

Programming Assignment 1

(Implementation of PCA)

Group Members

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Results from the Implementation

- Original Images provided

Original Images



- Image Constructed using 4096 components

Decompressed Images



- X (for which faces are discernible) = 5

Decompressed Images



- Images for value $X = 4$

Decompressed Images



Choosing Value X

- Comparison were made on basis of image (3rd row, 1st column)
- When $X \geq 5$ this face looks aged
- On $X < 5$ face looks young

Another Observation

- Eyes in image (1st row, 3rd column) are open in the original image but closed in the decompressed images.
- On $X > 20$, eyes are closed in that image
- It does not affect value of X as faces are still discernible at $X = 5$

Link for Code

Github Link: <https://github.com/Mandeep3838/Data-Science/tree/master/PA1>