Documentation: print_object_info Function

Ramswroop Rathi

June 25, 2023

1 Function Description

The `print_object_info` function takes an image path as input, processes the image, and prints the number of objects detected and the total area of the objects.

2 Function Signature

```
def print_object_info(image_path:  str) -> None
```

3 Parameters

- `image_path` (str): The path to the input image file.

4 Dependencies

The function requires the following dependencies:

- `cv2`: OpenCV library for image processing.
- `numpy`: Numerical computing library for Python.

5 Example Usage

```
import cv2
import numpy as np

def print_object_info(image_path):
    # Function code goes here

# Example usage
image_path = 'c.jpeg'
print_object_info(image_path)
```

6 Algorithm

The `print_object_info` function follows the following algorithm:

1. Read the image using the `cv2.imread` function.
2. Convert the image to grayscale using the `cv2.cvtColor` function.
3. Perform thresholding on the grayscale image using the `cv2.threshold` function.
4. Dilate the thresholded image using the `cv2.dilate` function.
5. Find the contours in the dilated image using the `cv2.findContours` function.
6. Count the number of objects by calculating the length of the `contours` list.
7. Calculate the total area of the objects by iterating over the `contours` and using the `cv2.contourArea` function.
8. Print the number of objects and the total area.