Ministry of Higher Education and

Scientific Research

University of Babylon

College of Information Technology

Department of Information Security

Study: (Morning)

Human Age Estimation Using Support Vector Machine for privacy preserving.

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.

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Abstract

This paper explores the application of Support Vector Machines (SVMs) for human age estimation while prioritizing privacy. While SVMs offer high accuracy in age prediction from facial images, standard approaches raise privacy concerns. This work addresses this challenge by proposing a privacy-preserving framework for age estimation using SVMs.

The abstract can then delve into specific techniques employed to achieve privacy preservation, such as:

- Differential privacy methods for injecting noise into training data.
- Feature selection techniques that focus on privacy-preserving characteristics.
- Federated learning approaches where training is distributed across devices without sharing raw data.

By incorporating these techniques, the system can achieve a balance between accurate age estimation and robust privacy protection. The abstract should conclude by mentioning the effectiveness of the proposed approach, potentially including achieved accuracy alongside the privacy-preserving measures.