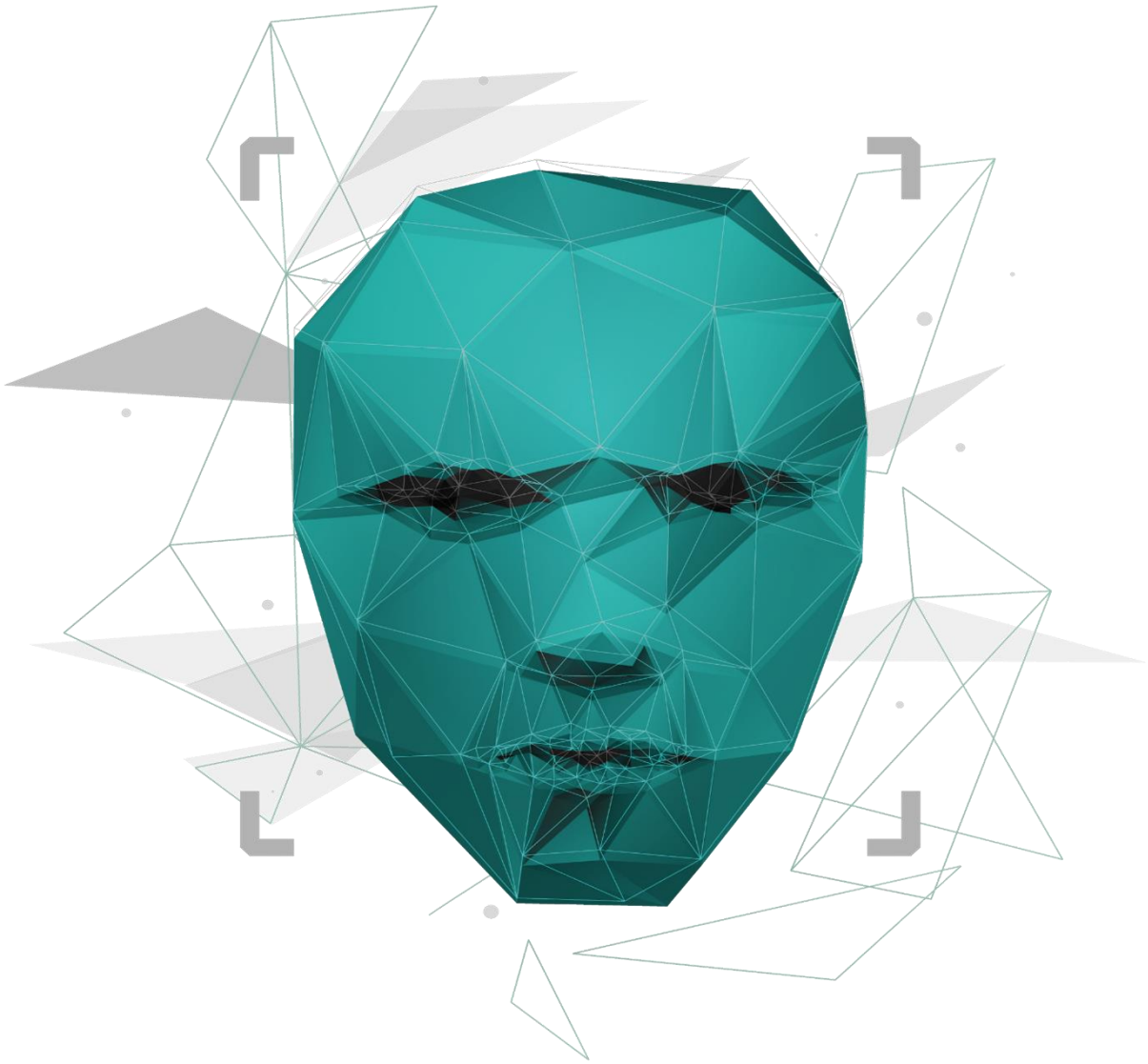
أكاديمية سدايا
SDAIA Academy

Face Recognition Login System



Introduction:

Facial recognition is a way of identifying or confirming an individual's identity using their face. Facial recognition systems can be used to identify people in photos

Facial recognition is a category of biometric security. Other forms of biometric software include eye retina or iris recognition. The technology is mostly used for security and law enforcement.

Problem Statement:

Absher is a smartphone application which allows citizens of and residents in Saudi Arabia to use a variety of governmental services

The goal of this project was to use deep learning to identify the main points of the face, including the points around the eyes, nose and mouth, to be used to identify or verify the identity of an individual using his face in the Absher system to facilitate the entry process and allow access the system.

Data Description:

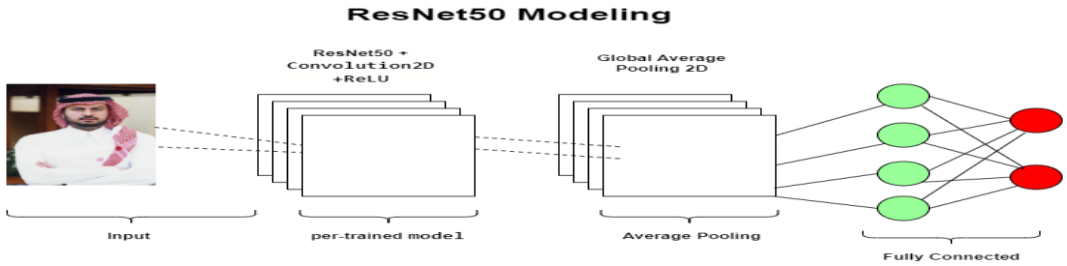
We will be using the " deep learning to identify the main points of the face " Dataset from Kaggle: the dataset has 7049 images. Each row contains the (x,y) coordinates for 15 key points, and image data as row-ordered list of pixels.

Tools:

Jupyter, Matplotlib ,Seaborn, Pandas, sklearn, os ,pathlib ,numpy,PIL., glob ,tensorflow ,keras ,pickle ,cv2.

Modeling

Base model

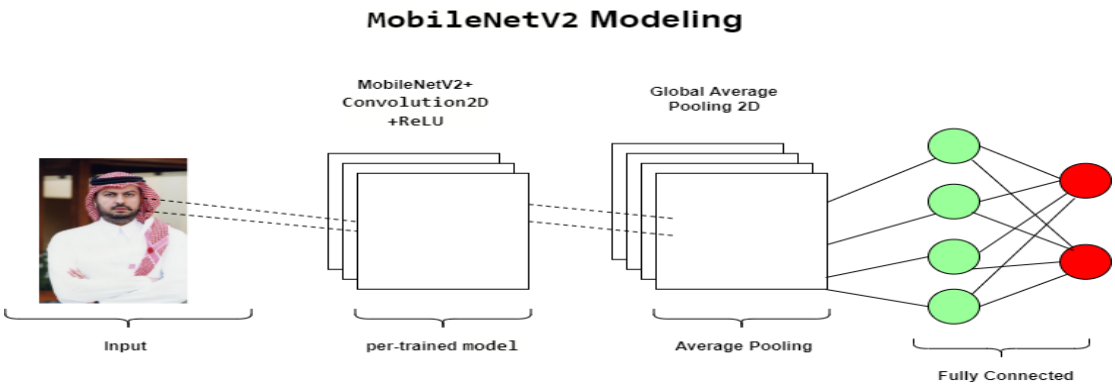


Accuracy: 0.96

Validation accuracy: 0.89

Modeling

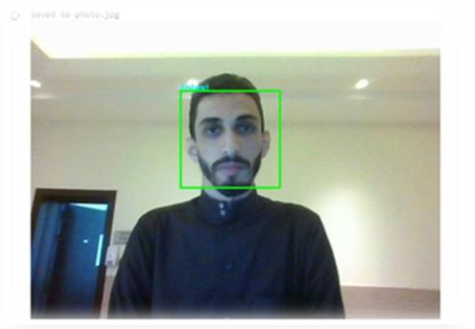
Our Best Models



Accuracy: 0.92

Validation accuracy: 0.92

Deployment



Interface

مستخدم جديد

تسجيل دخول

CONCLUSION

The Base model show overfitting between accuracy and Validation accuracy

The MobileNetv2 shows best result in the Validation accuracy