

Software Assignment-Image Compression Using Truncated SVD

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Einstein

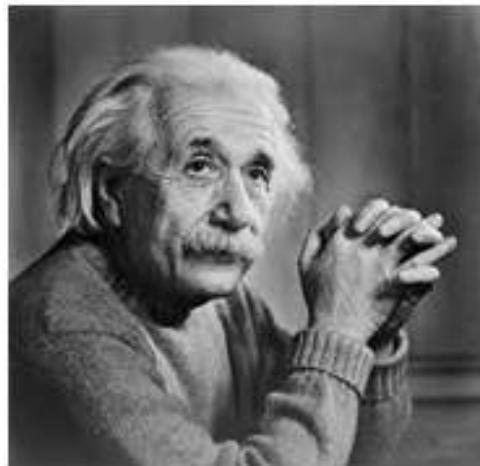


Fig. 0: Original image

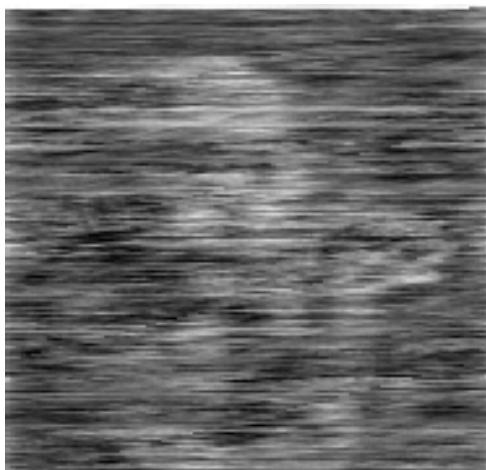


Fig. 0: Image at $k=10$

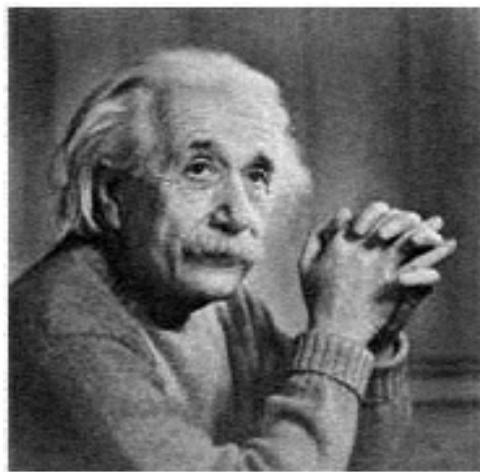


Fig. 0: Image at k=100

Name	Value of k	Frobenius norm
einstein_10	10	8061.238837
einstein_50	50	3767.087054
einstein_100	100	1365.972045
einstein_150	150	402.006749
einstein_180	180	42.358696

TABLE 0: Relation between k and frobenius norm



Fig. 0: Original Image

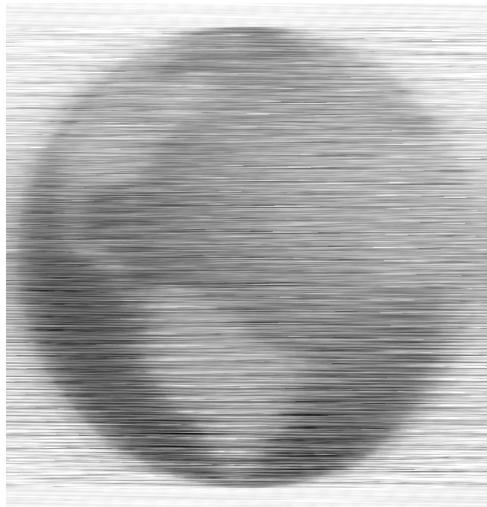


Fig. 0: Image at $k=10$



Fig. 0: Image at k=500

Error with different k values

Name	Value of k	Frobenius norm
globe_10	10	32728.746414
globe_100	100	9448.077475
globe_500	500	1496.871018
globe_800	800	32.221910

TABLE 0: Relation between k and frobenius norm

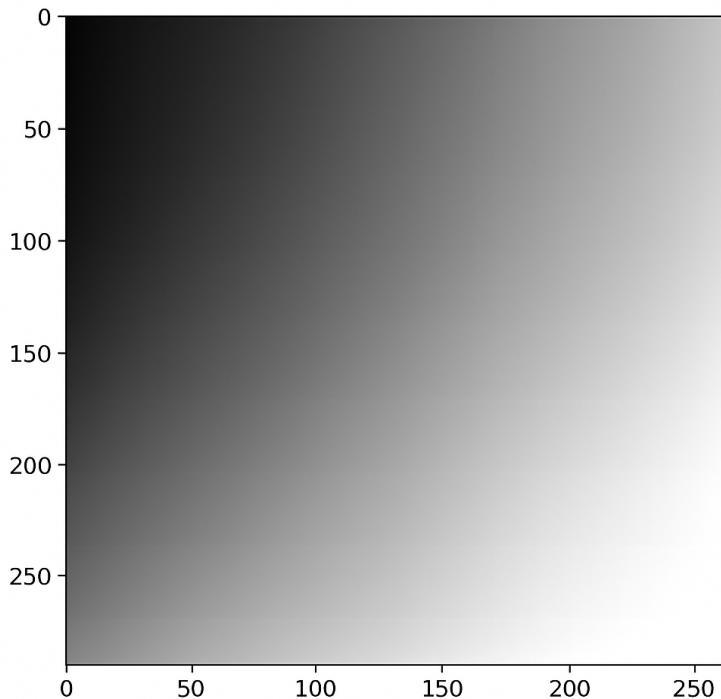


Fig. 0: Original Image

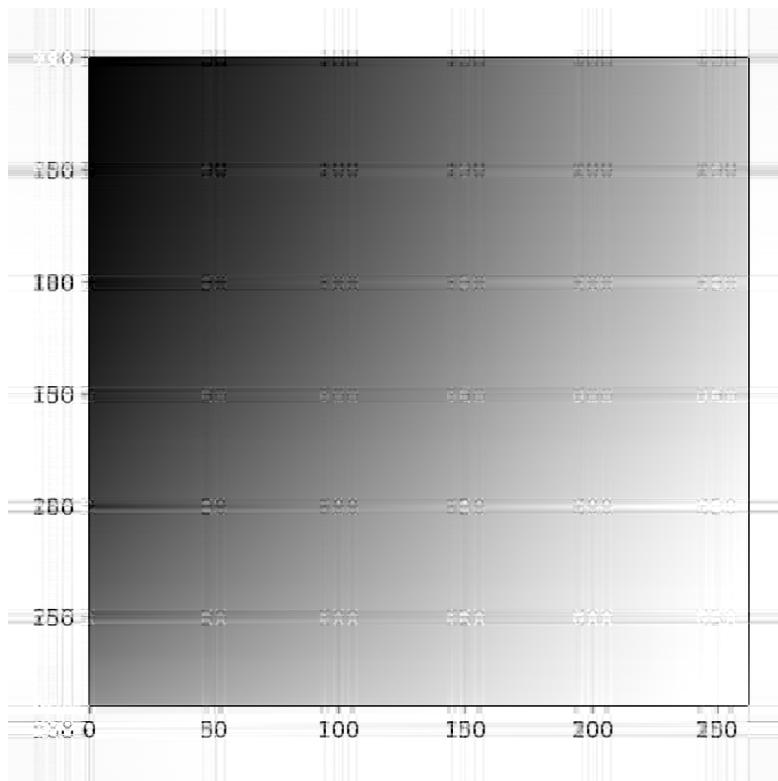


Fig. 0: Image at k=10

Error with different k values

Name	Value of k	Frobenius norm
greyscale_10	10	10867.079753
greyscale_100	100	1022.218584
greyscale_500	500	316.357178
greyscale_800	800	126.479341
greyscale_1000	1000	13.574708

TABLE 0: Relation between k and frobenius norm