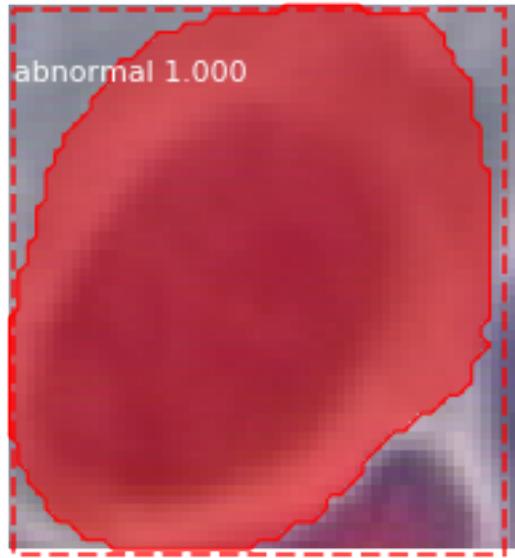
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/149317114-149317152-002.BMP  
Processing 1 images  
image                      shape: (77, 69, 3)          min:  51.00000  max:  
216.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
105.10000  float64  
image_metas                 shape: (1, 15)            min:  0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)      min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/149317114-149317152-001.BMP
Processing 1 images
image                      shape: (62, 94, 3)          min:  58.00000  max:
210.00000  uint8
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:
104.10000  float64
image_metas                 shape: (1, 15)            min:  0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)      min: -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/149317114-149317152-004.BMP  
Processing 1 images  
image shape: (60, 56, 3) min: 53.00000 max:  
201.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
94.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/149357956-149358043-001.BMP
Processing 1 images
image                      shape: (96, 68, 3)          min:  42.00000  max:
196.00000  uint8
molded_images               shape: (1, 512, 512, 3)    min: -123.70000  max:
79.10000  float64
image_metas                 shape: (1, 15)            min:  0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)      min: -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



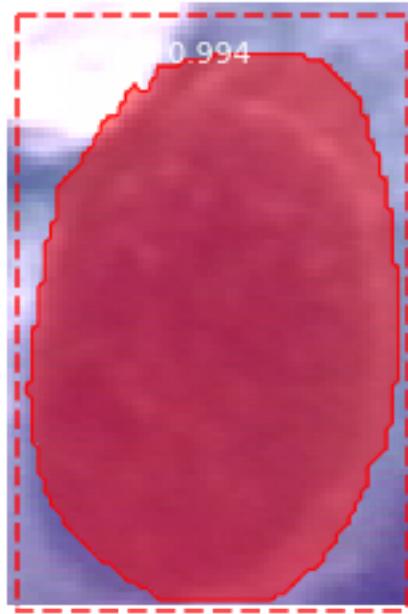
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153826597-153826619-001.BMP  
Processing 1 images  
image shape: (81, 70, 3) min: 56.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



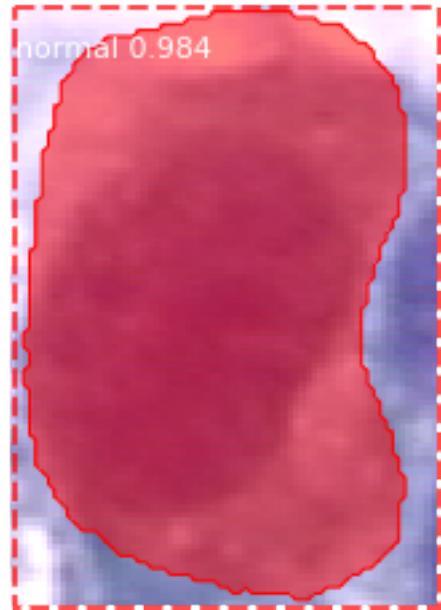
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153826597-153826619-002.BMP  
Processing 1 images  
image shape: (70, 112, 3) min: 72.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



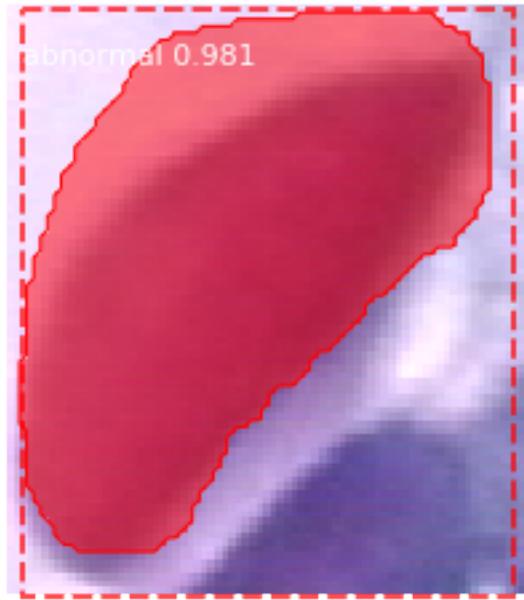
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153827595-153827657-001.BMP  
Processing 1 images  
image shape: (97, 65, 3) min: 65.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



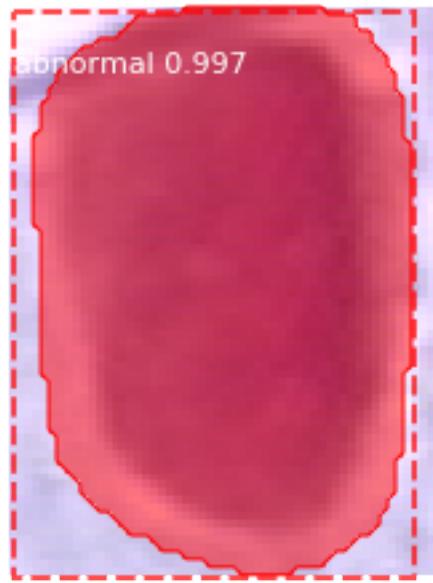
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153827595-153827657-002.BMP  
Processing 1 images  
image                      shape: (96, 68, 3)          min:   62.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)            min:    0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)      min: -0.17712  max:  
1.05188  float32  
1  
Predicted class :normal Actual class :abnormal
```



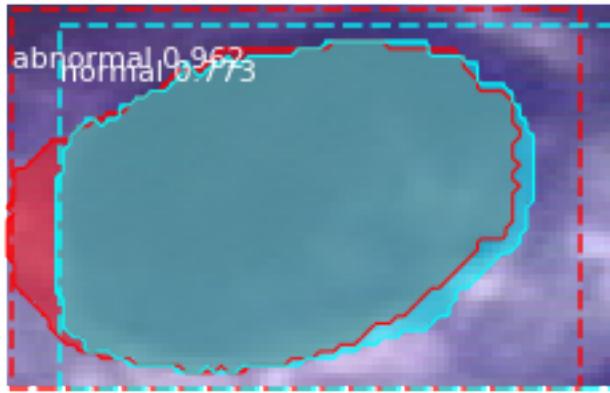
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153827595-153827664-001.BMP  
Processing 1 images  
image                      shape: (85, 75, 3)          min:   60.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)            min:    0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



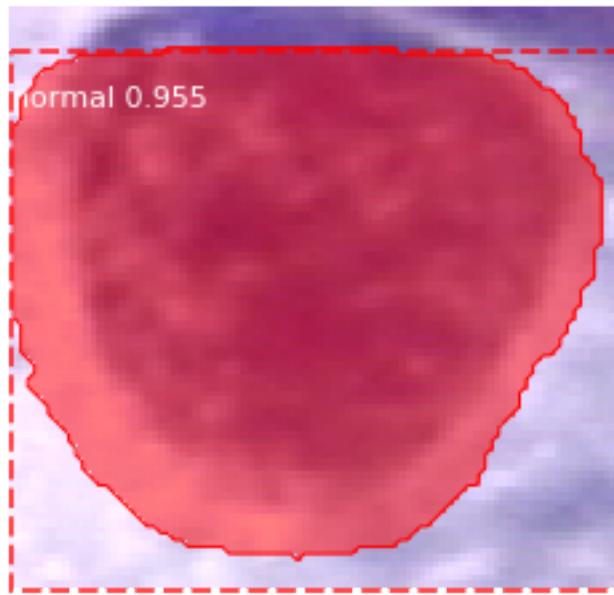
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153827595-153827669-001.BMP  
Processing 1 images  
image                      shape: (72, 54, 3)          min:   68.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)            min:    0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)      min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



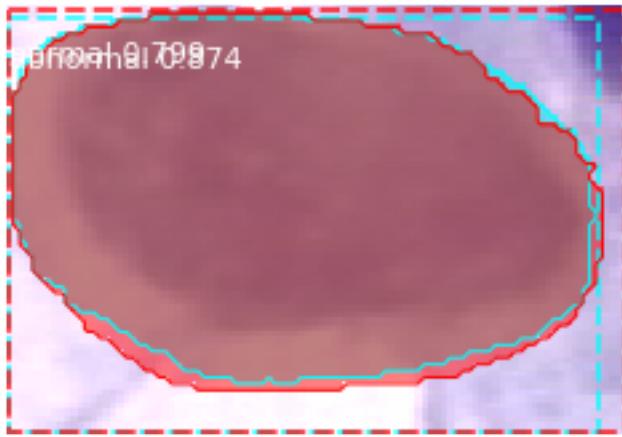
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153830680-153830693-001.BMP  
Processing 1 images  
image shape: (54, 86, 3) min: 44.00000 max:  
252.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
146.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



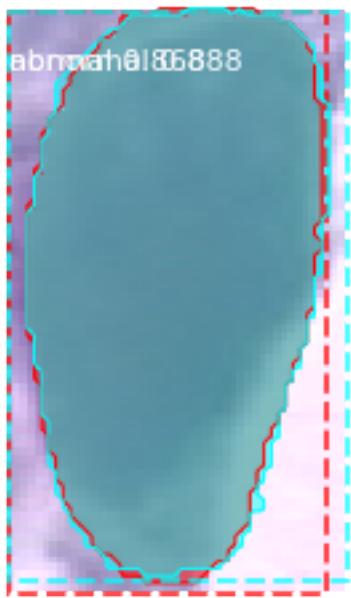
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153831027-153831036-001.BMP  
Processing 1 images  
image shape: (85, 89, 3) min: 48.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



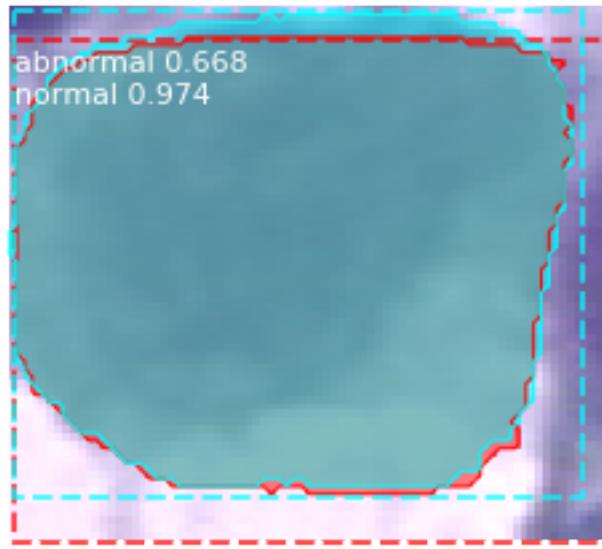
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153831027-153831036-002.BMP  
Processing 1 images  
image shape: (66, 95, 3) min: 53.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



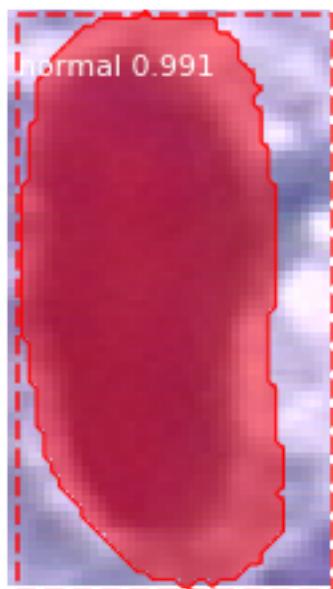
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153831027-153831045-001.BMP
Processing 1 images
image                      shape: (81, 47, 3)          min:    54.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:
151.10000  float64
image_metas                 shape: (1, 15)            min:     0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



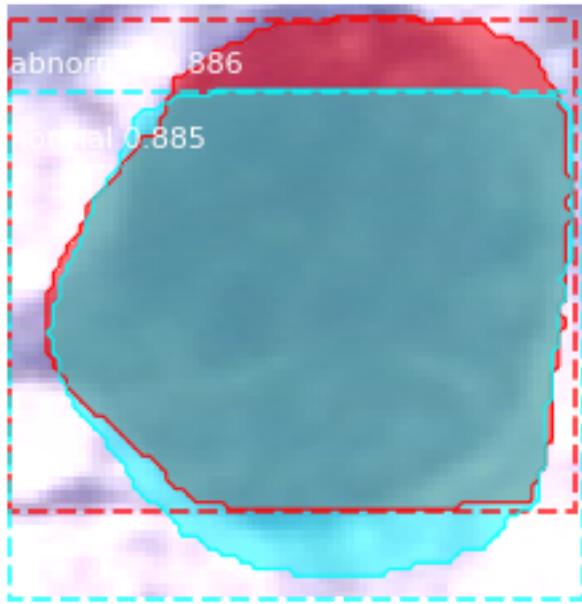
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153831027-153831045-002.BMP
Processing 1 images
image                      shape: (70, 78, 3)          min:   60.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)    min: -123.70000  max:
151.10000  float64
image_metas                 shape: (1, 15)            min:     0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)      min:   -0.17712  max:
1.05188  float32
1
Predicted class :normal Actual class :abnormal
```



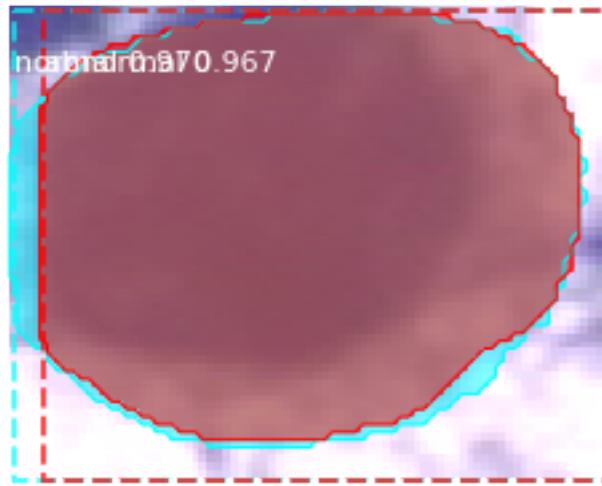
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153831027-153831045-003.BMP
Processing 1 images
image                      shape: (77, 43, 3)          min:    48.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:
151.10000  float64
image_metas                 shape: (1, 15)            min:     0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:
1.05188  float32
1
Predicted class :normal Actual class :abnormal
```



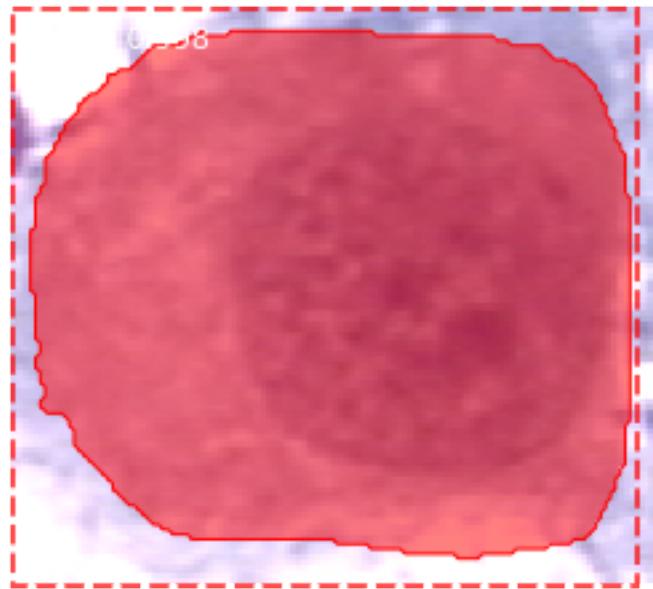
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153831426-153831438-001.BMP  
Processing 1 images  
image shape: (89, 87, 3) min: 64.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



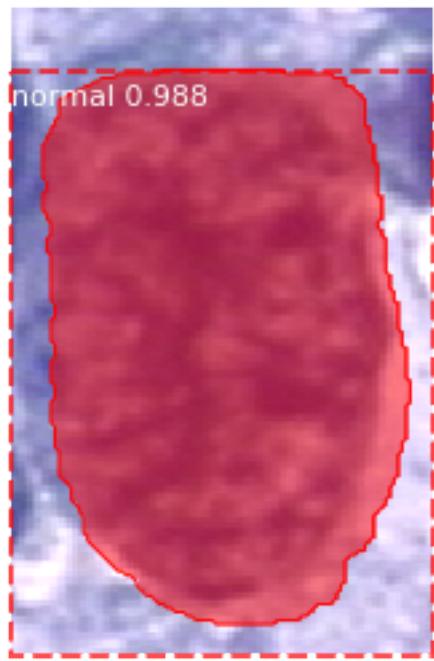
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153831471-153831479-001.BMP  
Processing 1 images  
image shape: (62, 78, 3) min: 52.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



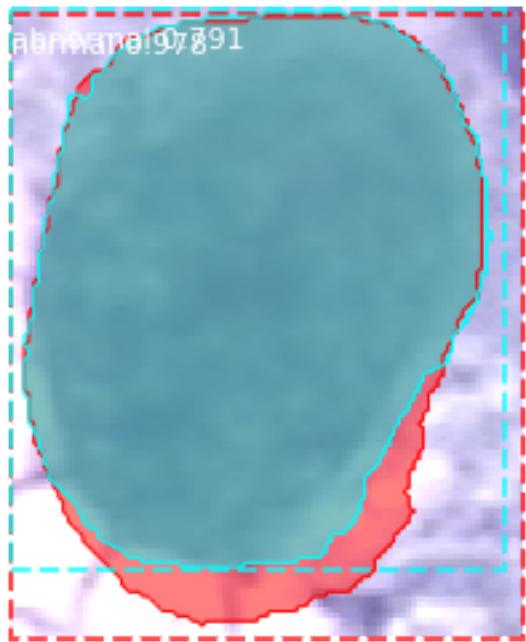
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153831471-153831486-001.BMP  
Processing 1 images  
image shape: (119, 134, 3) min: 78.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



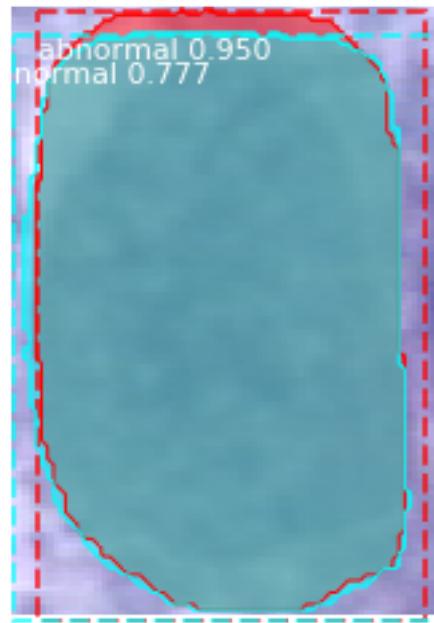
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153831471-153831486-002.BMP
Processing 1 images
image           shape: (158, 103, 3)      min:  54.00000  max:
255.00000  uint8
molded_images   shape: (1, 512, 512, 3)    min: -123.70000  max:
151.10000  float64
image_metas     shape: (1, 15)          min:  0.00000  max:
512.00000  float64
anchors         shape: (1, 65472, 4)      min: -0.17712  max:
1.05188  float32
1
Predicted class :normal Actual class :abnormal
```



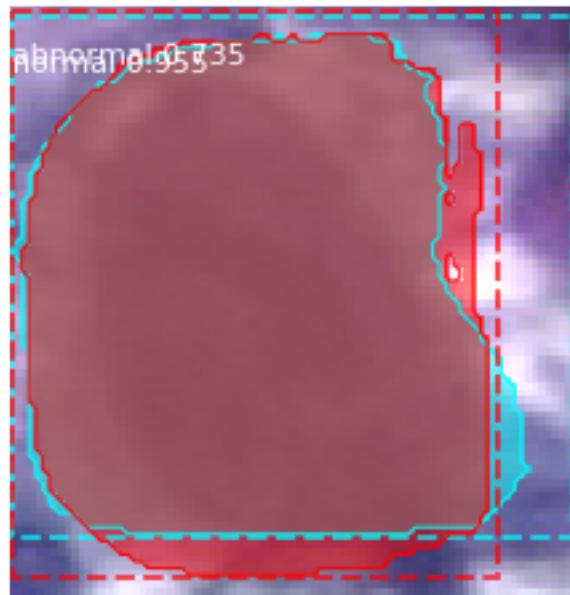
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153831471-153831486-003.BMP  
Processing 1 images  
image                      shape: (129, 105, 3)          min:   68.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)                  min:     0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
1  
Predicted class :normal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153831471-153831486-004.BMP  
Processing 1 images  
image                      shape: (102, 71, 3)          min:    76.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)            min:     0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)      min:   -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



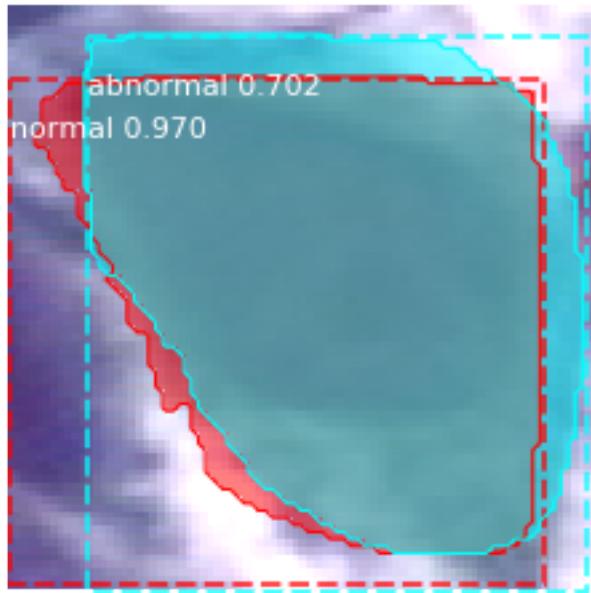
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153916114-153916150-001.BMP
Processing 1 images
image                      shape: (86, 82, 3)          min:  40.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:
151.10000  float64
image_metas                 shape: (1, 15)            min:  0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:
1.05188  float32
1
Predicted class :normal Actual class :abnormal
```



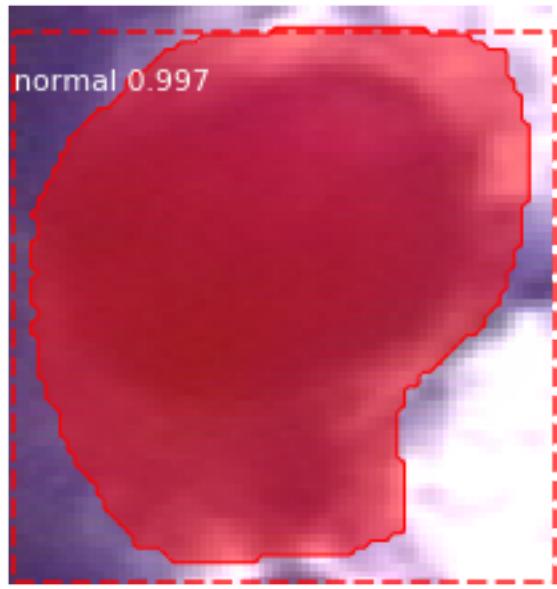
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153916114-153916167-001.BMP
Processing 1 images
image                      shape: (96, 66, 3)          min:  41.00000  max:
215.00000  uint8
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:
108.10000  float64
image_metas                 shape: (1, 15)            min:  0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)      min: -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



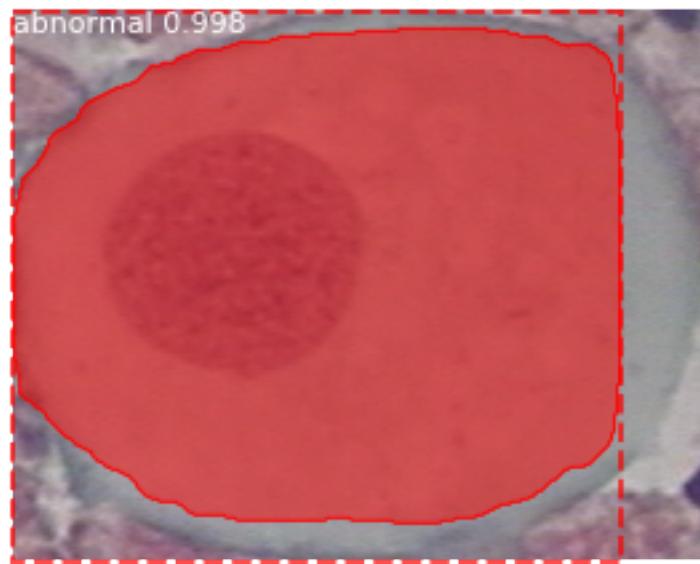
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153916114-153916167-002.BMP
Processing 1 images
image                      shape: (82, 82, 3)          min:  48.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)      min: -75.70000  max:
151.10000  float64
image_metas                 shape: (1, 15)            min:  0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:
1.05188  float32
1
Predicted class :normal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153916569-153916586-001.BMP  
Processing 1 images  
image                      shape: (79, 74, 3)          min:  44.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)            min:  0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)      min: -0.17712  max:  
1.05188  float32  
1  
Predicted class :normal Actual class :abnormal
```



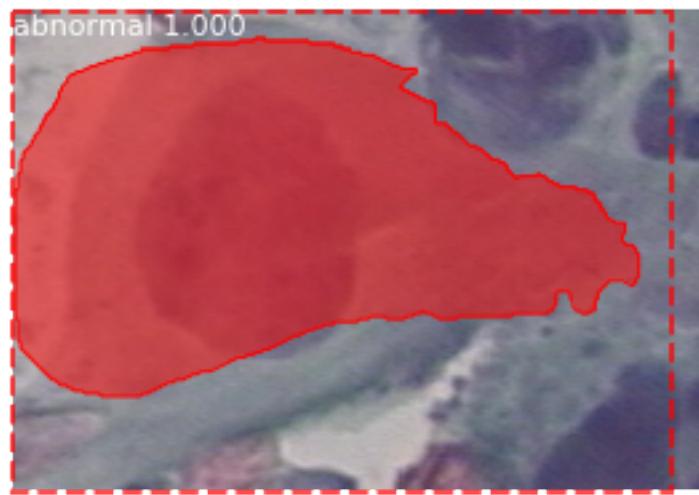
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153657327-153657363-002.BMP
Processing 1 images
image                      shape: (206, 259, 3)          min:  51.00000  max:
207.00000  uint8
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:
100.10000  float64
image_metas                 shape: (1, 15)                  min:  0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



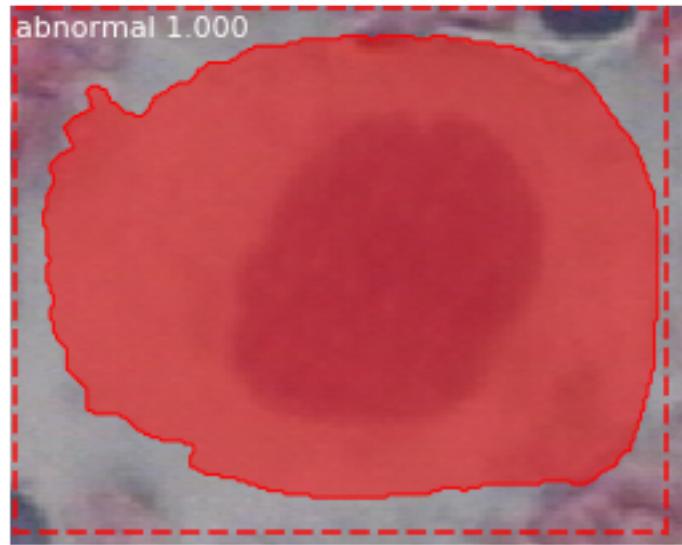
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153657419-153657488-001.BMP
Processing 1 images
image                      shape: (178, 148, 3)          min:   83.00000  max:
199.00000  uint8
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:
87.10000  float64
image_metas                 shape: (1, 15)                  min:    0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min:  -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



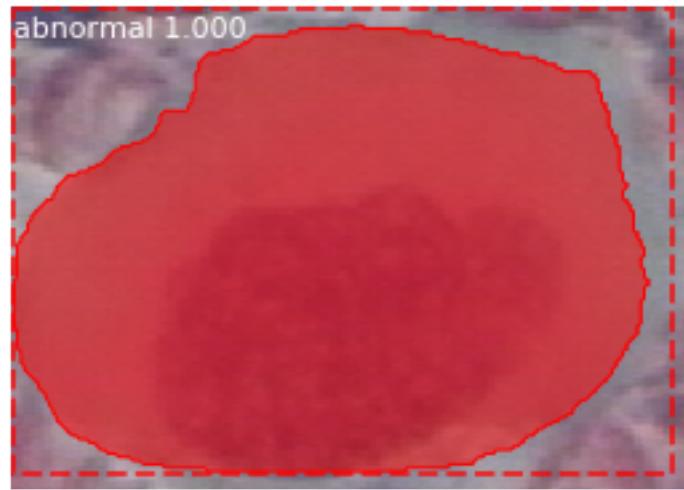
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153657419-153657488-002.BMP  
Processing 1 images  
image                      shape: (174, 251, 3)          min:   55.00000  max:  
205.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
96.10000  float64  
image_metas                 shape: (1, 15)                  min:     0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



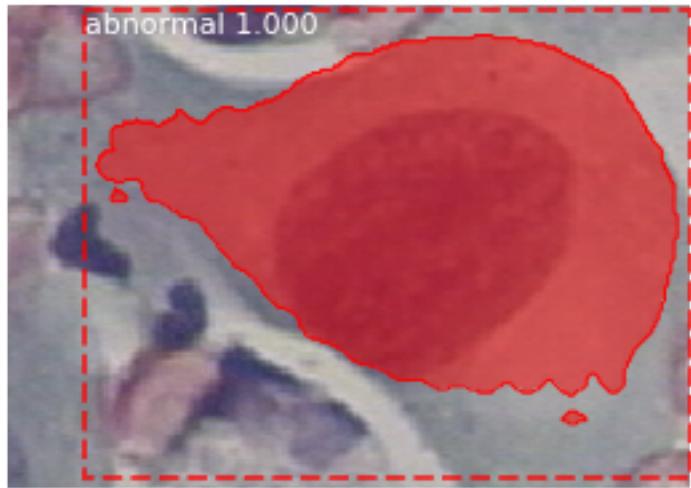
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153657599-153657610-001.BMP  
Processing 1 images  
image shape: (161, 203, 3) min: 51.00000 max:  
191.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
69.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153657599-153657610-002.BMP
Processing 1 images
image                      shape: (135, 189, 3)          min:   60.00000  max:
193.00000  uint8
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:
79.10000  float64
image_metas                 shape: (1, 15)                  min:    0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min:  -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153657599-153657622-002.BMP  
Processing 1 images  
image shape: (154, 218, 3) min: 53.00000 max:  
209.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
96.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



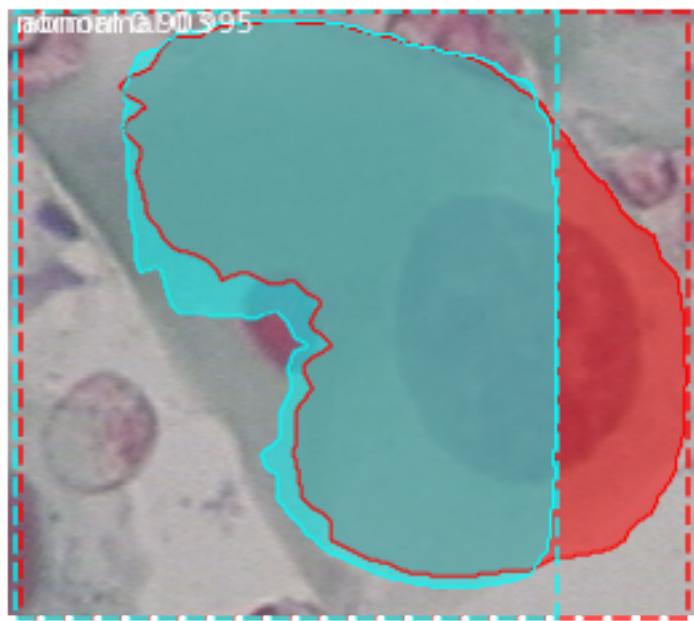
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153657599-153657633-001.BMP  
Processing 1 images  
image shape: (168, 156, 3) min: 67.00000 max:  
189.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
82.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



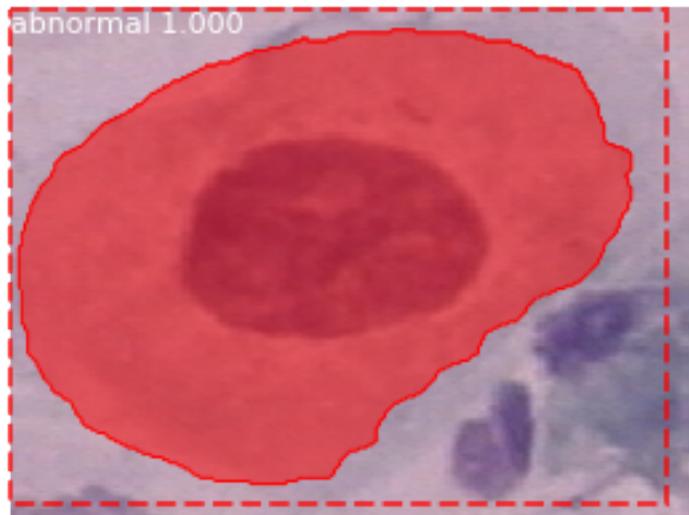
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153657599-153657633-002.BMP  
Processing 1 images  
image                      shape: (135, 176, 3)          min:   84.00000  max:  
151.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
45.10000  float64  
image_metas                 shape: (1, 15)                  min:    0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



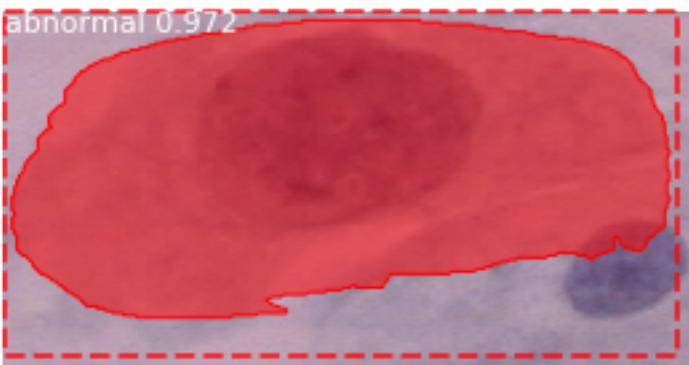
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153657698-153657708-001.BMP  
Processing 1 images  
image shape: (226, 258, 3) min: 74.00000 max:  
207.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
94.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



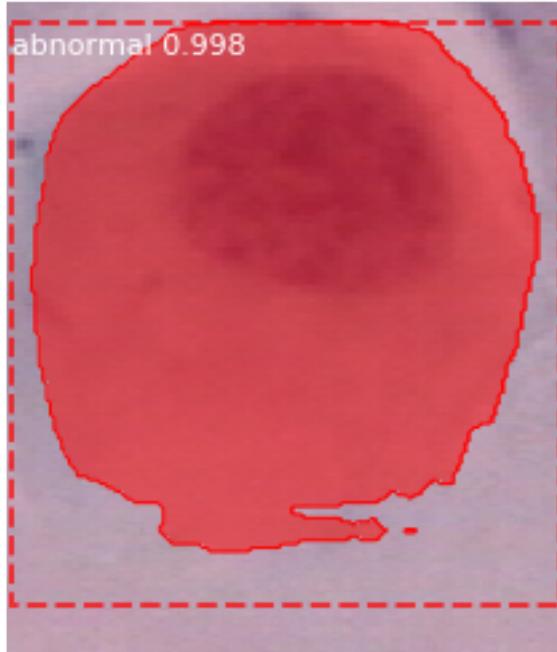
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153697097-153697106-001.BMP  
Processing 1 images  
image shape: (169, 228, 3) min: 62.00000 max:  
209.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
97.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153697726-153697736-001.BMP  
Processing 1 images  
image shape: (155, 303, 3) min: 60.00000 max:  
201.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
90.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```

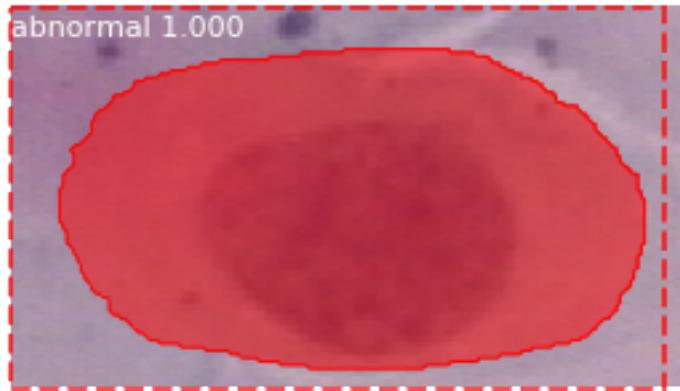


```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153700207-153700215-001.BMP  
Processing 1 images  
image shape: (173, 147, 3) min: 62.00000 max:  
207.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
89.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153700207-153700224-001.BMP  
Processing 1 images  
image shape: (107, 190, 3) min: 68.00000 max:  
199.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
90.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:
```

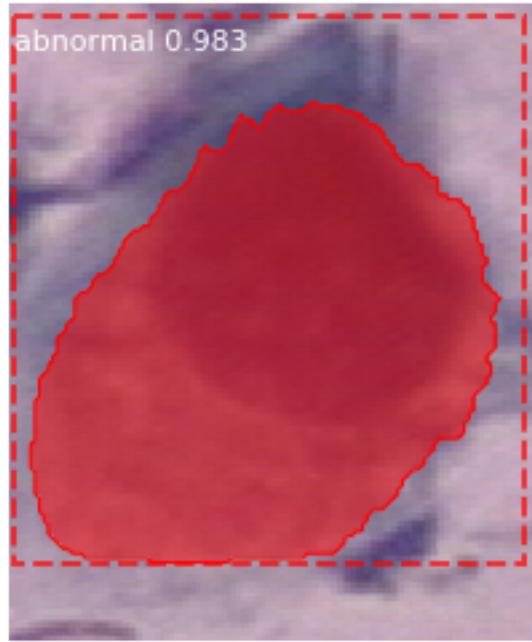
```
512.00000 float64
anchors shape: (1, 65472, 4) min: -0.17712 max:
1.05188 float32
2
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153701009-153701019-001.BMP
Processing 1 images
image shape: (76, 152, 3) min: 46.00000 max:
215.00000 uint8
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:
100.10000 float64
image_metas shape: (1, 15) min: 0.00000 max:
512.00000 float64
anchors shape: (1, 65472, 4) min: -0.17712 max:
1.05188 float32
2
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153701009-153701019-002.BMP
Processing 1 images
image                      shape: (144, 119, 3)          min:   50.00000  max:
209.00000  uint8
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:
94.10000  float64
image_metas                 shape: (1, 15)                  min:    0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



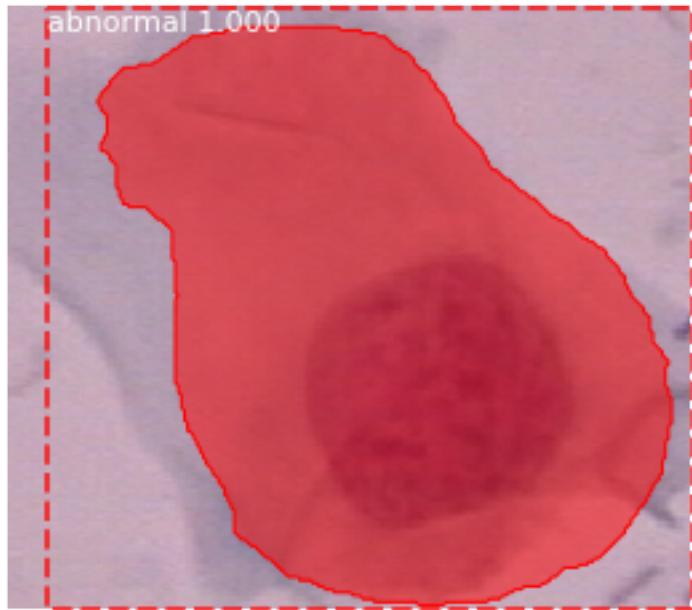
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153701949-153701958-001.BMP  
Processing 1 images  
image                      shape: (175, 157, 3)          min:   46.00000  max:  
191.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
86.10000  float64  
image_metas                 shape: (1, 15)                  min:     0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



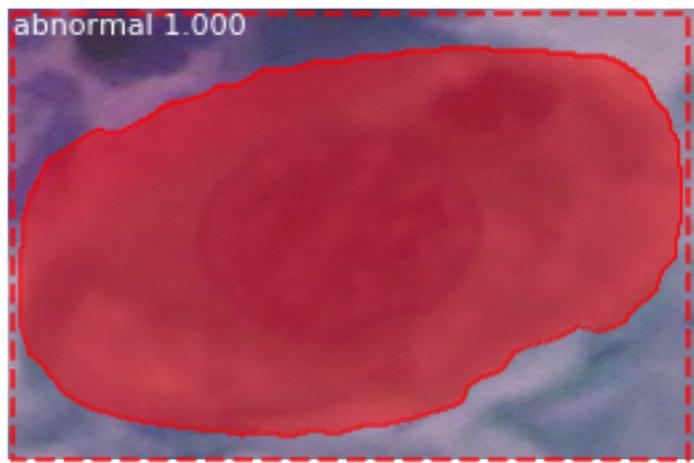
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153701557-153701566-001.BMP  
Processing 1 images  
image                      shape: (202, 183, 3)          min:  52.00000  max:  
213.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
107.10000  float64  
image_metas                 shape: (1, 15)                  min:  0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



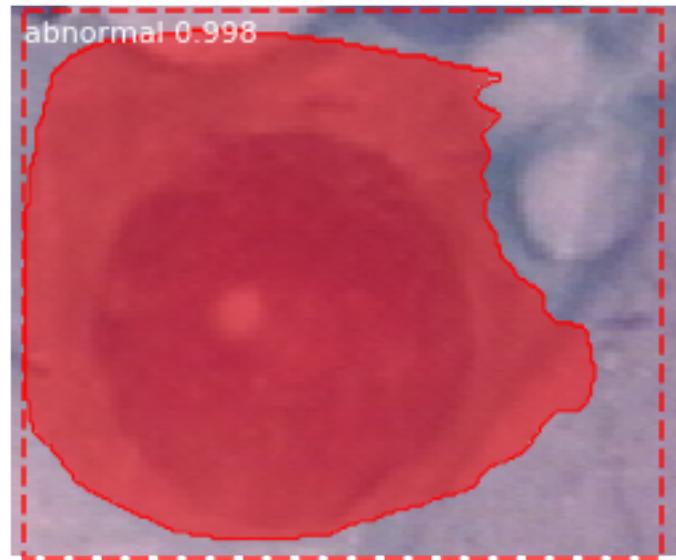
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153701139-153701148-001.BMP
Processing 1 images
image                      shape: (194, 220, 3)          min:   44.00000  max:
211.00000  uint8
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:
96.10000  float64
image_metas                 shape: (1, 15)                  min:    0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



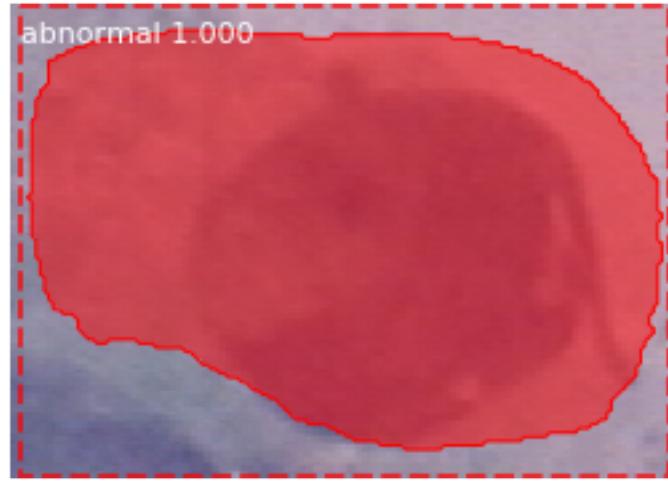
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153701949-153701964-001.BMP  
Processing 1 images  
image shape: (167, 257, 3) min: 41.00000 max:  
187.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
82.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



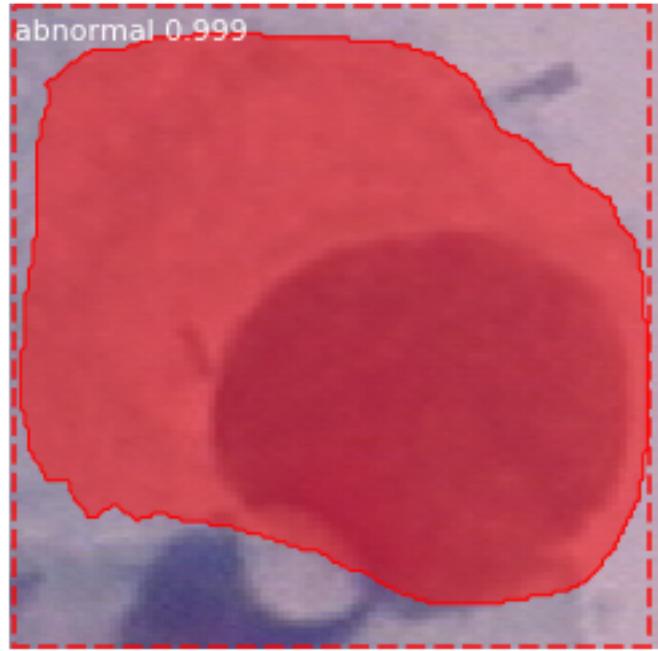
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153702037-153702051-001.BMP  
Processing 1 images  
image                      shape: (150, 184, 3)          min:   69.00000  max:  
203.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
90.10000  float64  
image_metas                 shape: (1, 15)                  min:     0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



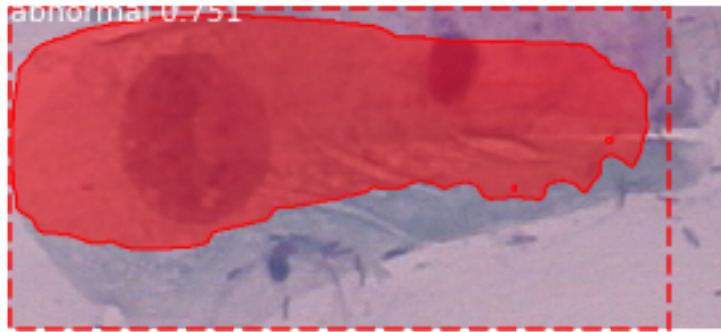
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153702037-153702051-003.BMP  
Processing 1 images  
image                      shape: (112, 156, 3)          min:   88.00000  max:  
202.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
95.10000  float64  
image_metas                 shape: (1, 15)                  min:    0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



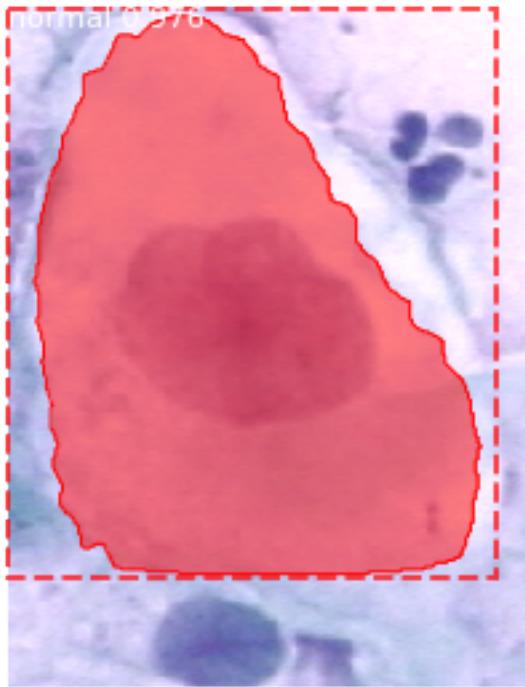
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153702037-153702051-002.BMP  
Processing 1 images  
image           shape: (157, 160, 3)      min:  59.00000  max:  
200.00000  uint8  
molded_images   shape: (1, 512, 512, 3)    min: -123.70000  max:  
95.10000  float64  
image_metas     shape: (1, 15)          min:  0.00000  max:  
512.00000  float64  
anchors         shape: (1, 65472, 4)      min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



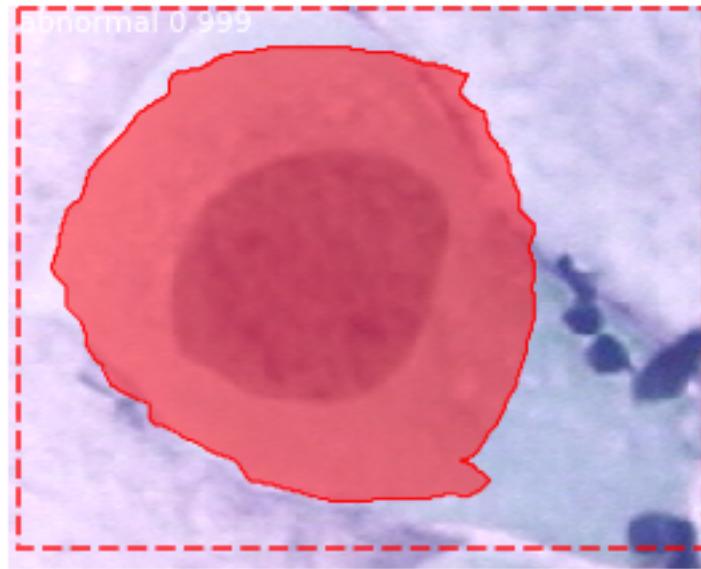
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153702037-153702060-001.BMP  
Processing 1 images  
image                      shape: (224, 498, 3)          min:  51.00000  max:  
214.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
100.10000  float64  
image_metas                 shape: (1, 15)                  min:  0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



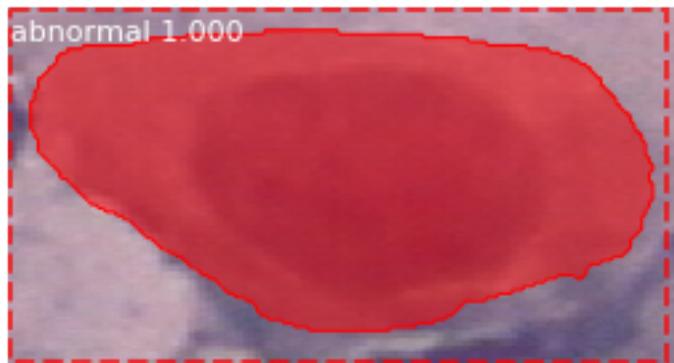
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153829664-153829672-001.BMP
Processing 1 images
image                      shape: (291, 224, 3)          min:    73.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:
151.10000  float64
image_metas                 shape: (1, 15)                  min:     0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:
1.05188  float32
1
Predicted class :normal Actual class :abnormal
```



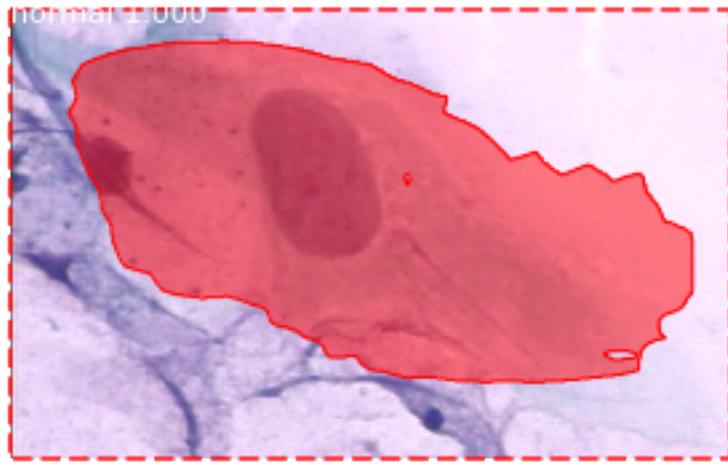
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153829700-153829705-001.BMP
Processing 1 images
image                      shape: (229, 284, 3)          min:  53.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:
151.10000  float64
image_metas                 shape: (1, 15)                  min:  0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



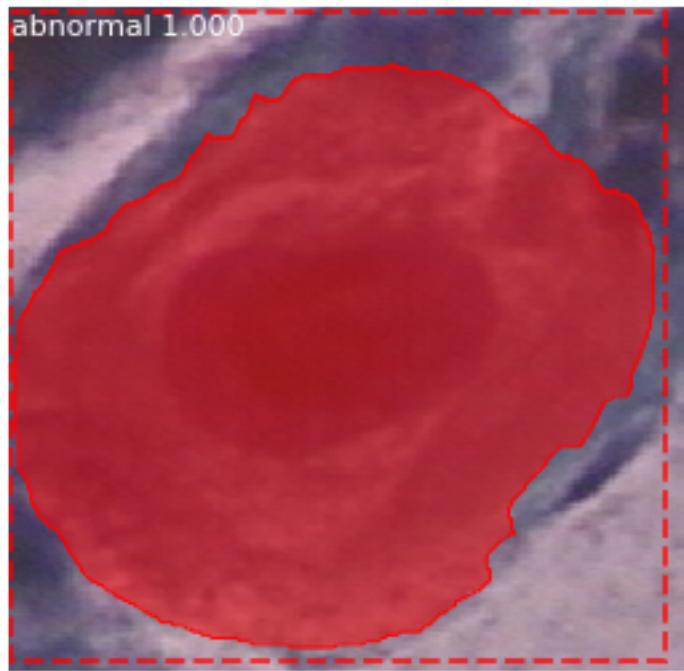
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/154519964-154519981-001.BMP  
Processing 1 images  
image                      shape: (97, 181, 3)          min:   59.00000  max:  
205.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
88.10000  float64  
image_metas                 shape: (1, 15)                  min:    0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



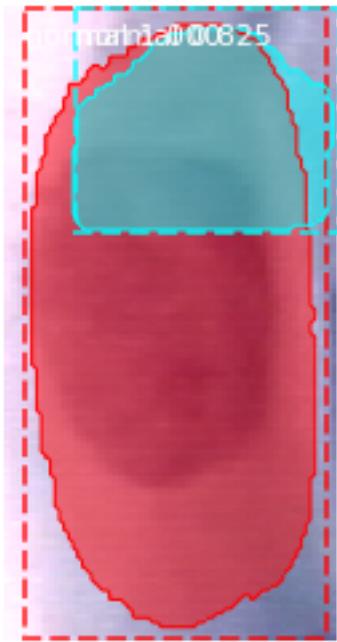
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153829745-153829754-001.BMP  
Processing 1 images  
image shape: (360, 577, 3) min: 35.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
577.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/154520056-154520096-001.BMP  
Processing 1 images  
image shape: (211, 216, 3) min: 42.00000 max:  
215.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
96.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



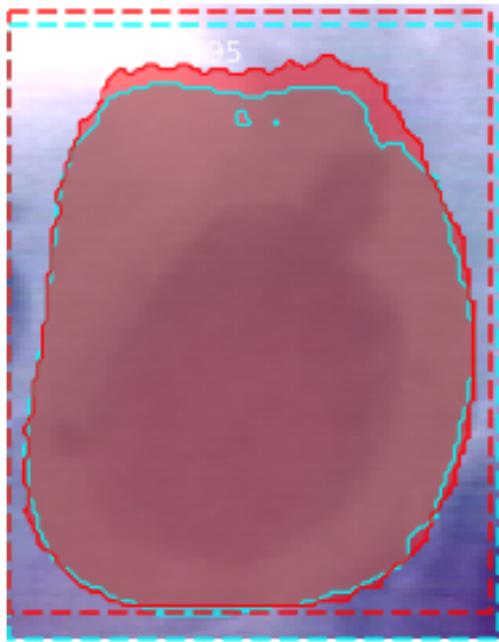
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/204870858-204870872-001.BMP
Processing 1 images
image                      shape: (139, 73, 3)          min:  54.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:
151.10000  float64
image_metas                 shape: (1, 15)                  min:  0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:
1.05188  float32
1
Predicted class :normal Actual class :abnormal
```



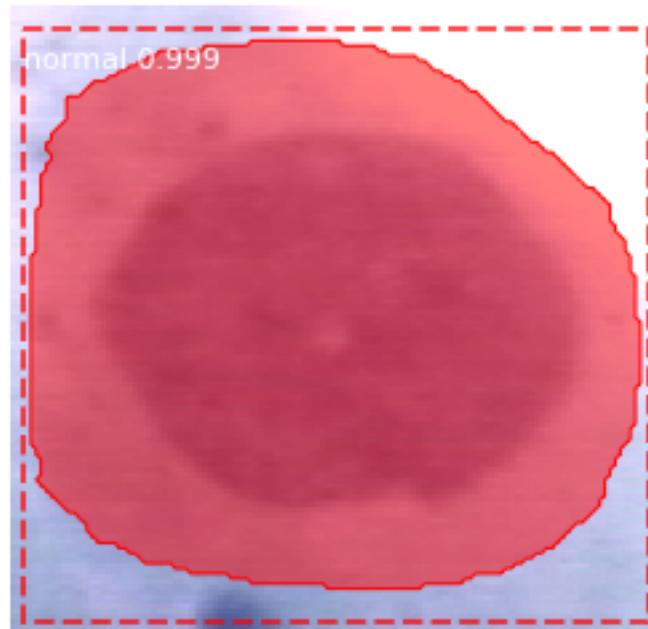
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/204870858-204870872-002.BMP
Processing 1 images
image                      shape: (109, 88, 3)          min:  46.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:
151.10000  float64
image_metas                 shape: (1, 15)                  min:  0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:
1.05188  float32
1
Predicted class :normal Actual class :abnormal
```



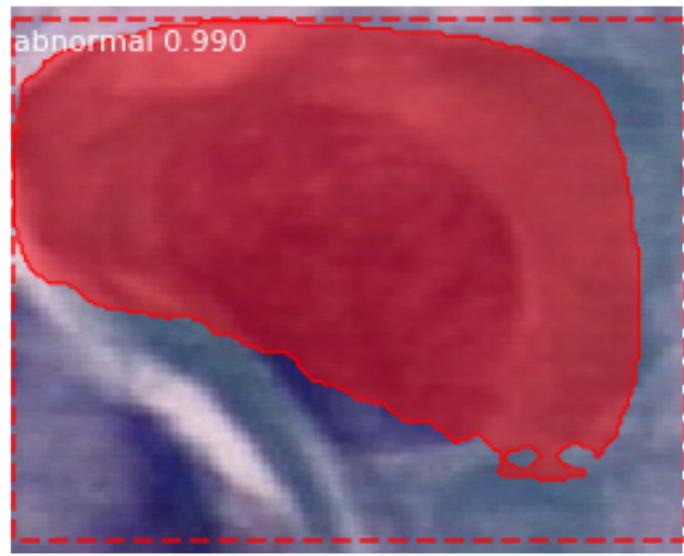
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/204870926-204870933-001.BMP  
Processing 1 images  
image                      shape: (137, 107, 3)          min:  39.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)                  min:  0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



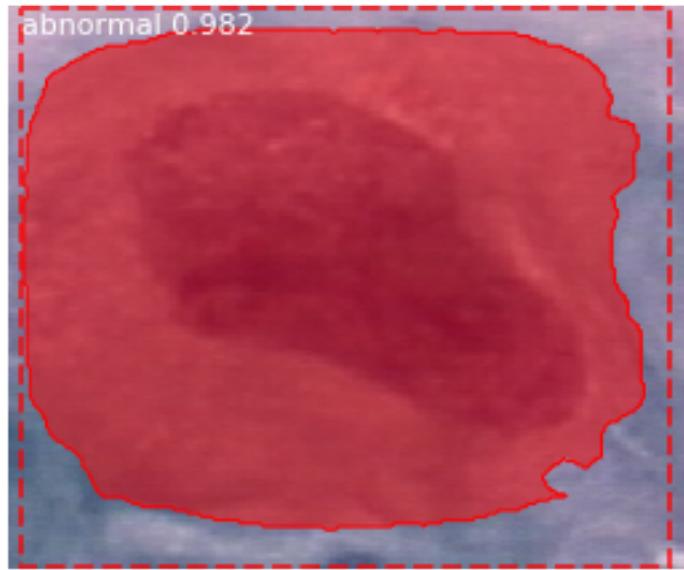
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/204870926-204870933-002.BMP  
Processing 1 images  
image                      shape: (123, 126, 3)          min:  79.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)                  min:  0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:  
1.05188  float32  
1  
Predicted class :normal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/204870951-204870961-001.BMP  
Processing 1 images  
image                      shape: (150, 185, 3)          min:   26.00000  max:  
233.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
118.10000  float64  
image_metas                 shape: (1, 15)                  min:     0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



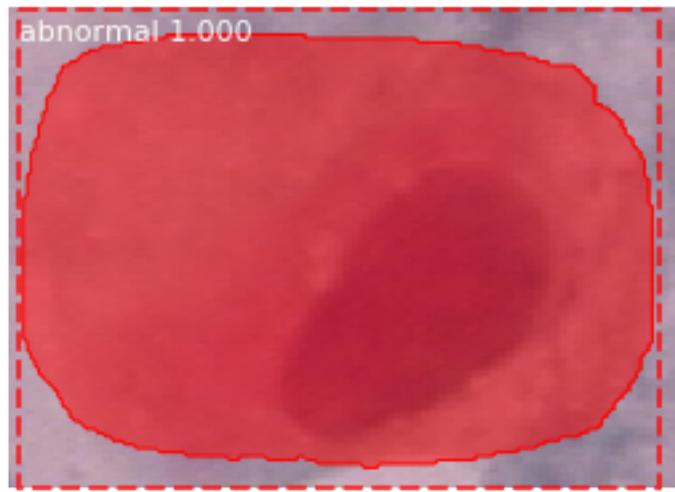
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/204870951-204870961-002.BMP  
Processing 1 images  
image                      shape: (172, 208, 3)          min:  28.00000  max:  
229.00000  uint8  
molded_images              shape: (1, 512, 512, 3)        min: -123.70000  max:  
123.10000  float64  
image_metas                shape: (1, 15)                  min:  0.00000  max:  
512.00000  float64  
anchors                    shape: (1, 65472, 4)        min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



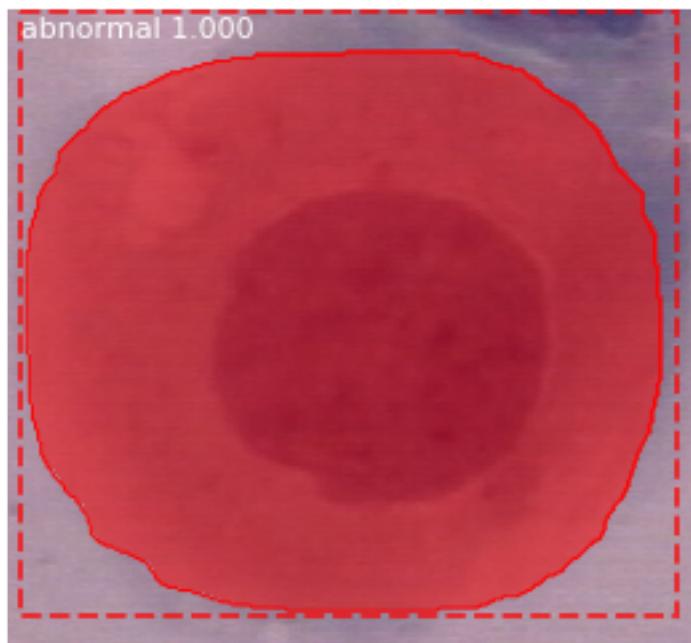
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/204871030-204871038-001.BMP  
Processing 1 images  
image                      shape: (171, 206, 3)          min:    7.00000  max:  
189.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
75.10000  float64  
image_metas                 shape: (1, 15)                  min:    0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



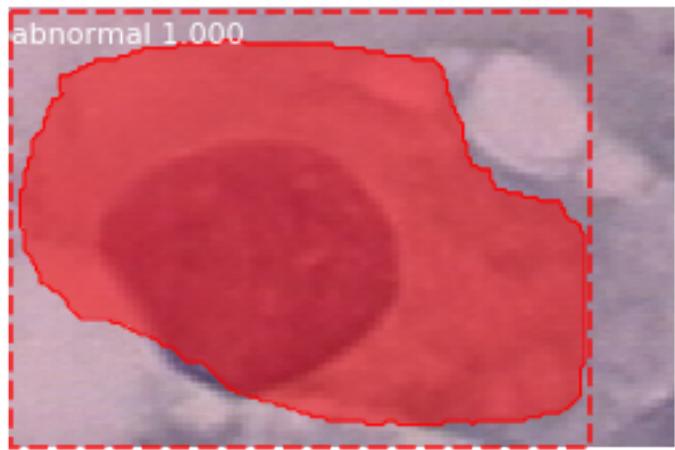
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153276386-153276405-003.BMP  
Processing 1 images  
image                      shape: (124, 173, 3)          min:   58.00000  max:  
209.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
90.10000  float64  
image_metas                 shape: (1, 15)                  min:    0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min:  -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



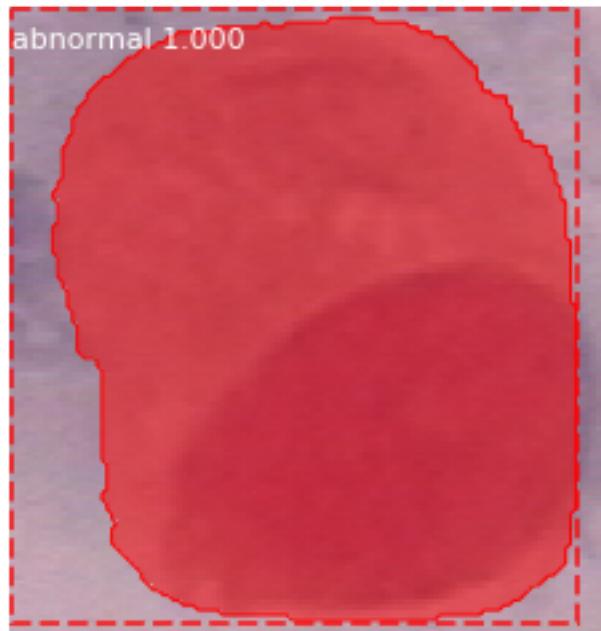
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/204871030-204871038-002.BMP  
Processing 1 images  
image shape: (217, 235, 3) min: 34.00000 max:  
201.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
84.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153276386-153276405-004.BMP  
Processing 1 images  
image                      shape: (112, 170, 3)          min:   68.00000  max:  
213.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
94.10000  float64  
image_metas                 shape: (1, 15)                  min:     0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153276386-153276414-001.BMP
Processing 1 images
image                      shape: (127, 121, 3)          min:  80.00000  max:
205.00000  uint8
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:
83.10000  float64
image_metas                 shape: (1, 15)                  min:  0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



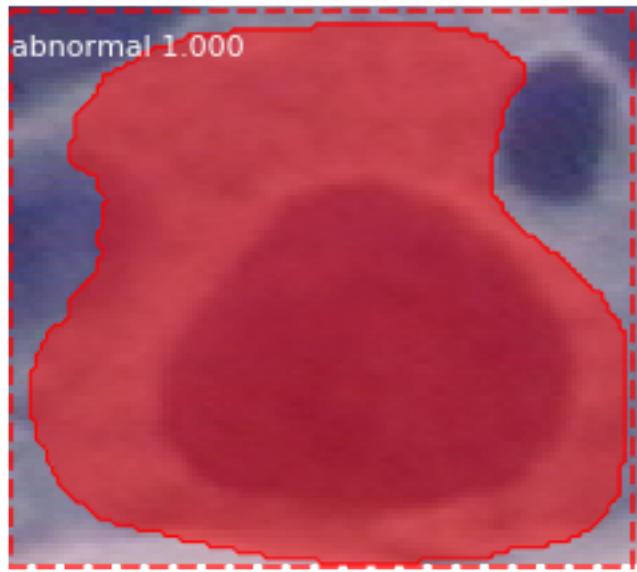
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153276799-153276818-002.BMP
Processing 1 images
image                      shape: (175, 163, 3)          min:   64.00000  max:
213.00000  uint8
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:
98.10000  float64
image_metas                 shape: (1, 15)                  min:     0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153697342-153697353-001.BMP
Processing 1 images
image                      shape: (142, 119, 3)          min:    74.00000  max:
199.00000  uint8
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:
86.10000  float64
image_metas                 shape: (1, 15)                  min:     0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



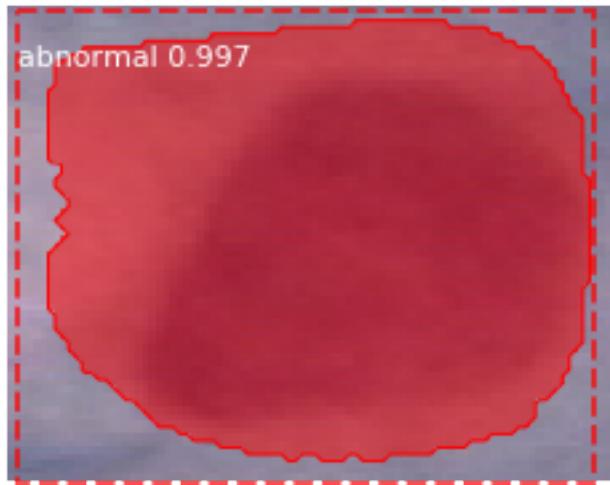
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153697342-153697366-001.BMP  
Processing 1 images  
image shape: (100, 114, 3) min: 52.00000 max:  
203.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
91.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



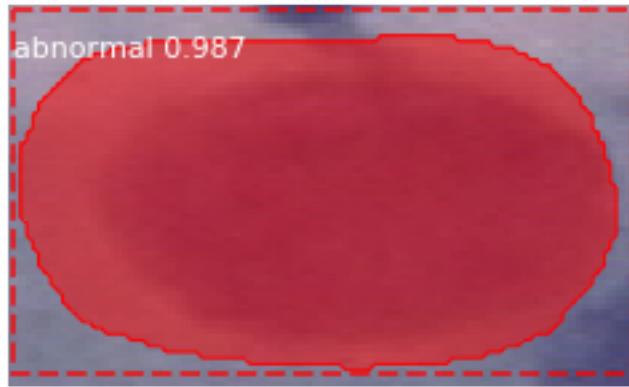
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153697342-153697366-002.BMP  
Processing 1 images  
image shape: (94, 107, 3) min: 79.00000 max:  
201.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
92.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153697342-153697375-001.BMP  
Processing 1 images  
image shape: (70, 90, 3) min: 64.00000 max:  
191.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
86.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153697342-153697375-002.BMP  
Processing 1 images  
image                      shape: (64, 105, 3)          min:   65.00000  max:  
183.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
78.10000  float64  
image_metas                 shape: (1, 15)            min:    0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



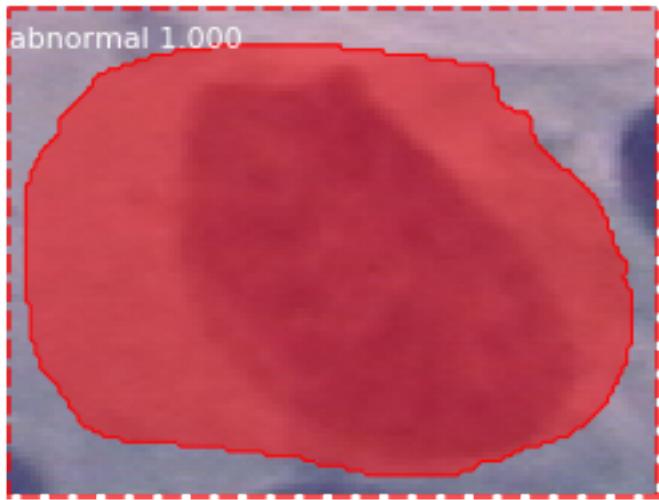
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153697342-153697375-003.BMP  
Processing 1 images  
image shape: (70, 86, 3) min: 55.00000 max:  
199.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
90.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



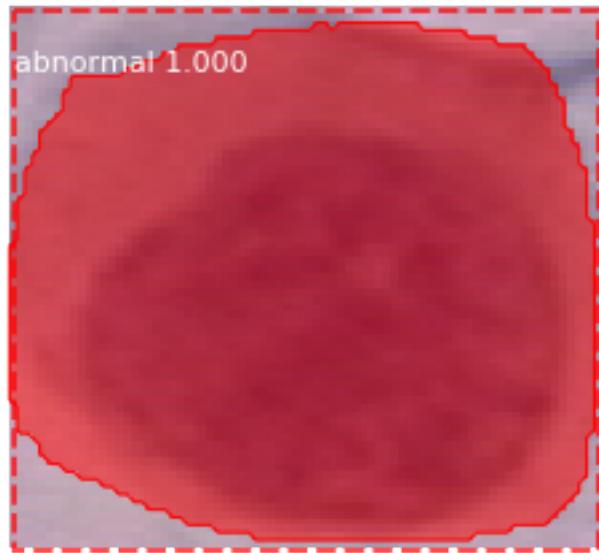
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153697342-153697384-001.BMP  
Processing 1 images  
image                      shape: (76, 93, 3)          min:  60.00000  max:  
189.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
84.10000  float64  
image_metas                 shape: (1, 15)            min:  0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)      min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



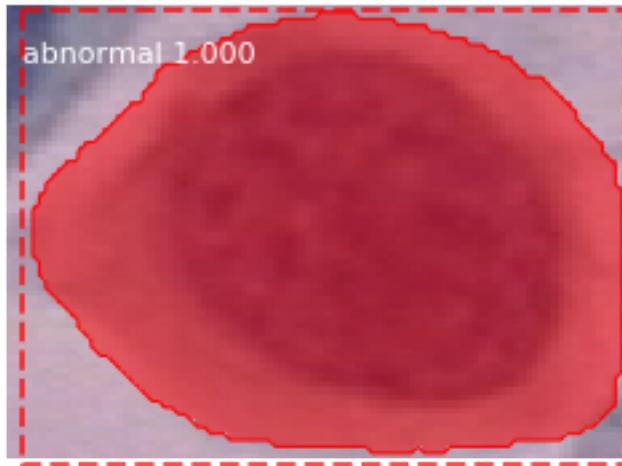
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153697342-153697384-002.BMP  
Processing 1 images  
image                      shape: (102, 136, 3)          min:   61.00000  max:  
203.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
91.10000  float64  
image_metas                 shape: (1, 15)                  min:    0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153698259-153698268-001.BMP  
Processing 1 images  
image                      shape: (71, 78, 3)          min:  52.00000  max:  
209.00000  uint8  
molded_images               shape: (1, 512, 512, 3)    min: -123.70000  max:  
103.10000  float64  
image_metas                 shape: (1, 15)            min:  0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)    min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



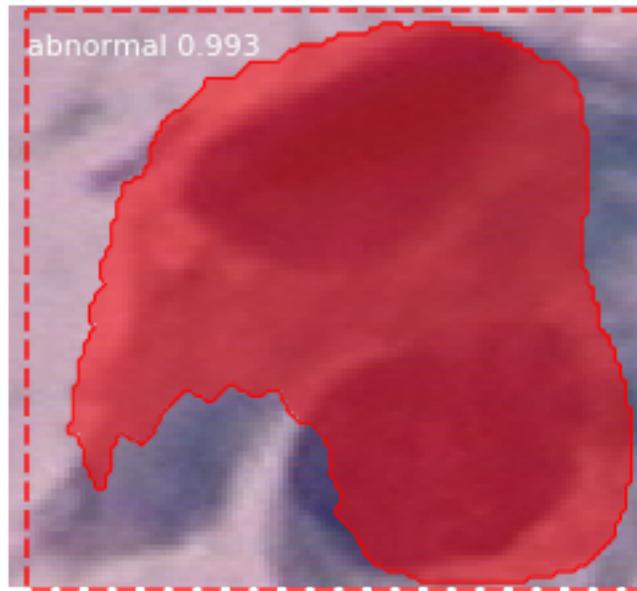
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153698259-153698268-002.BMP  
Processing 1 images  
image shape: (70, 95, 3) min: 54.00000 max:  
205.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
94.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153698259-153698268-003.BMP  
Processing 1 images  
image                      shape: (90, 104, 3)          min:  50.00000  max:  
213.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
102.10000  float64  
image_metas                 shape: (1, 15)                  min:  0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153701139-153701158-001.BMP  
Processing 1 images  
image shape: (106, 116, 3) min: 42.00000 max:  
218.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
99.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153701139-153701158-003.BMP  
Processing 1 images  
image shape: (76, 104, 3) min: 51.00000 max:  
213.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
96.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



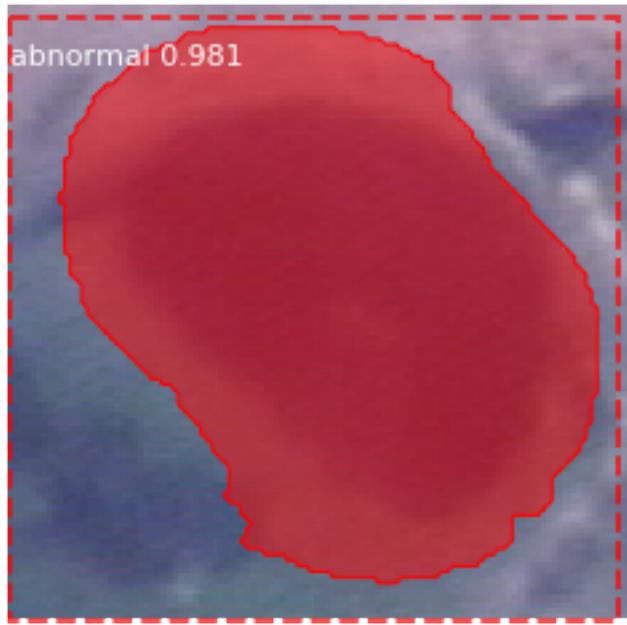
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153701139-153701158-004.BMP  
Processing 1 images  
image shape: (61, 71, 3) min: 48.00000 max:  
195.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
90.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



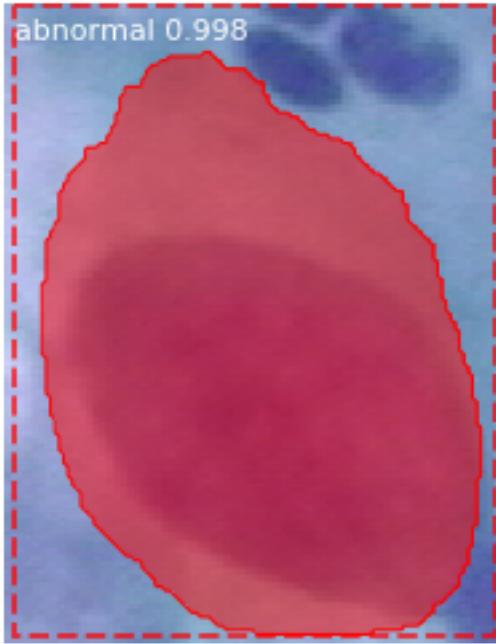
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153701139-153701158-005.BMP  
Processing 1 images  
image shape: (60, 110, 3) min: 50.00000 max:  
181.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
76.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



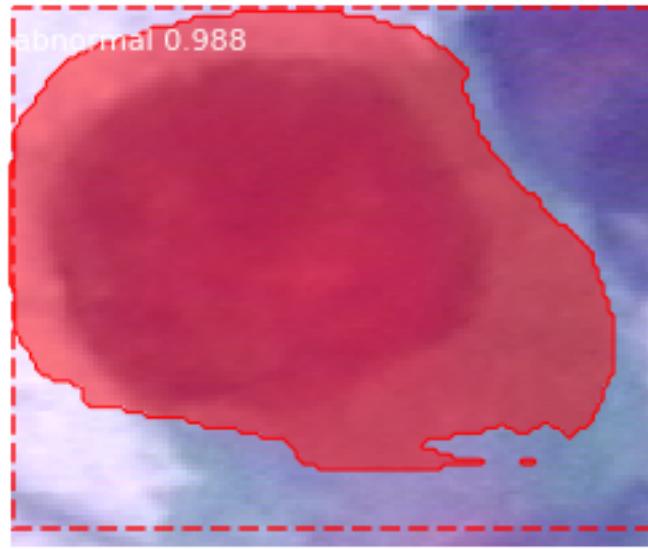
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153701622-153701650-001.BMP
Processing 1 images
image                      shape: (108, 110, 3)          min:    56.00000  max:
196.00000  uint8
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:
90.10000  float64
image_metas                 shape: (1, 15)                  min:     0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)          min:   -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



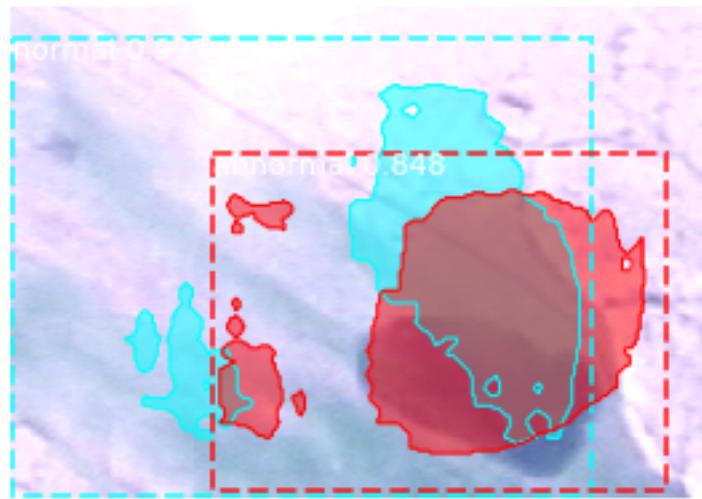
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153829664-153829678-001.BMP
Processing 1 images
image                      shape: (147, 114, 3)          min:   55.00000  max:
253.00000  uint8
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:
148.10000  float64
image_metas                 shape: (1, 15)                  min:    0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min:  -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



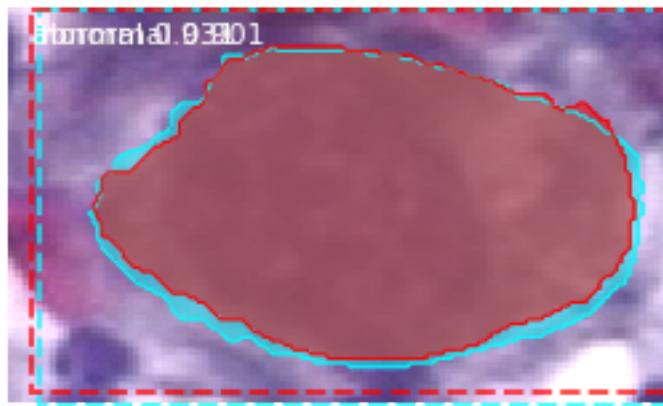
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153829700-153829711-001.BMP  
Processing 1 images  
image                      shape: (104, 123, 3)          min:   66.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)                  min:    0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



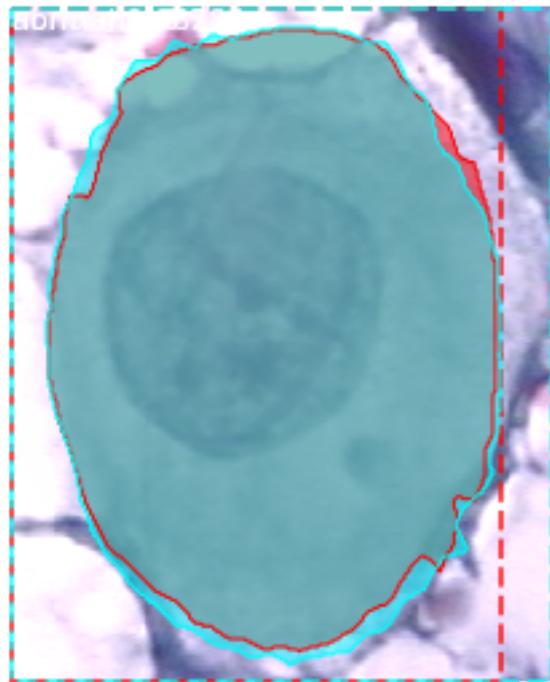
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153829745-153829763-001.BMP  
Processing 1 images  
image shape: (196, 278, 3) min: 82.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153915230-153915252-001.BMP  
Processing 1 images  
image shape: (91, 152, 3) min: 50.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```

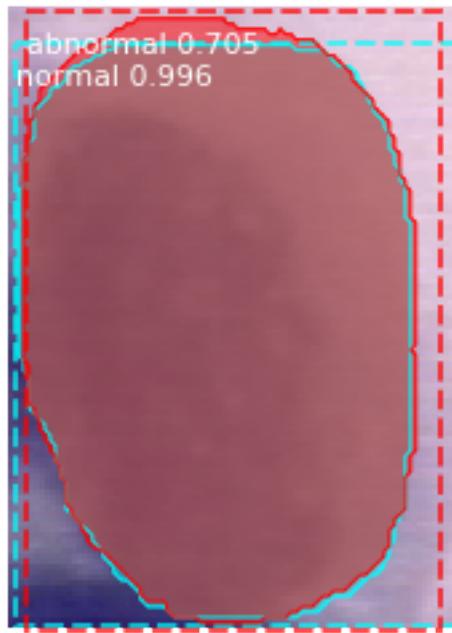


```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153916675-153916684-001.BMP  
Processing 1 images  
image shape: (260, 210, 3) min: 51.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```

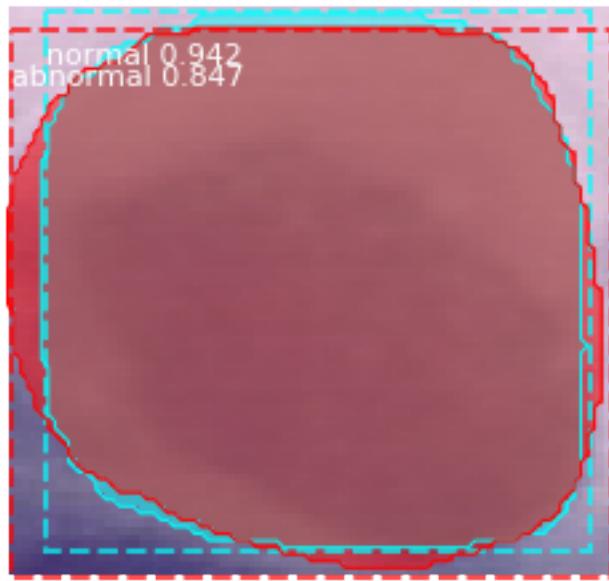


```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/204870815-204870836-001.BMP  
Processing 1 images  
image shape: (117, 84, 3) min: 30.00000 max:  
239.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
128.10000 float64
```

```
image_metas           shape: (1, 15)           min: 0.00000 max:  
512.00000 float64  
anchors              shape: (1, 65472, 4)      min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



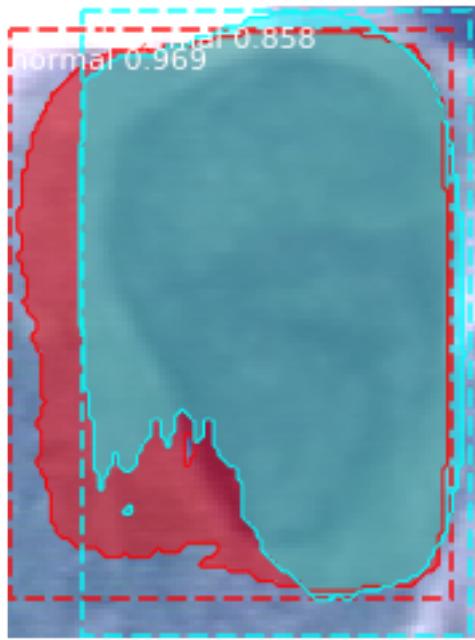
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/204870815-204870836-002.BMP  
Processing 1 images  
image                  shape: (83, 89, 3)           min: 42.00000 max:  
234.00000 uint8  
molded_images          shape: (1, 512, 512, 3)      min: -123.70000 max:  
128.10000 float64  
image_metas            shape: (1, 15)           min: 0.00000 max:  
512.00000 float64  
anchors              shape: (1, 65472, 4)      min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/204870892-204870902-001.BMP  
Processing 1 images  
image                      shape: (96, 94, 3)          min:    6.00000  max:  
162.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
57.10000  float64  
image_metas                 shape: (1, 15)            min:    0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



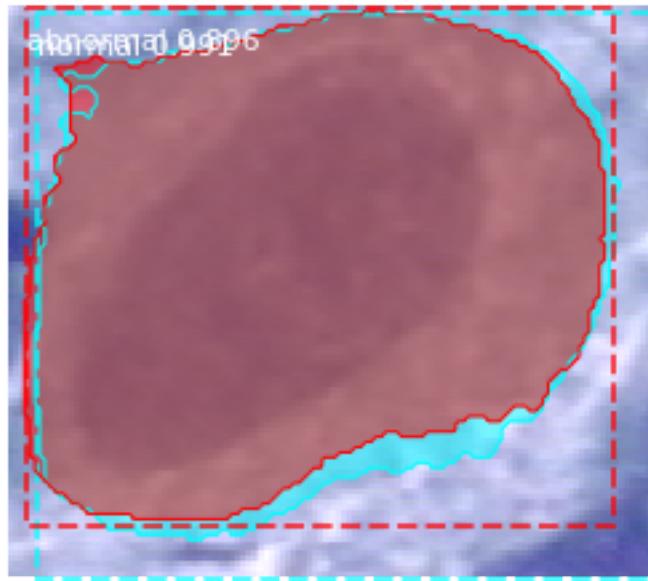
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/204870892-204870910-001.BMP  
Processing 1 images  
image shape: (132, 98, 3) min: 22.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



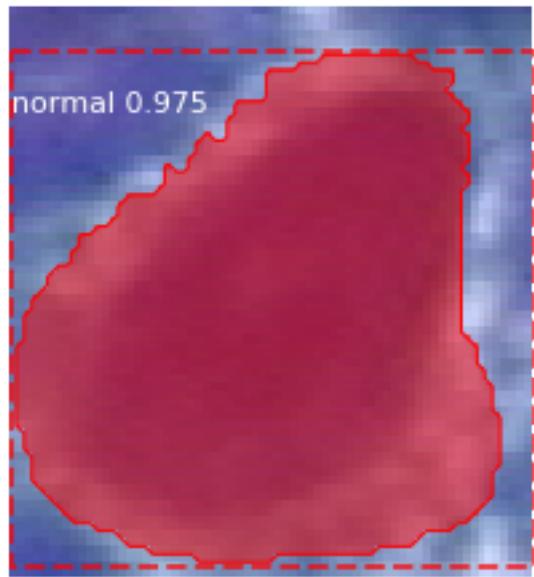
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153828952-153828970-001.BMP  
Processing 1 images  
image shape: (90, 83, 3) min: 34.00000 max:  
253.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
147.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



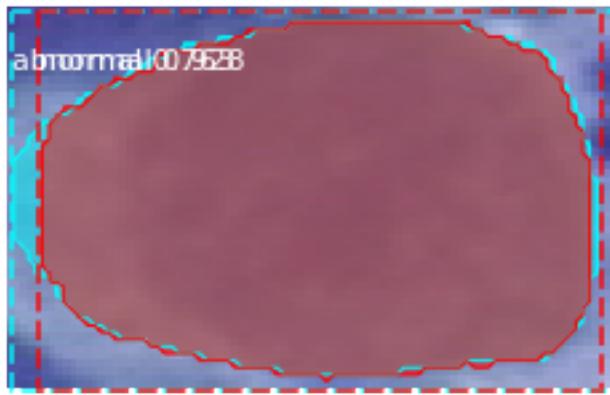
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153828877-153828902-002.BMP  
Processing 1 images  
image shape: (111, 125, 3) min: 55.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



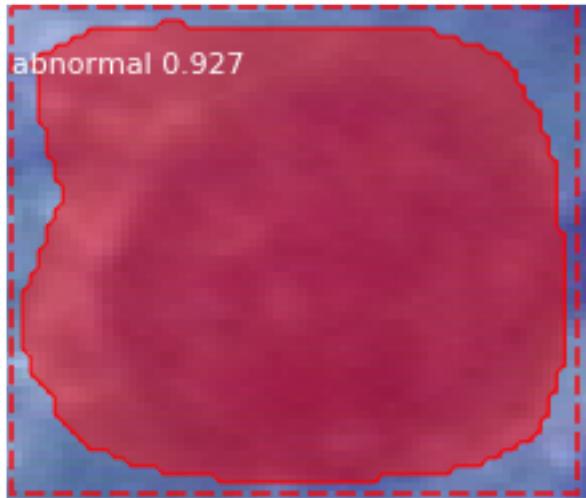
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153828952-153828980-001.BMP
Processing 1 images
image                      shape: (73, 67, 3)          min:   48.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:
150.10000  float64
image_metas                 shape: (1, 15)            min:     0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:
1.05188  float32
1
Predicted class :normal Actual class :abnormal
```



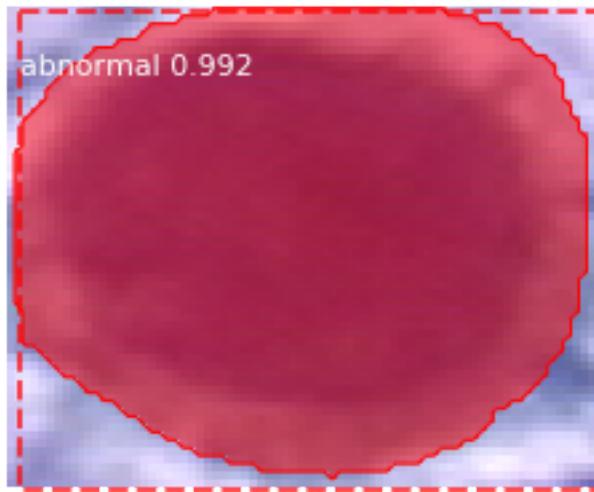
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153828952-153829000-001.BMP
Processing 1 images
image                      shape: (54, 86, 3)          min:  52.00000  max:
226.00000  uint8
molded_images               shape: (1, 512, 512, 3)    min: -123.70000  max:
121.10000  float64
image_metas                 shape: (1, 15)            min:  0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)      min: -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



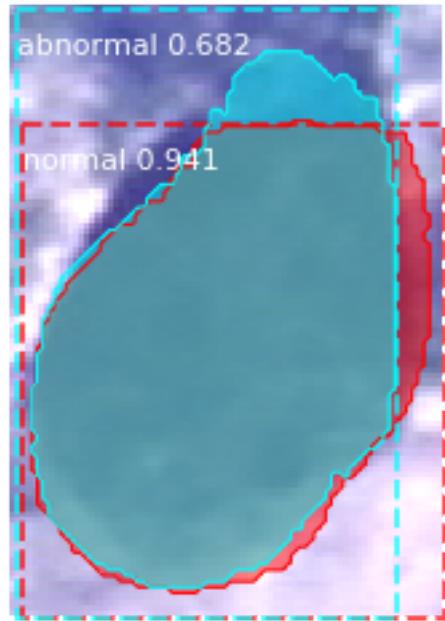
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153828952-153829000-002.BMP  
Processing 1 images  
image                      shape: (61, 72, 3)          min:  54.00000  max:  
228.00000  uint8  
molded_images              shape: (1, 512, 512, 3)      min: -123.70000  max:  
123.10000  float64  
image_metas                shape: (1, 15)            min:  0.00000  max:  
512.00000  float64  
anchors                    shape: (1, 65472, 4)      min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153828952-153829000-003.BMP  
Processing 1 images  
image                      shape: (61, 75, 3)          min:    54.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)            min:     0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153828952-153829005-001.BMP  
Processing 1 images  
image                      shape: (106, 75, 3)          min:  50.00000  max:  
255.00000  uint8  
molded_images              shape: (1, 512, 512, 3)      min: -123.70000  max:  
151.10000  float64  
image_metas                shape: (1, 15)                  min:  0.00000  max:  
512.00000  float64  
anchors                    shape: (1, 65472, 4)        min: -0.17712  max:  
1.05188  float32  
1  
Predicted class :normal Actual class :abnormal
```



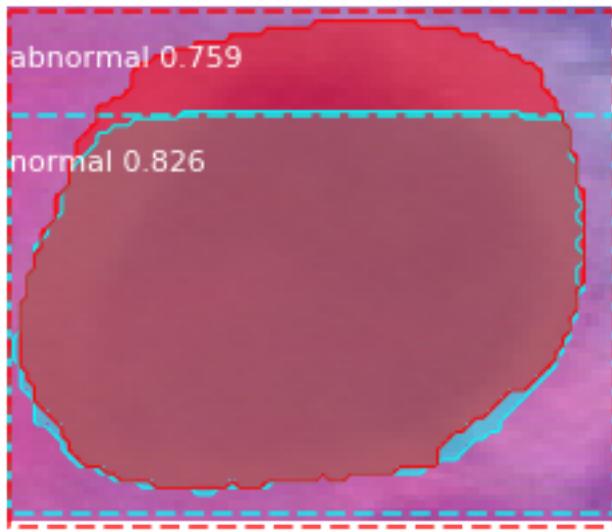
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153828952-153829005-002.BMP  
Processing 1 images  
image shape: (91, 78, 3) min: 47.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153828952-153829009-002.BMP
Processing 1 images
image                      shape: (71, 102, 3)          min:   46.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:
151.10000  float64
image_metas                 shape: (1, 15)                min:     0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153829063-153829073-001.BMP  
Processing 1 images  
image shape: (74, 87, 3) min: 54.00000 max:  
212.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
104.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



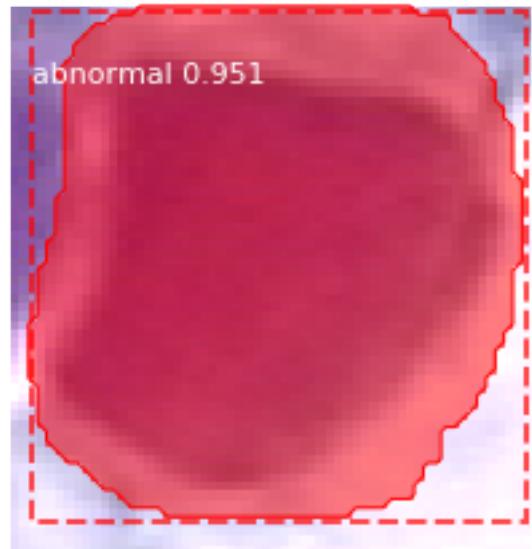
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153829063-153829073-002.BMP  
Processing 1 images  
image                      shape: (51, 105, 3)          min:  110.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)                  min:     0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
1  
Predicted class :normal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153829063-153829078-001.BMP  
Processing 1 images  
image shape: (78, 88, 3) min: 52.00000 max:  
215.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
103.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



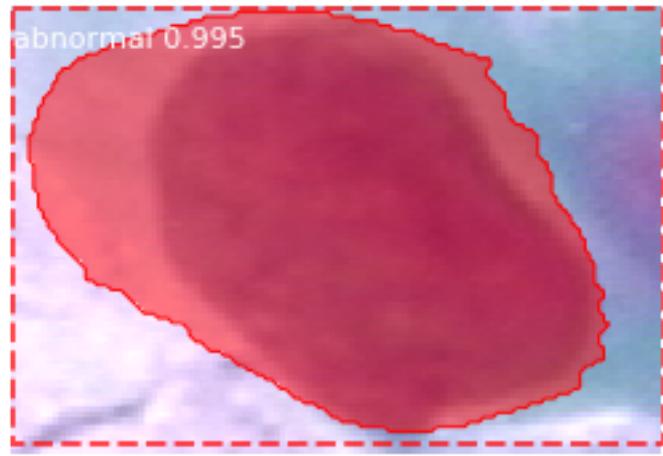
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153829063-153829086-001.BMP  
Processing 1 images  
image shape: (61, 58, 3) min: 50.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



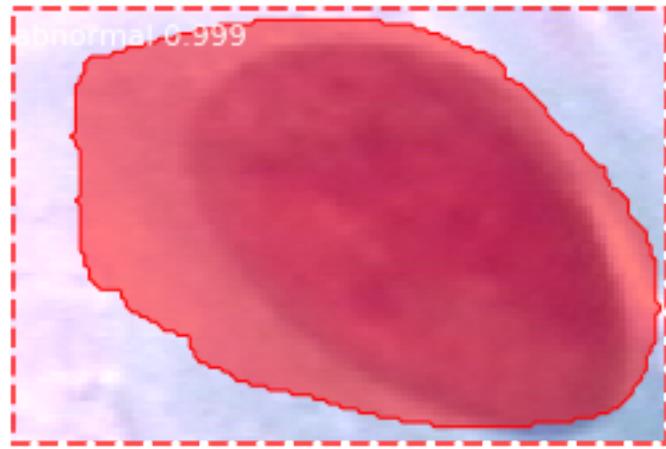
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153829745-153829768-001.BMP  
Processing 1 images  
image shape: (257, 81, 3) min: 56.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



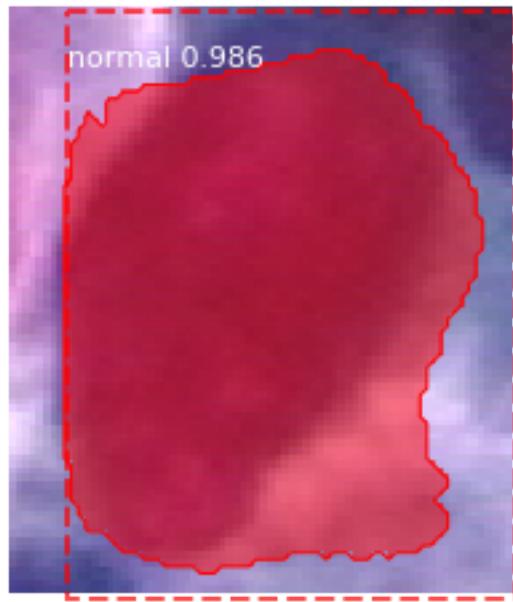
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153829745-153829768-002.BMP  
Processing 1 images  
image shape: (95, 138, 3) min: 62.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153829745-153829768-003.BMP  
Processing 1 images  
image shape: (95, 143, 3) min: 70.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



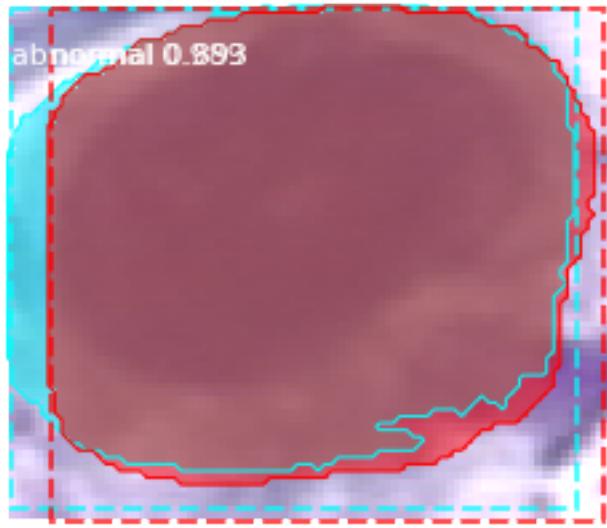
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153830261-153830340-001.BMP  
Processing 1 images  
image                      shape: (84, 72, 3)          min:  40.00000  max:  
255.00000  uint8  
molded_images              shape: (1, 512, 512, 3)      min: -123.70000  max:  
151.10000  float64  
image_metas                shape: (1, 15)            min:    0.00000  max:  
512.00000  float64  
anchors                    shape: (1, 65472, 4)      min: -0.17712  max:  
1.05188  float32  
1  
Predicted class :normal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153830261-153830340-002.BMP  
Processing 1 images  
image                      shape: (75, 69, 3)          min:  44.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)    min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)            min:  0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)    min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



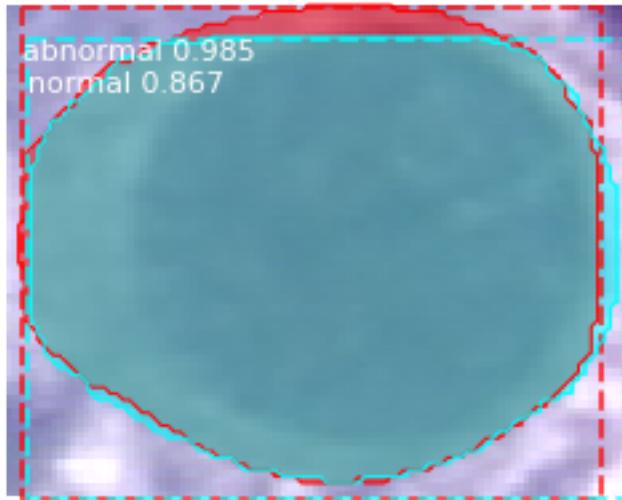
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153830680-153830827-001.BMP  
Processing 1 images  
image                      shape: (75, 89, 3)          min:  54.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)            min:  0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)      min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



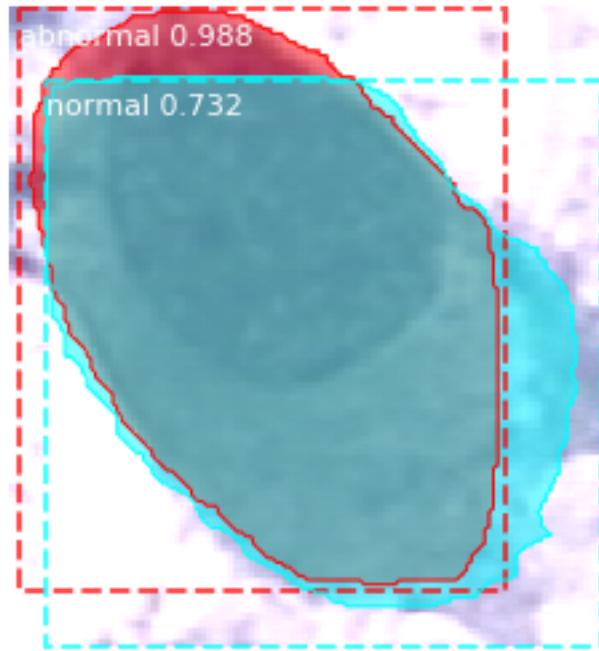
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153830680-153830827-002.BMP  
Processing 1 images  
image shape: (62, 90, 3) min: 52.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



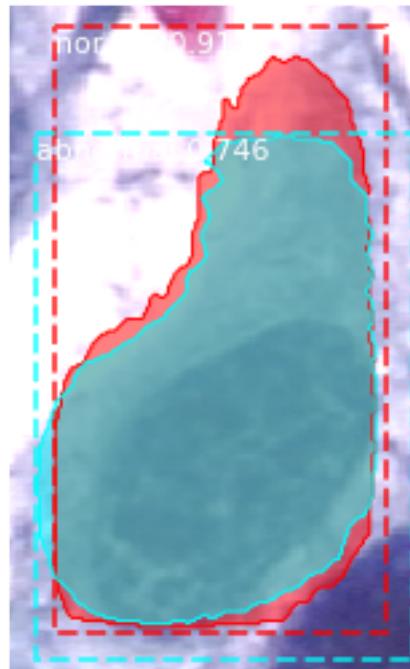
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153830680-153830827-003.BMP  
Processing 1 images  
image shape: (77, 97, 3) min: 54.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



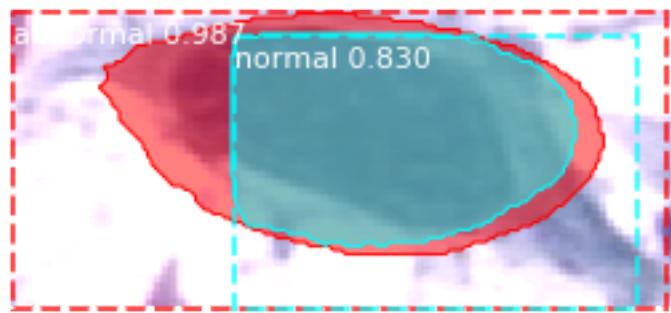
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153831352-153831372-001.BMP  
Processing 1 images  
image                      shape: (146, 137, 3)          min:   60.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)                  min:     0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



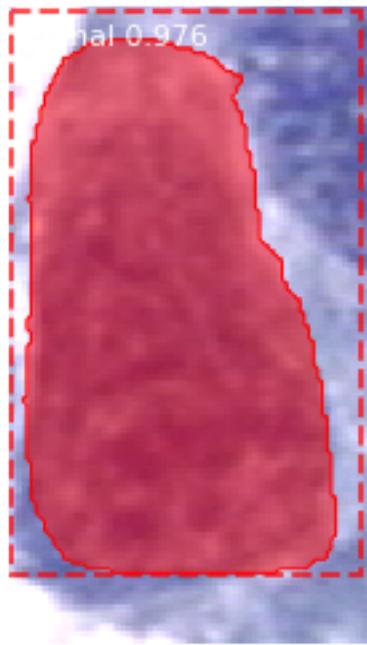
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153831352-153831372-002.BMP
Processing 1 images
image                      shape: (218, 132, 3)          min:  51.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:
151.10000  float64
image_metas                 shape: (1, 15)                  min:  0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:
1.05188  float32
1
Predicted class :normal Actual class :abnormal
```



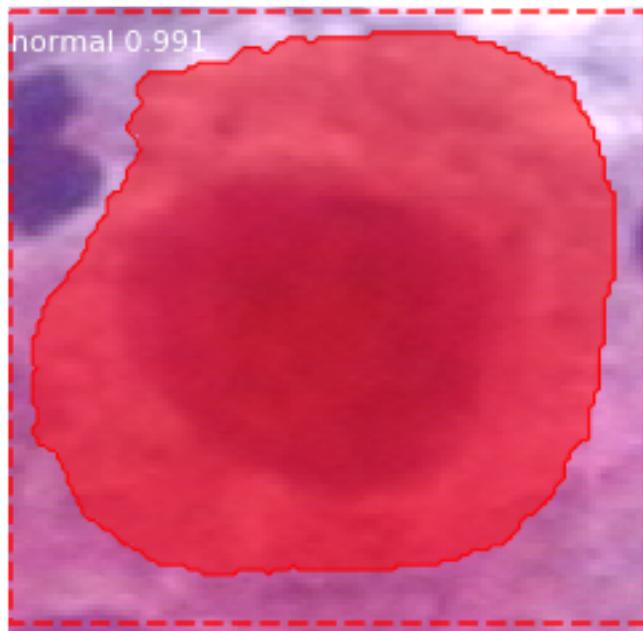
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153831352-153831372-003.BMP  
Processing 1 images  
image                      shape: (74, 166, 3)          min:  58.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)                min:  0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)      min: -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



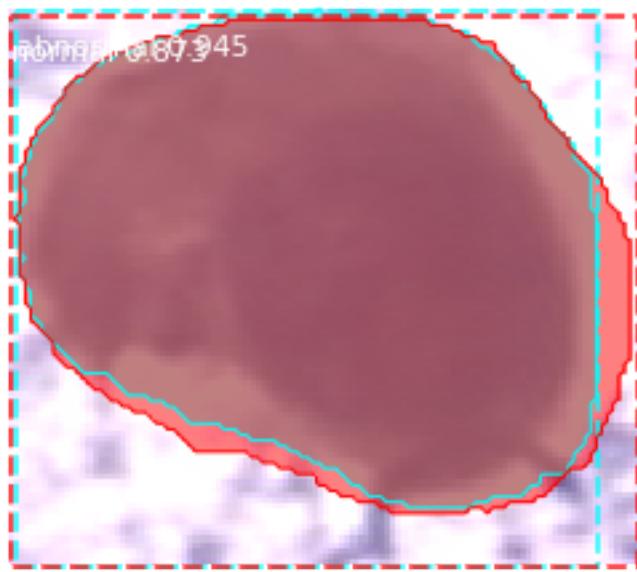
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153831352-153831372-004.BMP
Processing 1 images
image                      shape: (142, 80, 3)          min:   66.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:
151.10000  float64
image_metas                 shape: (1, 15)                  min:    0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:
1.05188  float32
1
Predicted class :normal Actual class :abnormal
```



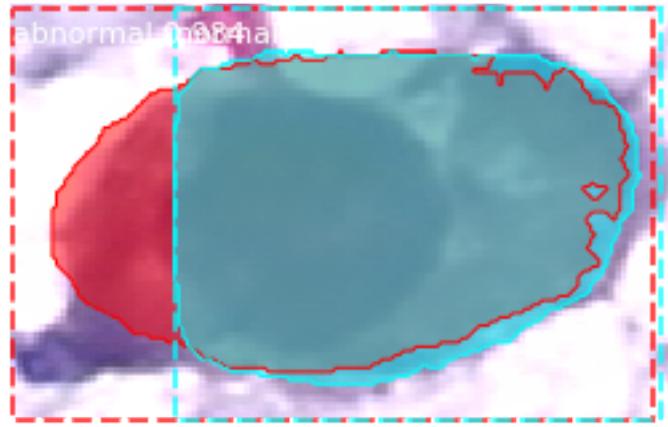
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153915316-153915330-003.BMP  
Processing 1 images  
image                      shape: (126, 128, 3)          min:  40.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)                  min:  0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:  
1.05188  float32  
1  
Predicted class :normal Actual class :abnormal
```



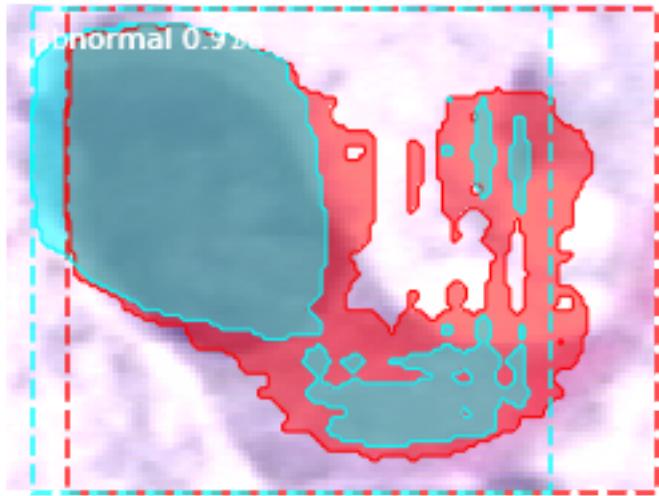
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153915432-153915441-002.BMP
Processing 1 images
image                      shape: (99, 113, 3)          min:   60.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:
151.10000  float64
image_metas                 shape: (1, 15)                min:     0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



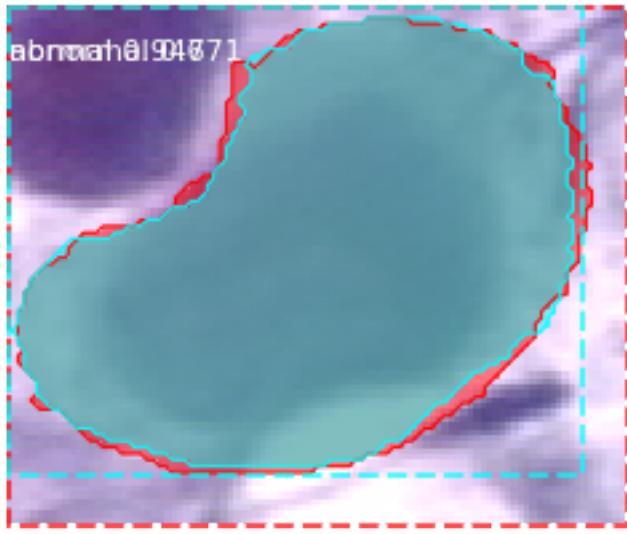
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153915432-153915472-001.BMP  
Processing 1 images  
image shape: (98, 157, 3) min: 48.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



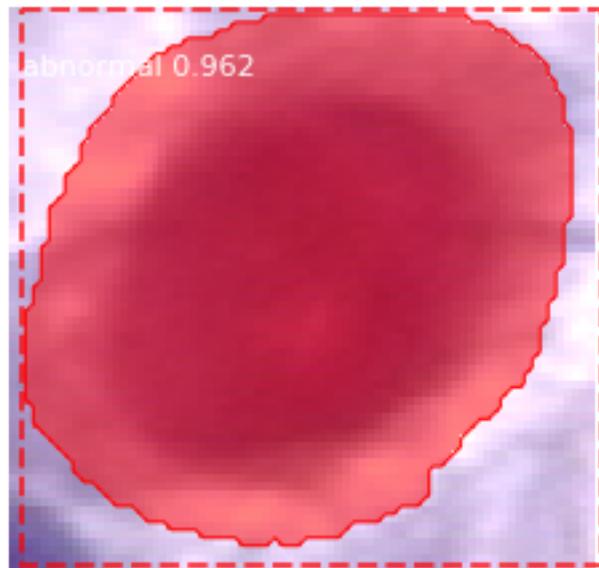
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153915634-153915665-001.BMP  
Processing 1 images  
image                      shape: (100, 134, 3)          min:   62.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)        min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)                  min:    0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)        min: -0.17712  max:  
1.05188  float32  
1  
Predicted class :normal Actual class :abnormal
```



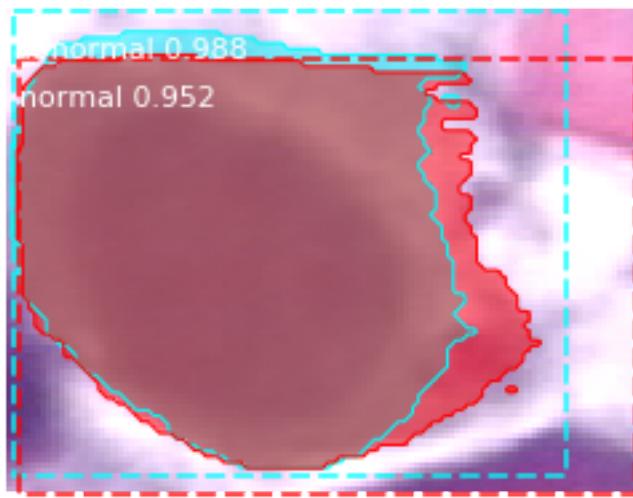
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153915634-153915665-002.BMP  
Processing 1 images  
image                      shape: (82, 98, 3)          min:   46.00000  max:  
255.00000  uint8  
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:  
151.10000  float64  
image_metas                 shape: (1, 15)            min:     0.00000  max:  
512.00000  float64  
anchors                     shape: (1, 65472, 4)      min:   -0.17712  max:  
1.05188  float32  
1  
Predicted class :normal Actual class :abnormal
```



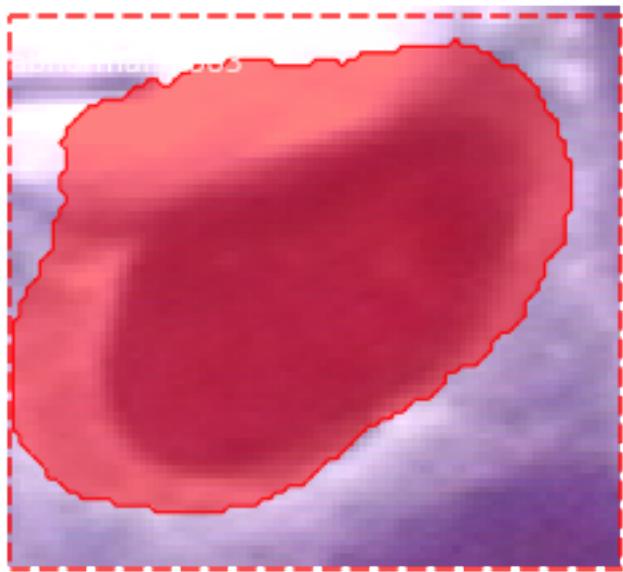
```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153915634-153915665-003.BMP
Processing 1 images
image                      shape: (71, 74, 3)          min:   48.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:
151.10000  float64
image_metas                 shape: (1, 15)            min:    0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)      min: -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



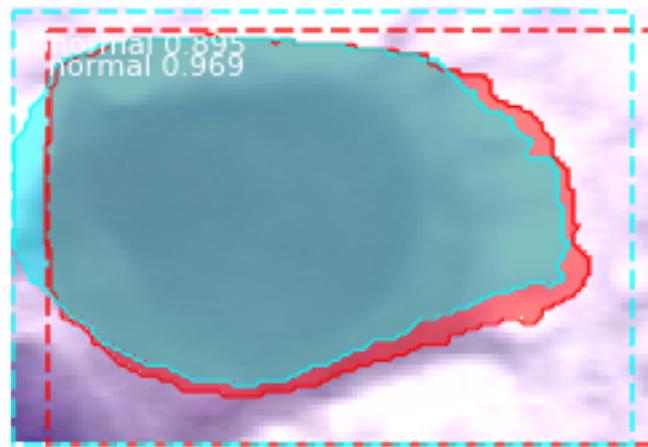
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153915634-153915665-005.BMP  
Processing 1 images  
image                      shape: (83, 108, 3)          min:   53.00000  max:  
255.00000  uint8  
molded_images              shape: (1, 512, 512, 3)      min: -123.70000  max:  
151.10000  float64  
image_metas                shape: (1, 15)                 min:    0.00000  max:  
512.00000  float64  
anchors                    shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
2  
Predicted class :abnormal Actual class :abnormal
```



```
filename:/content/drive/My
Drive/bin_cervic_test/abnormal/153915634-153915665-006.BMP
Processing 1 images
image                      shape: (84, 92, 3)          min:   50.00000  max:
255.00000  uint8
molded_images               shape: (1, 512, 512, 3)      min: -123.70000  max:
151.10000  float64
image_metas                 shape: (1, 15)            min:    0.00000  max:
512.00000  float64
anchors                     shape: (1, 65472, 4)        min:   -0.17712  max:
1.05188  float32
2
Predicted class :abnormal Actual class :abnormal
```



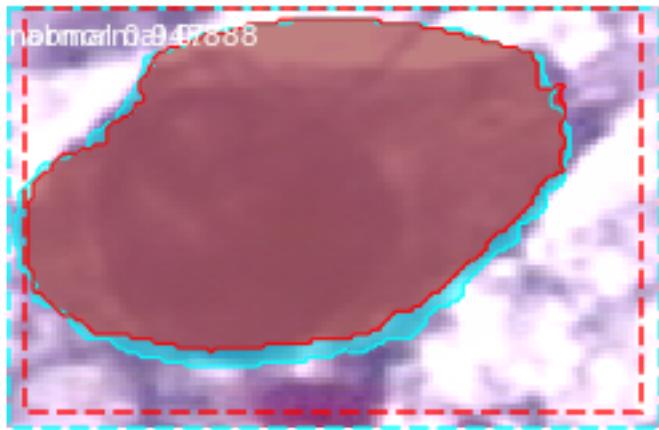
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153915634-153915665-007.BMP  
Processing 1 images  
image           shape: (84, 124, 3)           min:  56.00000  max:  
255.00000  uint8  
molded_images   shape: (1, 512, 512, 3)       min: -123.70000  max:  
151.10000  float64  
image_metas     shape: (1, 15)                 min:  0.00000  max:  
512.00000  float64  
anchors         shape: (1, 65472, 4)           min: -0.17712  max:  
1.05188  float32  
1  
Predicted class :normal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153915726-153915736-001.BMP  
Processing 1 images  
image shape: (95, 90, 3) min: 43.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



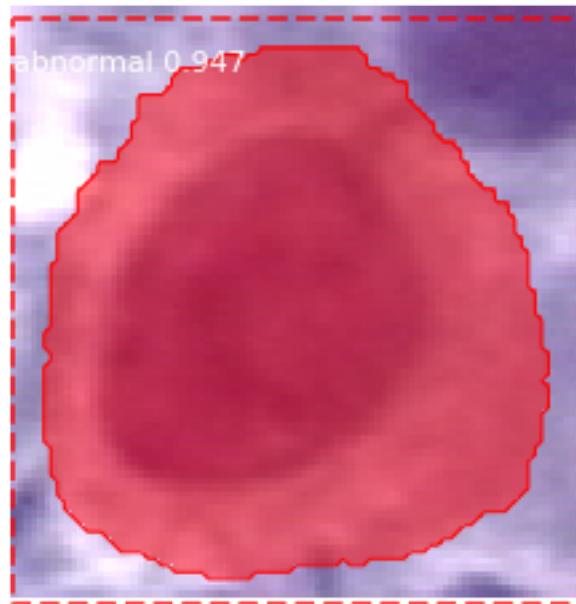
```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153915726-153915774-001.BMP  
Processing 1 images  
image shape: (91, 141, 3) min: 49.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153916001-153916020-001.BMP  
Processing 1 images  
image                      shape: (76, 118, 3)          min:   64.00000  max:  
255.00000  uint8  
molded_images              shape: (1, 512, 512, 3)      min: -123.70000  max:  
151.10000  float64  
image_metas                shape: (1, 15)                 min:     0.00000  max:  
512.00000  float64  
anchors                    shape: (1, 65472, 4)        min:   -0.17712  max:  
1.05188  float32  
1  
Predicted class :normal Actual class :abnormal
```

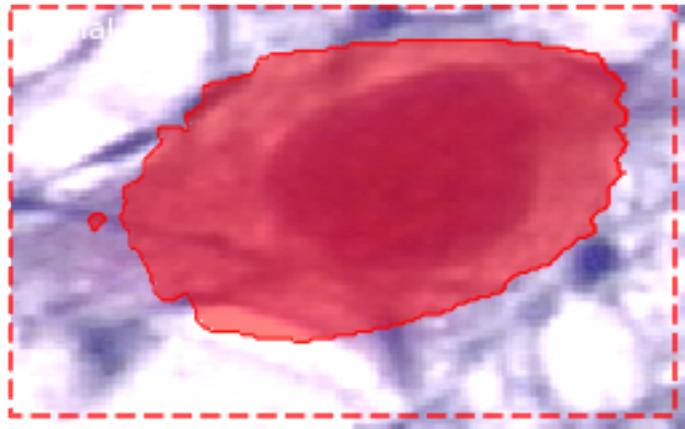


```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153916001-153916020-003.BMP  
Processing 1 images  
image shape: (88, 84, 3) min: 59.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64  
image_metas shape: (1, 15) min: 0.00000 max:  
512.00000 float64  
anchors shape: (1, 65472, 4) min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```

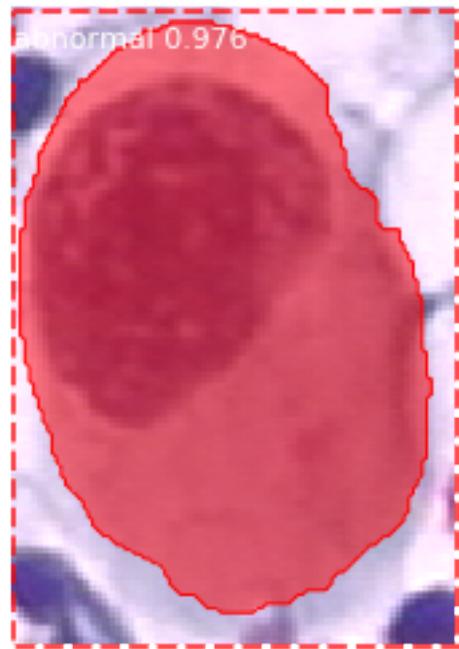


```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153916114-153916129-002.BMP  
Processing 1 images  
image shape: (123, 195, 3) min: 50.00000 max:  
255.00000 uint8  
molded_images shape: (1, 512, 512, 3) min: -123.70000 max:  
151.10000 float64
```

```
image_metas           shape: (1, 15)           min: 0.00000 max:  
512.00000 float64  
anchors              shape: (1, 65472, 4)       min: -0.17712 max:  
1.05188 float32  
1  
Predicted class :normal Actual class :abnormal
```



```
filename:/content/drive/My  
Drive/bin_cervic_test/abnormal/153916922-153916963-001.BMP  
Processing 1 images  
image                  shape: (141, 98, 3)           min: 45.00000 max:  
255.00000 uint8  
molded_images          shape: (1, 512, 512, 3)       min: -123.70000 max:  
151.10000 float64  
image_metas            shape: (1, 15)           min: 0.00000 max:  
512.00000 float64  
anchors              shape: (1, 65472, 4)       min: -0.17712 max:  
1.05188 float32  
2  
Predicted class :abnormal Actual class :abnormal
```



Total no. of images in abnormal is 135
No. of images correctly classified is 95
Accuracy of class: abnormal is 70.37037037037037