

HW2: Problem 3

Ian Dover

1 Read and display the image:

The rose on ice image:



Figure 1: Rose on ice image.

2 Part 1

2.1 K-means Clustering: 2 Clusters

Image split into two clusters:



Figure 2: Image with K-means Clustering: 2 Clusters.

2.2 K-means Clustering Histogram: 2 Clusters

Histogram of the image split into two clusters:

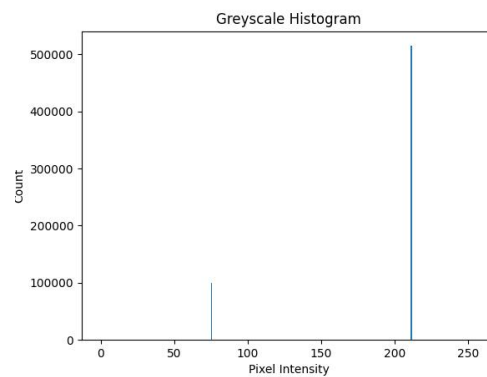


Figure 3: Histogram of image with K-means Clustering: 2 Clusters.

2.3 K-means Clustering: 3 Clusters

Image split into three clusters:

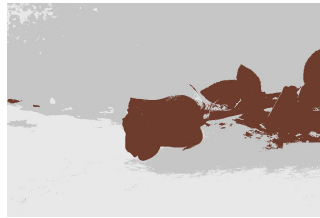


Figure 4: Image with K-means Clustering: 3 Clusters.

2.4 K-means Clustering Histogram: 3 Clusters

Histogram of the image split into three clusters:

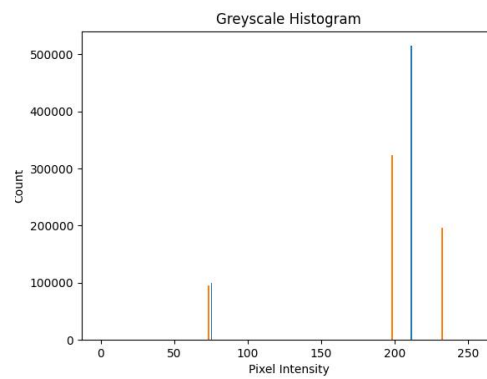


Figure 5: Histogram of image with K-means Clustering: 3 Clusters.

2.5 K-means Clustering: 4 Clusters

Image split into four clusters:



Figure 6: Image with K-means Clustering: 4 Clusters.

2.6 K-means Clustering Histogram: 4 Clusters

Histogram of the image split into four clusters:

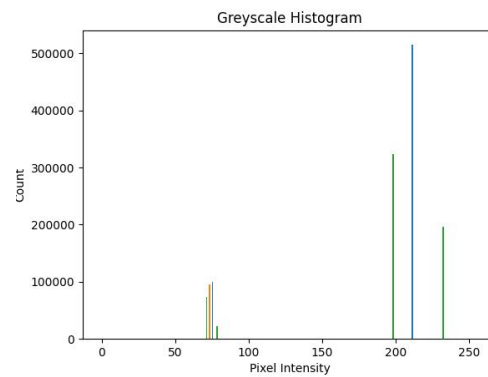


Figure 7: Histogram of image with K-means Clustering: 4 Clusters.