```
Files

                                                  Args:
                                         0
                                                   path: the file path to the image
       uint8 numpy array with shape (img_height, img_width, 3)
  models
                                                  return np.array(Image.open(path))
  sample_data
  training_demo
  annotations
        label_map.pbtxt
                                              print('Running inference for {}... '.format(IMAGE_PATHS), end='')
       test.record
                                              image = cv2.imread(IMAGE_PATHS)
        train.record
                                              image_rgb = cv2.cvtColor(image, cv2.COLOR_BGR2RGB)
     exported_models
                                              image_expanded = np.expand_dims(image_rgb, axis=0)
     images
     # The input needs to be a tensor, convert it using `tf.convert_to_tensor`.
                                              input tensor = tf.convert to tensor(image)
          image18.jpg
                                              # The model expects a batch of images, so add an axis with `tf.newaxis`.
          image18.xml
                                              input_tensor = input_tensor[tf.newaxis, ...]
          image24.jpg
          image24.xml
                                             # input_tensor = np.expand_dims(image_np, 0)
                                             detections = detect_fn(input_tensor)
          image25.jpg
          image25.xml
                                             # All outputs are batches tensors.
          image39.jpg
                                             # Convert to numpy arrays, and take index [0] to remove the batch dimension.
                                             # We're only interested in the first num_detections.
          image39.xml
                                              num_detections = int(detections.pop('num_detections'))
     ▶ train
                                              detections = {key: value[0, :num detections].numpy()
     models
                                                            for key, value in detections.items()}
     my_ssd_resnet101_v1_fpn
                                              detections['num_detections'] = num_detections
       ▶ 📑 train
                                              # detection_classes should be ints.
          checkpoint
                                              detections['detection_classes'] = detections['detection_classes'].astype(np.int64)
          ckpt-1.data-00000-of-00...
          ckpt-1.index
                                              image_with_detections = image.copy()
          ckpt-2.data-00000-of-00...
                                              # SET MIN_SCORE_THRESH BASED ON YOU MINIMUM THRESHOLD FOR DETECTIONS
          ckpt-2.index
                                              viz_utils.visualize_boxes_and_labels_on_image_array(
          ckpt-3.data-00000-of-00...
                                                   image with detections,
          ckpt-3.index
                                                   detections['detection_boxes'],
                                                   detections['detection classes'],
          pipeline.config
                                                   detections['detection_scores'],
  category_index,

ssd_resnet101_v1_fpn_640x...

                                                   use_normalized_coordinates=True,
        ssd_resnet101_v1_fpn_640x6...
                                                   max boxes to draw=200,
                                                   min_score_thresh=0.5,
     export_tflite_graph_tf2.py
                                                   agnostic_mode=False)
     exporter_main_v2.py
                                              print('Done')
     generate_tfrecord.py
                                              # DISPLAYS OUTPUT IMAGE
     model_main_tf2.py
                                              cv2 imshow(image with detections)
                                              # CLOSES WINDOW ONCE KEY IS PRESSED
                                                                                                                 Executing (36s) Cell > _call_attribute() > error_handler() > __call__() >
```

+ Code + Text

4>

Q

 $\{x\}$