**FACE RECOGNITION USING GABOR WAVE AND LOCAL BINARY PATTERN**

As developed, the program uses the gabor wave algorithm to detect a face and then the face is loaded into the local binary pattern algorithm for recognition of the face.

A dataset of images have been collected and trained using the local binary pattern algorithm and this has in turn been recognizing. The local binary pattern algorithm uses the pixels on images for recognition. It only predicts incorrectly if the images used in training is very low. But has a high level of accuracy of about 98% with a large dataset.

The Gabor wave algorithm on the other hand is used for the image processing and also detects faces with a very good resolution, else it fails in the prediction of the human face.

**Dependencies**

This software program is built using python programming language. Other dependencies include, sci-kit-image, numpy, pandas, matplotlib, pyqt5, cv2, imutils.

**How to run the program**

Open the file, face\_algorithm.py using the python IDLE, press f5 on the keyboard to run the code. Then click the browse button to browse the image file, click detect to detect it as a human face. Close the window, and then click on local binary pattern to use the algorithm. The window opens up with the image that was detected using the gabor wave. Click recognize to recognize the face.