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Developing a Secure Iris Recognition System by Using Advance Convolutional Neural Network

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Abstract : Alphonse Bertillon developed the first biometric security system in the 1800s. Today, many governments and giant companies are considering or have procured biometrically enabled security schemes. Iris is a kaleidoscope of patterns and colors. Each individual holds a set of irises more unique than their thumbprint. Every single day, giant companies like Google and Apple are experimenting with reliable biometric systems. Now, after almost 200 years of improvements, face ID does not work with masks, it gives access to fake 3D images, and there is no global usage of biometric recognition systems as national identity (ID) card. The goal of this paper is to demonstrate the advantages of iris recognition overall biometric recognition systems. It make two extensions: first, we illustrate how a very large amount of internet fraud and cyber abuse is happening due to bugs in face recognition systems and in a very large dataset of 3.4M people; second, we discuss how establishing a secure global network of iris recognition devices connected to authoritative convolutional neural networks could be the safest solution to this dilemma. Another aim of this study is to provide a system that will prevent system infiltration caused by cyber-attacks and will block all wireframes to the data until the main user ceases the procedure.

Keywords : biometric system, convolutional neural network, cyber-attack, secure
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