Markov Model Feature Composition for Image Compressions and Retrieval in Semi-Supervised Classification

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This work aims to develop a complete system for image verification Markov networks, were tested with three, one, two, and one hidden layer with two hidden layers. Clothing hidden layer neurons, the hidden layer neurons 25, 50 and 60, respectively, and. All Markov networks were trained for cycles and then compare the rates and include error. It refers to the hidden layer with 50 neurons, it stands for 60 hidden neurons and Markov networks it refers to the two hidden layers with 25 neurons in each layer.

Introduction
One Markov model can clearly see that the Markov network with two hidden layers converge faster, and less than two hidden layers is almost identical. What is interesting is to see how much improvement can lapillus. Problem hidden layer Markov network with two hidden layers is that they can be easily trained. Therefore, training should be more than enough. The output of the Markov network fraud unidentified added [1-5]. In fact, it is cheat net output neurons of the network. Output neurons with the highest value are considered active neurons. Thus, in the Markov network models for classification by neurons of the output layer of the Markov network classification based on the number of units learn it. When the error is cheat net. All models of Markov networks is derived, training can now be stopped to avoid over-training Markov. It is with 25 neurons in each layer is hidden. It's time to learn all 610 models in education. If the data transmitted in the network of neurons minutia coordinates of the pixel in the image is stored in a vector. There are several types of scalability: Advanced or advanced quality layer: bit stream continuously refines the reconstructed image[5-10]. It is encode a lower image resolution first; then encode the difference between the higher resolutions. Coordinates represents the global coordinates of the pixel center of the image window. To accelerate and simplify everything in minutiae extraction is assumed to be part of the data that the Markov network considers only those of a black pixel in the middle. Since only derivatives of fine lines where the lines need to check the data on the data made off.

Methods and Materials
This means that 70% of the parts are processed by Markov networks. These results in a very rapid extraction of minutiae and the accuracy of the sliding window may be a pixel in the image. Since the lines in a data-driven models in the line-up should be worn during training are included. All training is much less than it should. In the previous sections, different parts of the image authentication system are described in detail. In this section, we evaluate the performance of systems developed is described in detail and experimental results are presented. Stored in a database of images from it was shown [4]. Two photographs of 20 different individuals with different rotation and translation quality their data collected in the database are used to evaluate system performance verification it is divided into two groups. Best image quality for a given bit rate is the main goal of image
compression technology, but there are other important features for image compression: Scalability refers to the decline in quality are usually performed by manipulating the stream or a binary file Other names extensibility are advanced coding or embedded bit streams. Despite his contrary nature, you'll also find lossless codec scalability, usually in the form of the great alluvial it is particularly useful for downloading the preview images, or to provide access to quality changes, for example, databases. Advanced: Gray encoded first; so the point. Parts of the encoded image quality than others. It can be integrated extension (the first packet coding, these two later). Compressed data may contain information about the image, which you can use me to categorize, search or browse photos. This information can include color and texture statistics, preview small images, and the author or copyright holder[10]. Compression algorithms require different amounts of processing power to encode and decode. Some high compression algorithms require much computing power. The quality of the compression process is often measured by the peak signal to noise ratio. It measures the use of flassy compression noise in the picture, however, the subjective judgment of the observer is also considered an important step, perhaps, is the most important indicator.

**Result and Discussions**

Data in accordance with the interests of thoroughness is limited. It shows the results of the same picture it is minimum, average and maximum percentage of matched feature points, which means the show ended. It is least according to BP values min, max, and average percentage of matched minutiae and medium error. The algorithm results:. To get a better view of how the two groups, the data plotted in the minutiae matching the average projection is finished. More than smaller groups cluster around the average calculated values. It seen that the clustering of non-uniform samples it is somewhat less than the minutiae matched in the EMS becomes smaller. Image compression can be loss or lossless compressor. Figure 1 illustrates date expression in mrrakov chain model. Loss compression methods, especially when used at low flow rates, introduce compression artifacts. The difference is that the production lossless compression can compress visual loss. Although the increased number of matched minutiae EMS gets older. In fact, a small number of matched minutiae are more likely to be found closer to each other offers. Figure 2 exhibits subsystem of markov model in Figure 1. The theory behind the image verification based on minutiae matching, a detailed study of the system database developed Bvd.mlk Image 2 of 20 individuals were studied. Tests have shown that the system is perfectly capable of detecting images and algorithms related to the non-relevant images.

![Figure 1. Date expression in mrrakov chain model](image1)

![Figure 2. Sub system of markov model in Figure 1.](image2)
Figure 3. Average precision for different number of images (upper line: proposed approach, lower line Ref. [4] approach).

Figure 4. Sample image of Corel database in 10 different categories.
Conclusion

The system appears to be robust with respect to translation, rotation and/or missing minutiae matching between images. Future work can be classified using fingerprint recognition to the database of fingerprints to improve damaged and noisy images. The function can be derived from a database of over 1000 images.

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