Software Assignment - Image Compression Using Truncated SVD

EE25Btech11063 - Y. Vejith

November 9, 2025

Tables

1 globe.jpg

original image

Figure 0: Given image

Name	Value of k	Frobenius norm
globe_10	10	15748.232558
globe_50	50	6813.587061
globe_200	200	6712.990925
globe_500	500	5965.878649
globe_830	830	5507.882616

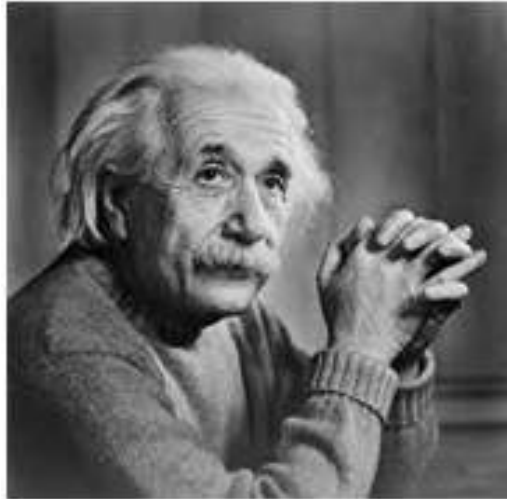Table 0: Relation between k and frobenius norm

2 einstein.jpg

original image

Figure 0: Given image

Name	Value of k	Frobenius norm
greyscale10	10	8548.727680
greyscale100	100	5549.823559
greyscale500	500	4656.995356
greyscale1000	1000	4503.574645
greyscale1024	1024	4414.255277

Table 0: Relation between k and frobenius norm
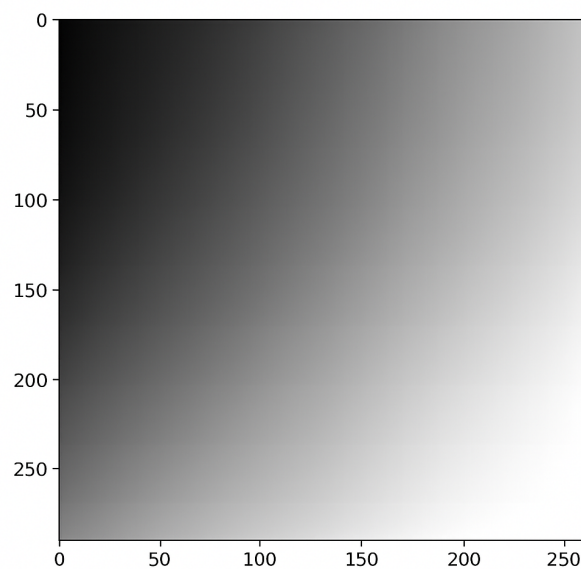
3 greyscale.png

original image

Figure 0: Given greyscale image

Name	Value of k	Frobenius norm
greyscale10	10	8548.727680
greyscale100	100	5549.823559
greyscale500	500	4656.995356
greyscale1000	1000	4503.574645
greyscale1024	1024	4414.255277

k

Table 0: Relation between k and frobenius norm