Face Expression Recognition Project

A detailed report on the Face Expression Recognition Project

Project Overview

A brief summary of the project

Team Members: Mohamed Ashraf, Mahmoud Kamal

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Project Name: Face

The project aims to develop a system that can recognize facial expressions in real-time. The

Tools and Technologies: Python, OpenCV, Keras, TensorFlow

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Objective: To classify facial expressions into seven categories

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The Challenge

The challenges faced during the project

Lack of a comprehensive dataset

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Limited computational resources

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Difficulty in detecting subtle facial expressions

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Data Collection

The process of collecting data for the project

Data Collection Method: Online survey

The team collected data through online surveys and

Number of Classes: 7

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7

100

Number of Samples: 30,000+

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Data Preprocessing

The process of preprocessing the collected data

Data Cleaning

The team cleaned the data by removing irrelevant

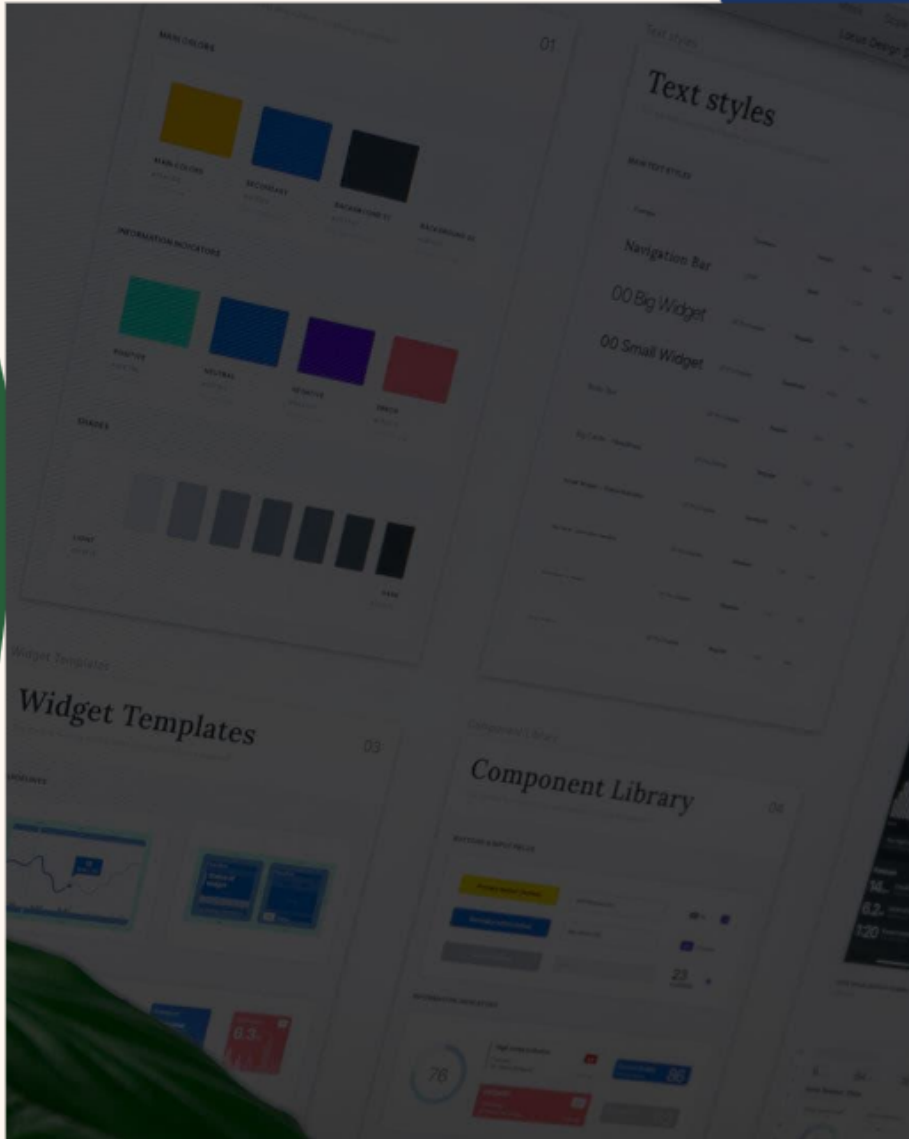## Data Augmentation

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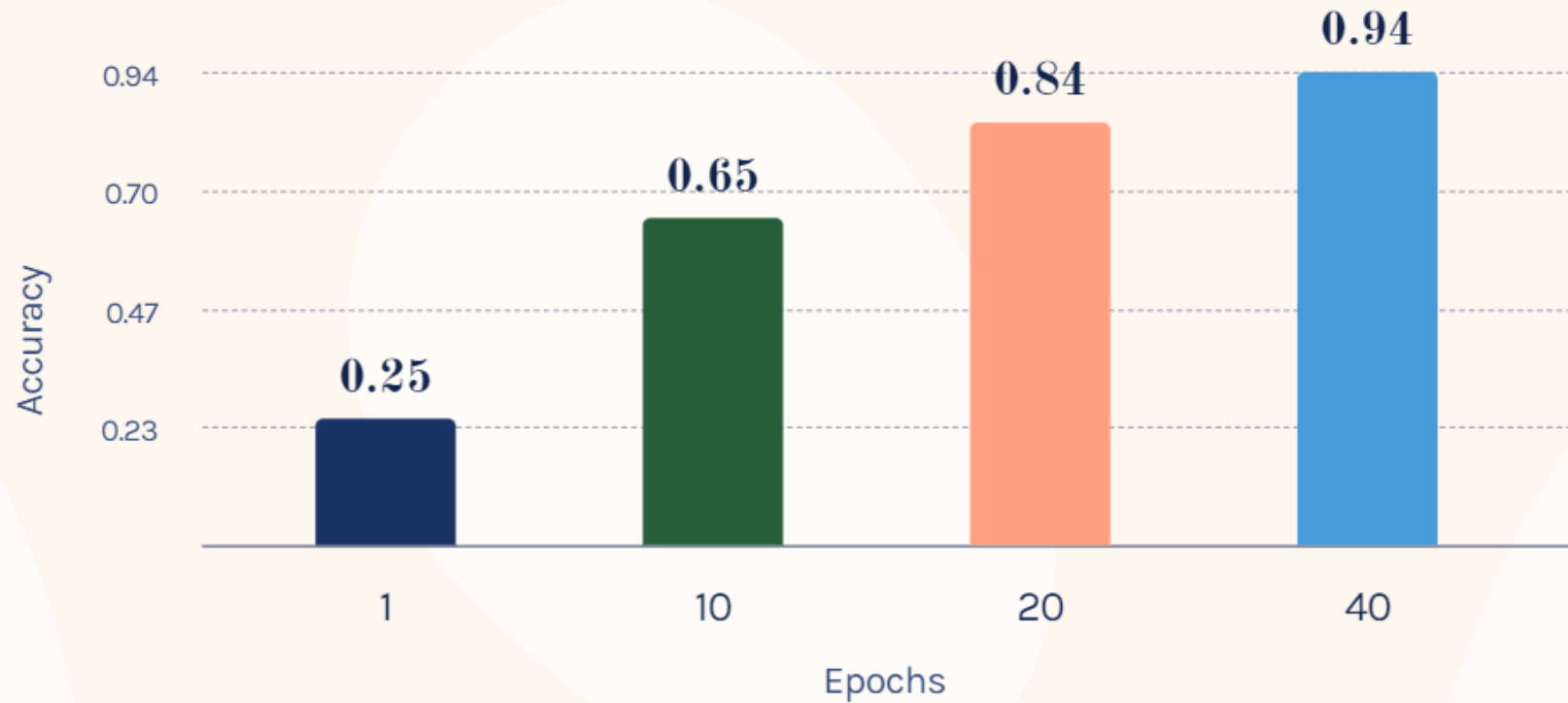## Normalization

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Model Architecture

The architecture of the model used for facial expression recognition

Training and Validation

The process of training and validating the model

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Results

The performance of the model on the test data

Class	Precision	Recall	F1-Score
Happy	0.90	0.85	0.87
Sad	0.79	0.83	0.81
Angry	0.75	0.72	0.73
Neutral	0.82	0.80	0.81
Fear	0.70	0.68	0.69
Disgust	0.85	0.86	0.85
Surprise	0.78	0.79	0.78