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Patent Search

Invention Title	THE CLASSIFICATION TECHNIQUE FOR THE FACE SPOOF DETECTION IN ARTIFICIAL NEURAL NETWORKS USING CONCEPTS OF MACHINE
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Abstract:

In biometric technology, face recognition techniques are considered the most significant research area. This technology is abundantly used in security services, smart surveillance, social media, and ID verification. The number of countermeasures is gradually increasing, and many systems have been initiated to distinguish genuine a fake attacks. In our invention, we propose a Convolutional Neutral Network (CNN), which can obtain ne distinctions and abilities in a supervised manner. Deep convo neural networks have prompted a progression of break-throughs for image classification. This invention introduces various architectures of CNN for detecting face sp many convolutional layers. We have used VGG-16 under Convolutional Neural Networks (CNN) architecture in the proposed system for learning about the feature cla Our proposed system has show-cased an accuracy of 98% for Convolutional Neural Network (CNN), 63% for VGG16, and 50% for Support Vector Machine (SVM) respe

Complete Specification

Description:The face is important in social interactions because it conveys an individual's identity and feelings. In comparison to robots, humans have a fantastic cap to discriminate between distinct faces. As a result, the automatic face detection system is critical for face recognition, facial expression recognition, head-pose estim and human-computer interaction, among other things. However, in this article, we will detail how to stave against face impersonation by the use of a deep convolut neural network (CNN). We are tasked with accomplishing this as our rst mission. Because CNN-learned features, rather than hand-crafted features, may better iden discriminatory characteristics in data-driven ways, this example might use CNN-learned features rather than hand-crafted features. Our first step was to collect the and Fake Face Detection dataset. We use TensorFlow and Keras; both Tensorflow and Keras is an open-source software library that delivers interfaces for ANN. This required basically online research work. We collected all datasets and real, fake images through online research and by ourselves and then tried to extract certain fa expression parameters using feature extraction and algorithms of machine learning. For this invention, we are using the Real and Fake Face Detection dataset. After unzipping the dataset, we will find two directories: real images and fake images. These images are then converted to a training dataset.
Firstly, we have to make all the images the same size. The images are reshaped into similar dimensions. Also, these images are removed from their colors. It is to be sure that all the images are converted to a size where the image quality is not compromised. We used CNN along with other algorithms, namely VGG 16. We then comp results and accuracy rate of previous works with our work and try to achieve a better accuracy rate. Many of the researchers have worked on CNN applications in a of ways. Many relevant studies on the issue of face recognition, face spoofing, feature extraction, and so on have been examined in many research articles. Face ant spoofing technologies are used to distinguish between authentic and false faces. It's one of the most pressing concerns in today's biometric applications. We have c some of the prior study papers that we have investigated in this of our report. A revolutionary face anti-spoofing solution is introduced based on a deep CNN archit

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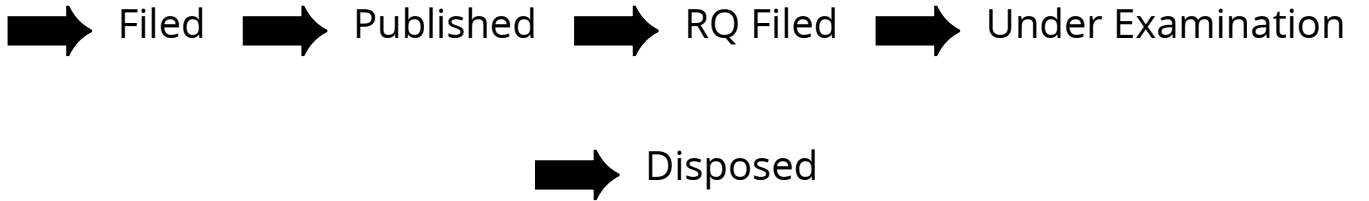
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