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Face Tracking and Recognition Using Deep Learning Approach

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Abstract : The most important factor in identifying a person is their face. Even identical twins have their own distinct faces. As a result, identification and face recognition are needed to tell one person from another. A face recognition system is a verification tool used to establish a person's identity using biometrics. Nowadays, face recognition is a common technique used in a variety of applications, including home security systems, criminal identification, and phone unlock systems. This system is more secure because it only requires a facial image instead of other dependencies like a key or card. Face detection and face identification are the two phases that typically make up a human recognition system.The idea behind designing and creating a face recognition system using deep learning with Azure ML Python's OpenCV is explained in this paper. Face recognition is a task that can be accomplished using deep learning, and given the accuracy of this method, it appears to be a suitable approach. To show how accurate the suggested face recognition system is, experimental results are given in 98.46% accuracy using Fast-RCNN Performance of algorithms under different training conditions.

Keywords : deep learning, face recognition, identification, fast-RCNN
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