pyrMeanShiftFiltering(): [https://docs.opencv.org/3.4/d4/d86/group\_\_imgproc\_\_filter.html#ga9fabdce9543bd602445f5db3827e4cc0](https://docs.opencv.org/3.4/d4/d86/group__imgproc__filter.html" \l "ga9fabdce9543bd602445f5db3827e4cc0)

Experimental step:

Image acquisition

I use glob.glob to get image files and apply cv2.imread to read each image.

Image process

* Using filtering function to get rid of noisy.
* Extract RGB channel from picture and use 2g - r - b to get grayscale image.
* Applying thresholding to extract image, the white part in image is actually the green part in original image.

Evaluation

DSC: dice(A,B) = 2 \* | intersection(A,B) | / ( | A | + | B | )

[https://ww2.mathworks.cn/help/images/ref/dice.html#d122e44355](https://ww2.mathworks.cn/help/images/ref/dice.html" \l "d122e44355)

LoU: LoU(A,B) = | intersection(A,B) | / (| A | + | B | - | intersection(A,B) |)

<https://towardsdatascience.com/intersection-over-union-iou-calculation-for-evaluating-an-image-segmentation-model-8b22e2e84686>