

Active Contour Module:

The active contour model, also known as snakes, is a framework in computer vision and image processing that is used for contour detection and segmentation of objects within images. The active contour model is an energy minimization technique that evolves a curve or a contour to capture the boundaries of objects in an image.

The active contour model is particularly useful in scenarios where traditional image processing techniques, such as thresholding or edge detection, may not be sufficient. It can handle cases where objects have irregular shapes, and there are variations in intensity and contrast.

In the context of OpenCV, there isn't a specific "active contour module" as of my last knowledge update in September 2021. However, the functionality related to active contours can be found in the `cv2` module under the `cv2.segmentation` module. The `cv2.segmentation` module includes functions for image segmentation, and active contours are often used in this context.

One example is the `cv2.segmentation.createGrabCut` function, which uses an interactive segmentation technique based on graph cuts. While not exactly the same as the traditional active contour model, it's a related technique used for interactive image segmentation.