

ML Project

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Glasses , No Glasses

Classification Using Neural Network and PCA

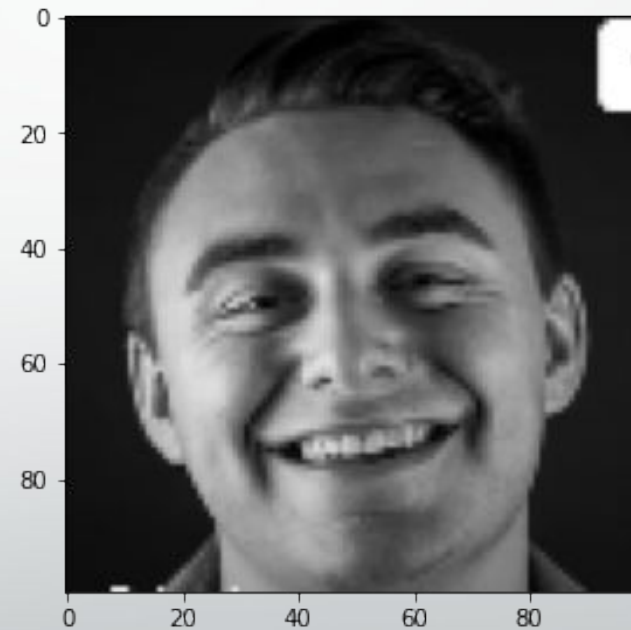
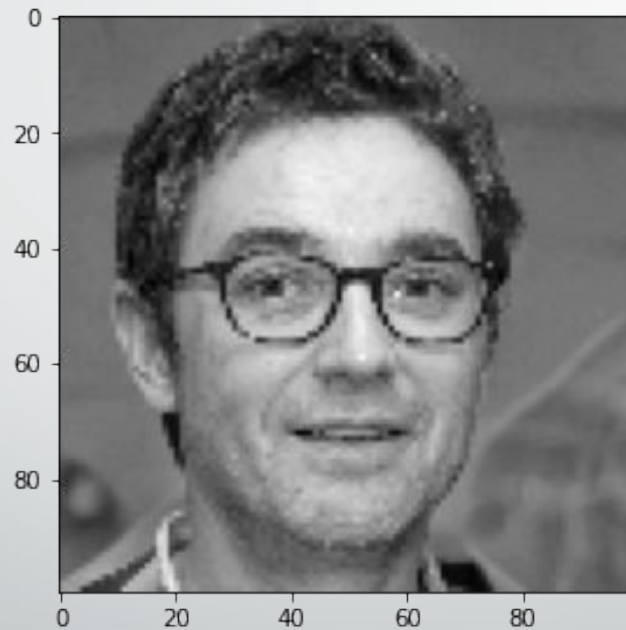
Data Collection

We took 30 images of people wearing Glasses and 30 images of people not wearing Glasses using web scraping.

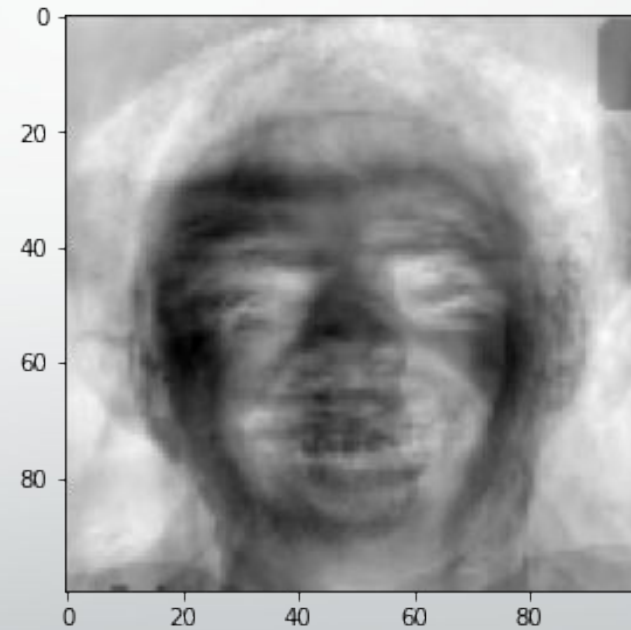
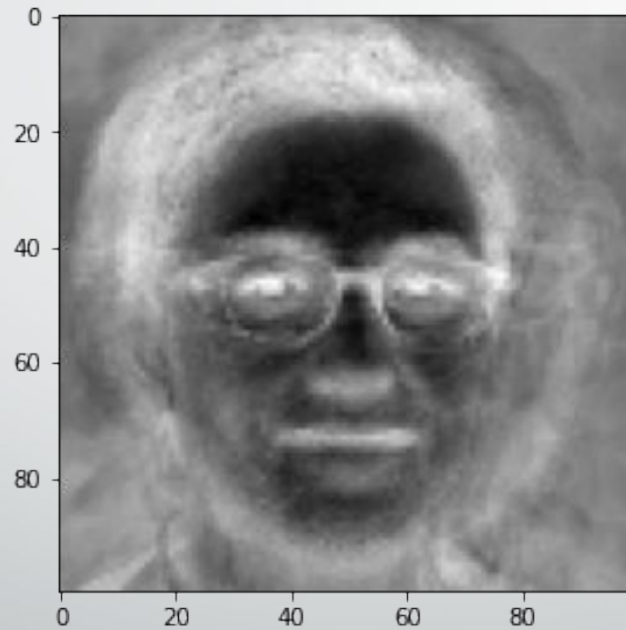
Work Done

- We Collected Data and converted into Data Frame.
- We applied PCA on the data frame and created new transform data.
- We applied NN on the transform data to create our own model for the prediction.

Gray scale images



Eigen images using PCA



Scope of Improvement

- We can improve the accuracy of the model built by using a large number of images.
- We can work on ways to improve the NN model.
- We can add a live camera detection feature using OpenCV which has various applications in the real world.

Applications

- At lenskart and various other companies selling sunglasses, to provide an AR view.
- Automated Immigration centers at airport.
- Face unlock features in phones.



Thank You