CV report

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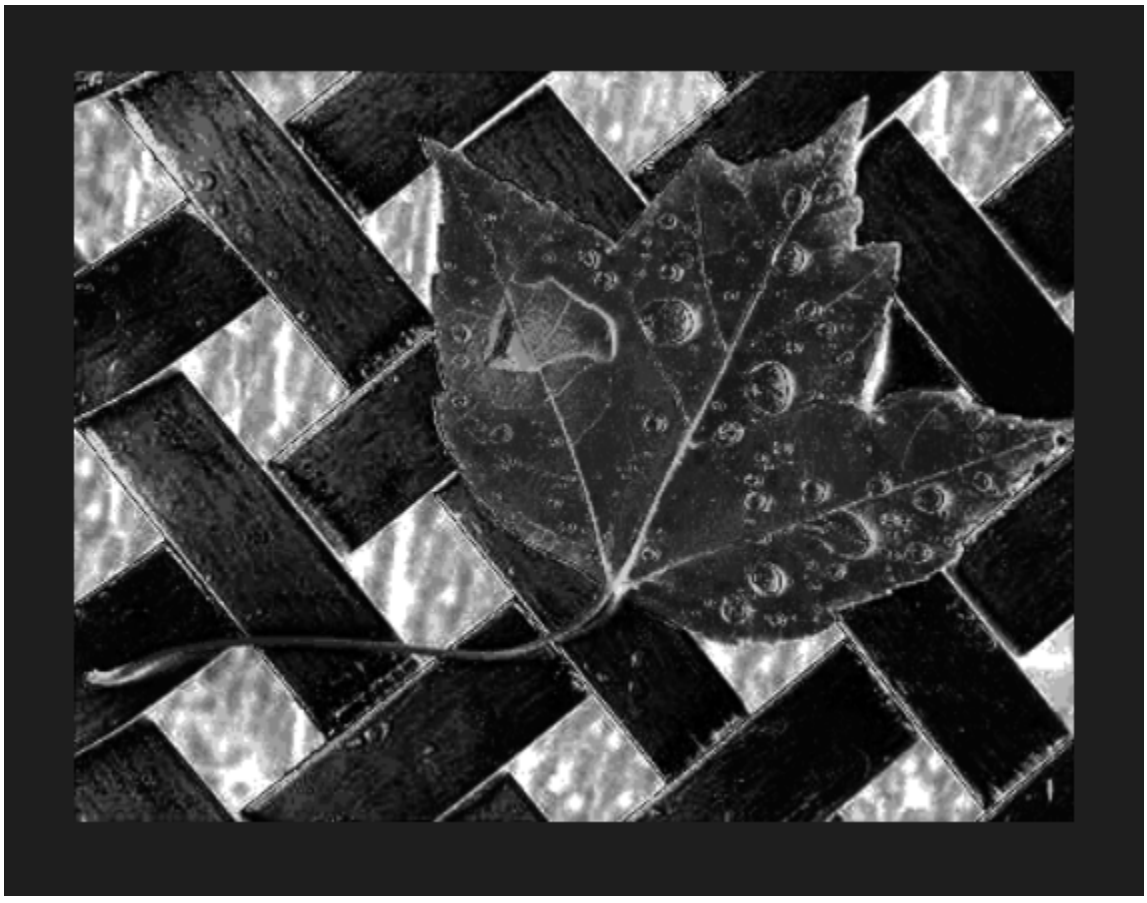
Question 1 -

Equation 3

Computed the kmeans for k=85, then calculated the colour probability by finding the frequency and diving by the total number of pixels. Then in order to find the saliency, have used implemented equation 3 of the given research paper. Finally scaled up the saliency value to form an image

Output Image -



Equation 5 -

Found the segmented image using the code given
segmented image -

Calculated the number of segments in the segmented image, then calculated the weights of all the segments and calculated the distance between each segment.
Then by using the given equation 5 in the paper found the saliency values.

Question 2 -

Read the given image, converted it to greyscale. Then by brute force found the TSS value for every threshold from 1-255. Found out the threshold for which TSS was minimum hence finding out the otsu threshold.

Otsu threshold for the given image - 119

Output Image -

Question 3 -

Captured the video, divided it into frames, then found the median frame, then subtracted this median frame from other frames and using threshold as 35 caculate the radius and centre of required circle. stichted all the frames and got the final video

Final video submitted in output folder.

one frame with circle image -