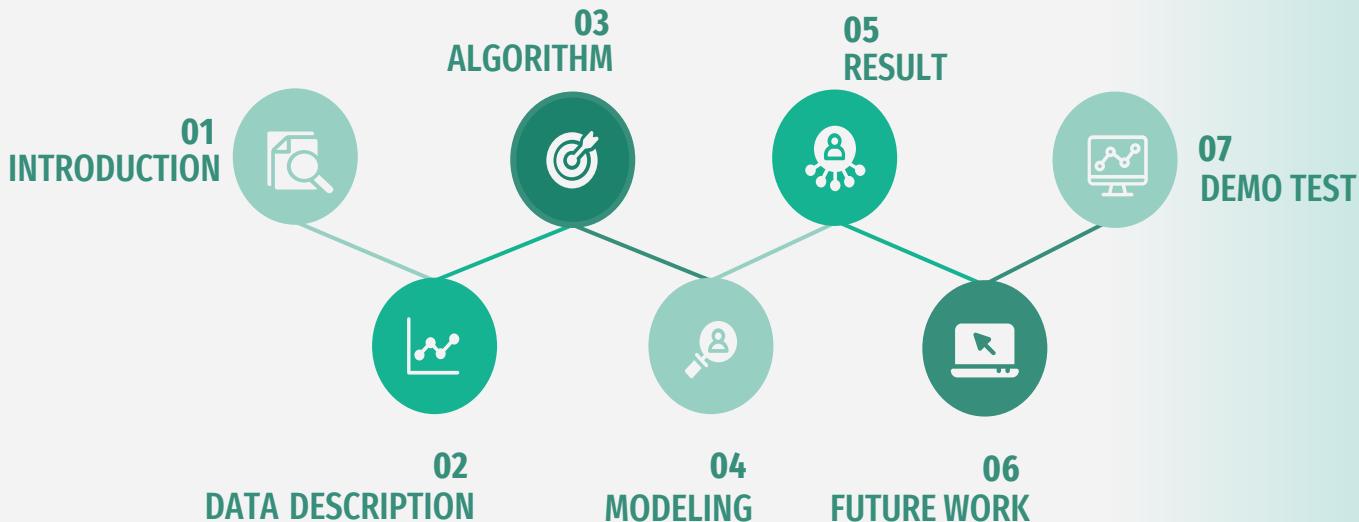




Tawakkalna App Face Recognition

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PROBLEM STATEMENT

01

INTRODUCTION



1 INTRODUCTION

Tawakkalna App was developed by the Saudi Data and Artificial Intelligence Authority (SDAIA) to assist the government in combating Covid-19. In total, Tawakkalna App offers 44 services to Saudi government ministries such as the Ministry of Health, Hajj, and Umra.

Through the use of Facial Recognition, this project intends to ensure the real identity of Tawakkalna users by checking if the picture matches the person's national ID. This is a security feature that can be used to recognize people's real identities in crowded areas such as Hajj and Umrah , where it is otherwise difficult to identify them.



A black and white abstract background featuring a complex network graph. It consists of numerous small, semi-transparent white dots representing nodes, connected by thin white lines representing edges. The nodes are more densely packed in the center and become more sparse towards the edges, creating a organic, cloud-like appearance.

02

DATA DESCRIPTION



DATA DESCRIPTION

This dataset contains 10 images of 40 distinct people with 400 images of their faces. Each image has the same background and size. These images will be our main method of reference throughout this project. From them, subsets will be created for Testing and Training.



03

ALGORITHM



ALGORITHM

This study aims to perform facial recognition using four different classification models to determine which one is the best to use.
The data splatted into:



Training



Testing

04 MODELING

توكلنا
Tawakkalna



MODELING

CNN model experiment

5 layers

20 Batch size

45 Epochs



95 % Accuracy

91 % Validation Accuracy

MODELING

CNN model experiment

10 layers

20 Batch size

45 Epochs



97 % Accuracy

92 % Validation Accuracy

05

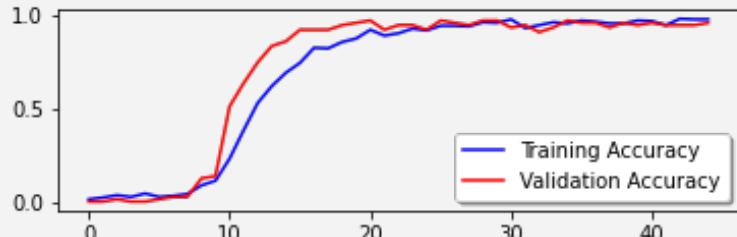
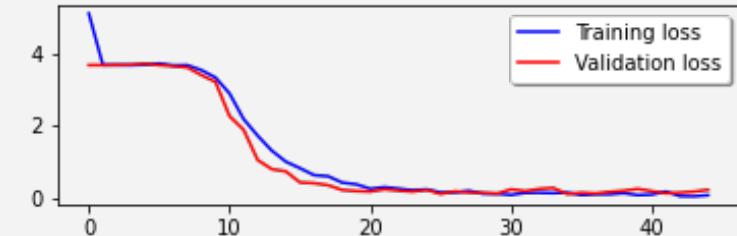
Result

Result



- Our best model it's CNN with 10 layers.

Accuracy and Loss

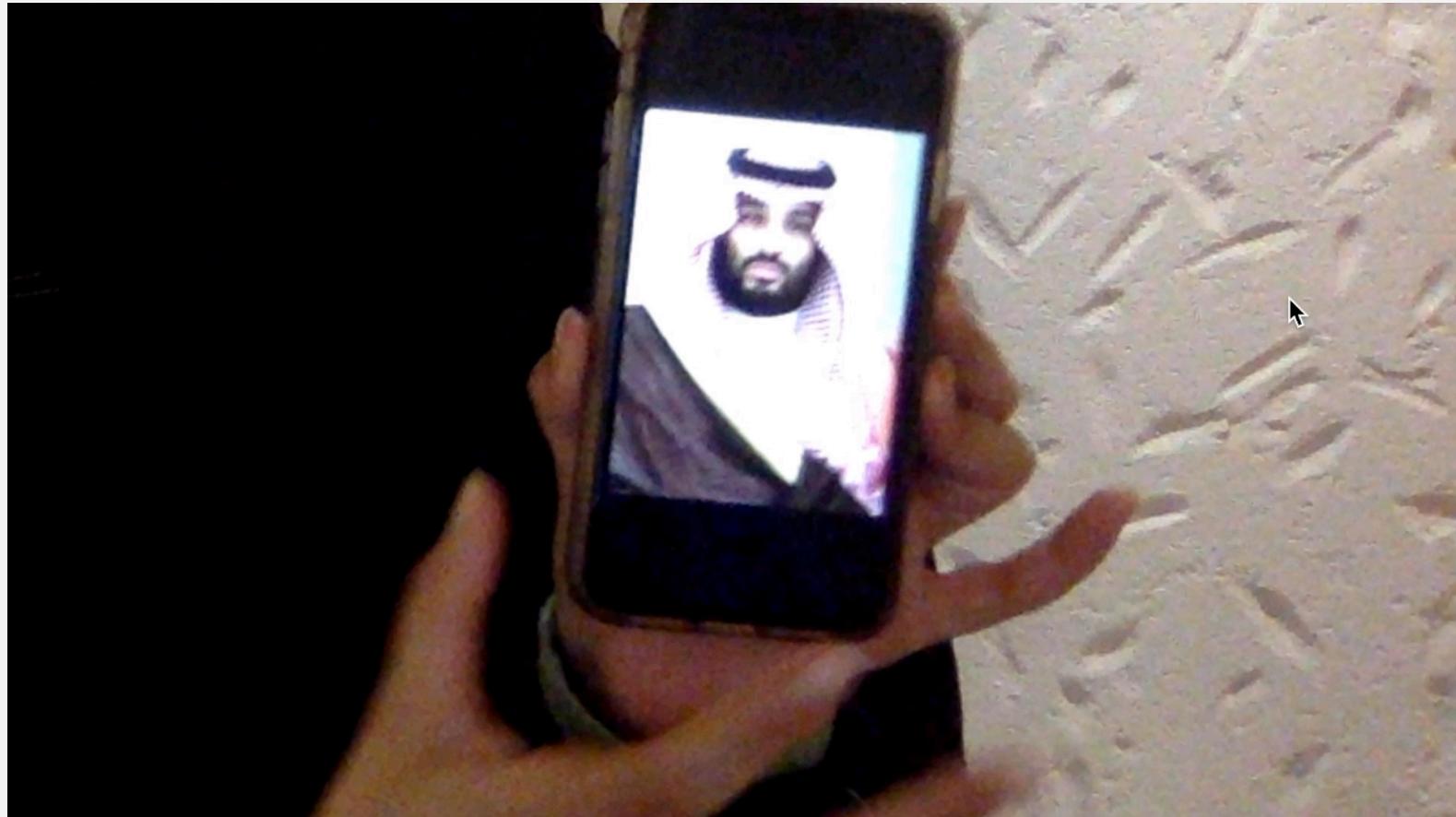




06

DEMO TEST

DEMO TEST





07

Future Work

Future Work

Iris Recognition biometric recognition systems which identify people based on their eyes and iris.





THANKS

For Your Listenig ..
Do you have any questions ?