Ministry of Higher Education and Scientific Research
University of Babylon
College of Information Technology
Department of Information Security
Study: (Morning)

(Human Age Estimation from Face images using Moving Window Regression for privacy preserving)

Student

Hussein Ali Abd El-Zahra

Supervisor

Dr. Bayadir Abbas Hussein

A Graduate Project Submitted to the department of Information Security of the College of Information Technology, University of Babylon, in Partial Fulfillment of the Requirements for the Bachelor's degree in the Information Security of Information Technology

2023-2024

Abstract

In an era where privacy concerns are paramount, the need for accurate age estimation from face images while preserving individual privacy has become increasingly crucial. This project presents a approach to human age estimation using moving window regression techniques tailored for privacy preservation. The proposed method involves detecting faces within images, extracting facial features, and employing a sliding window regression approach to estimate the age of individuals. Crucially, only the age estimations are stored or transmitted, ensuring the privacy of individuals' facial data. The model is trained on a dataset of face images with corresponding age labels and evaluated to ensure accuracy. This approach holds promise for applications such as age-restricted content filtering, targeted advertising, and demographic analysis, where age estimation from face images is necessary while respecting privacy concerns.