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2270 Semester project draft.

Image Compression

Basic Overview: My project will explain why image compression is a very important and what two methods are to do this.

Explain why photos take up so much space to be stored in computers.

Give a basic overview of Singular Value decomposition and explain the math how to do this.
Write code to demonstrate how using different numbers of singular values and vectors can reconstruct an image.
Look at the error of reconstructing an image this way.

Give basic overview of Discrete Cosine Transformation and explain the math on how to do this.
Write code to demonstrate this transformation and compress the image to different levels.
Look at the Error of reconstructing an image this way.

Compare both methods and then determine which method can compress and image to a smaller storage space while still maintaining image quality.