System overview

The model is built with openCV to detect blurry images.

Outline of algorithm

The main function of the model is using variance of laplacian. By calculating the value of the variance of laplacian, I set the threshold value to 100. When the threshold value is smaller than 100, the model decides the image is blurry. On the other hand, if the threshold value bigger than 100, this is a good image.

Intuition behind the algorithm

In order to determine if an image is blurry, I firstly think if the object in the image is blurry, the edge of the object is hard to detect. So there are a low number of high frequencies in the image, the image is blurry. And then I search for the some paper and find the variance of laplacian can do this work. So I use the variance of laplacian to decide the blurry image.

Summary of results

The model can classify 21 out of 25 blurry images correctly, which has 84% accuracy.

The model can classify 22 out of 25 good images correctly, which has 88% accuracy.

Potential future work

I will analyze the edge sharpness and thickness of the object contour.