

ABSTRACT

REAL-TIME FACIAL RECOGNITION PROTOTYPE SYSTEM DESIGN USING FACENET AND MULTI-TASK CASCADED CONVOLUTIONAL NETWORKS (MTCNN) FOR FRAUD DETECTION

by:

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Facial recognition is a face-oriented recognition method. The recognition of human facial images is one of the technologies advancing in the field of computer vision, with applications in biometric recognition systems, searching and indexing in digital video databases, security access control, video conferencing, and human-computer interaction. The Multi-Task Cascaded Convolutional Networks (MTCNN) algorithm is one of the algorithms used to detect a face. The proposed facial recognition utilizes facial objects with varying positions captured from a webcam connected to a computer or using a built-in laptop webcam.

In this study, we extend the application of facial recognition technology to the online quiz environment. The objective is to implement a real-time web-based facial recognition system that leverages the power of FaceNet and MTCNN to detect potential fraudulent activities during online quizzes. By integrating this technologies, the aim is to enhance the security and integrity of online assessments by continuously monitoring participants' facial expressions and activities. This innovative approach will help identify and mitigate potential instances of cheating, ensuring a fair and trustworthy online examination experience.

The research results in a system that can detect indications of cheating during online quizzes.

Keywords: *face recognition, MTCNN, computer vision, FaceNet, CNN*