Image Processing: Face Detection Algorithm

Ahmed Munir 2040937
Hazem Baik 2042729

Introduction to Image Processing: Face Detection Algorithm

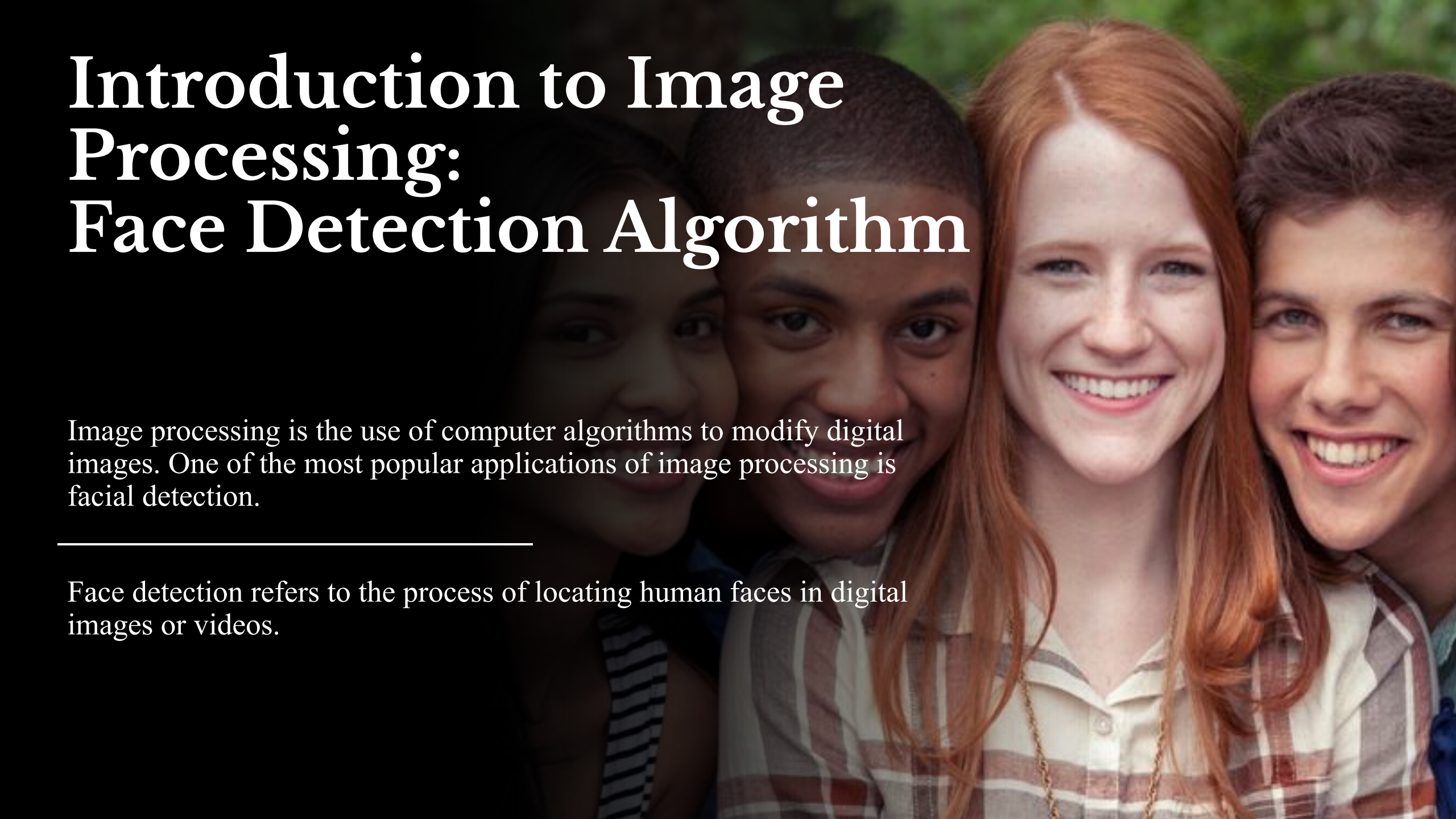


Image processing is the use of computer algorithms to modify digital images. One of the most popular applications of image processing is facial detection.

Face detection refers to the process of locating human faces in digital images or videos.

How it work:

The process of face detection involves several steps, including image acquisition, preprocessing, feature extraction, and classification.

- Image acquisition involves capturing an image of a person or a group of people using a camera.
- Preprocessing includes tasks such as noise removal, color correction, and image enhancement to improve the quality of the image.
- Feature extraction is the process of identifying the unique features of a face, such as the eyes, nose, and mouth, and generating a set of descriptors that can be used to classify the face. Finally,
- classification involves determining whether a given image contains a face or not.

Applications of Face Detection Algorithms

SECURITY AND SURVEILLANCE

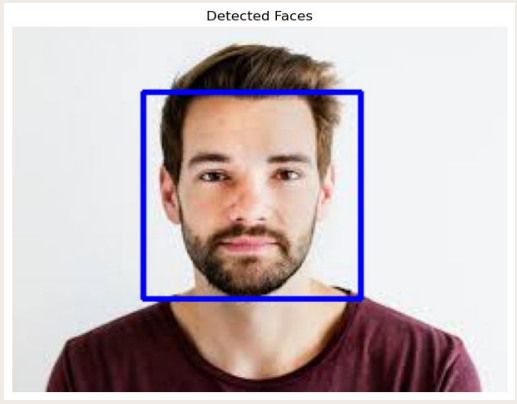
MARKETING

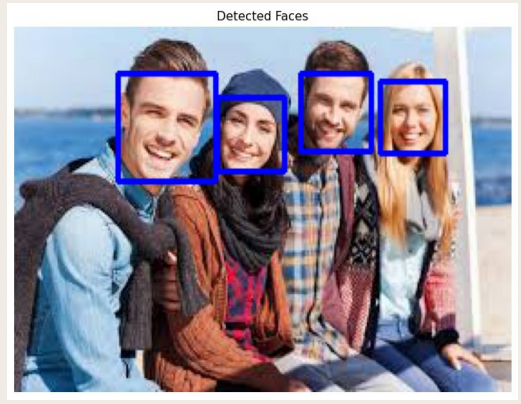
PHOTOGRAPHY

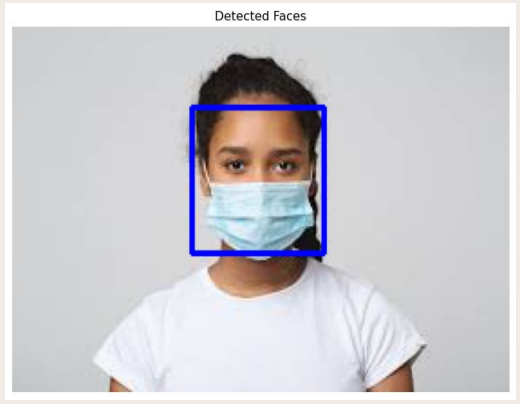
BIOMETRICS

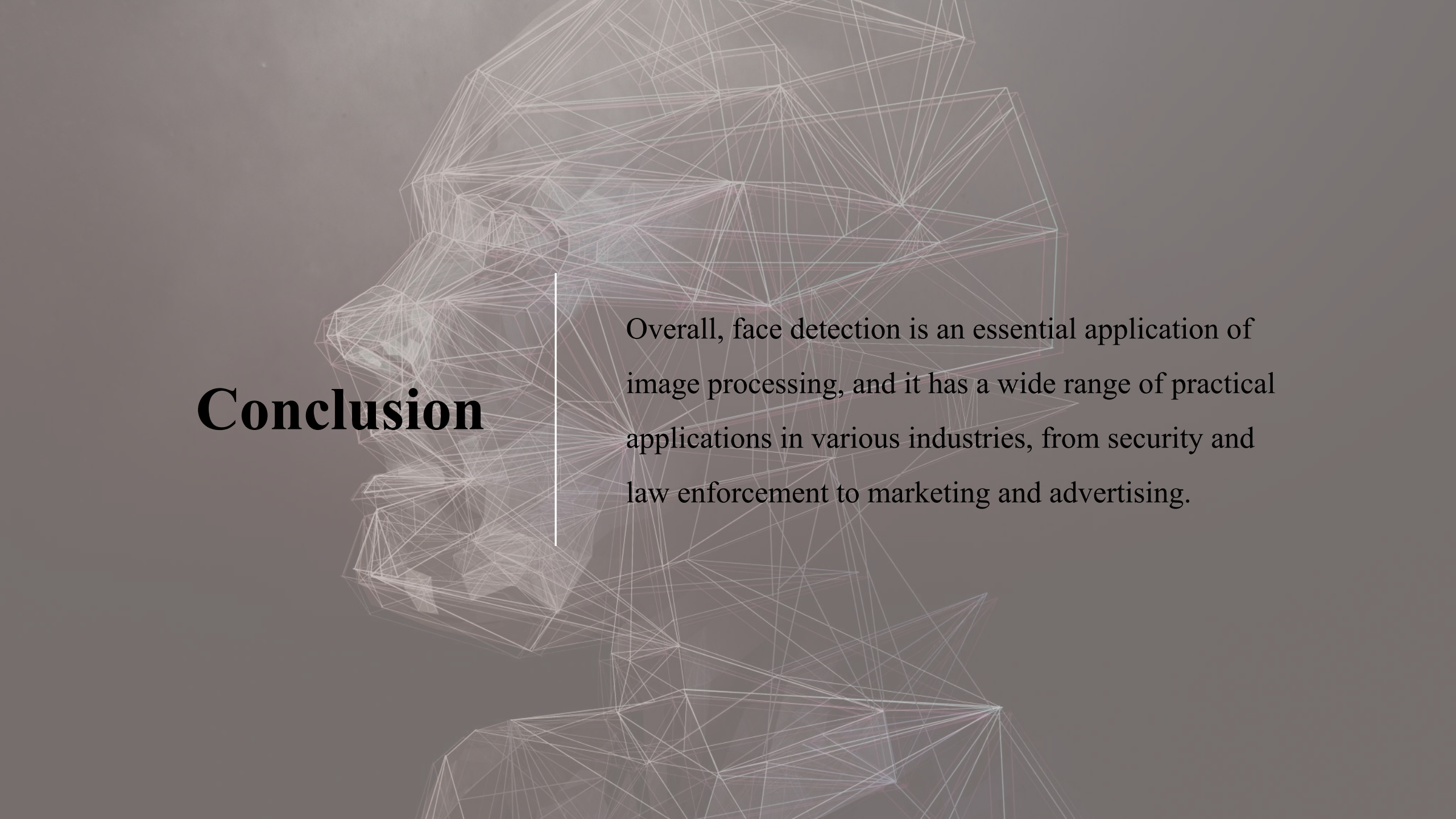
ENTERTAINMENT

Experiments









Conclusion

Overall, face detection is an essential application of image processing, and it has a wide range of practical applications in various industries, from security and law enforcement to marketing and advertising.