

# Preprocess\_me

## Illumination

- I changed contrast (illumination) and preprocessed test\_img2 manually
  - light, clarity, vignette
  - Detection worked!
  - Just changing light also works.
  - Illumination change.
    - <https://stackoverflow.com/questions/33322488/how-to-change-image-illumination-in-opencv-python>
- Even after illumination, there are still some cases which failed
  - Reason can be mainly poor light and resolution
  - During heightmap generation

## Clarity

- Lowering `gamma` value in illumination part helped with some more images
- I tried adding clarity in images with

```
enhanced = cv2.detailEnhance(adjusted, sigma_s=10, sigma_r=0.15)
```

- It helped with some more images even with higher `gamma` values
- It fixed even for bad images
- But some other images had issue
- <https://stackoverflow.com/questions/33022578/improve-image-quality>
- <https://learnopencv.com/non-photorealistic-rendering-using-opencv-python-c/>

## Resolution

- Changed input resolution from (512, 512) to (224, 224)
  - It fixed
  - 246 correct, only 2 with issue

## Super Image Resolution

- Not helping with 2 failed cases

## Links

- <https://learnopencv.com/super-resolution-in-opencv/#Code>
- [https://github.com/opencv/opencv\\_contrib/tree/master/modules/dnn\\_superres](https://github.com/opencv/opencv_contrib/tree/master/modules/dnn_superres)