Analysis of Application Scenarios of Intelligent Processing Technology for Computer Image Recognition

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Abstract

With the development and progress of computer science and technology, computer technology is becoming more and more advanced, and intelligent processing technology for image recognition is widely used in daily life. The intelligent processing technology of computer image recognition has been deeply integrated into people's daily life, ubiquitous, bringing great convenience to people's production and life. This article will take the introduction of the application principle and application advantages of intelligent identification technology as the starting point, through the analysis of the current status of technology applications, a comprehensive discussion of the practical application of the technology in electronic image processing, and will make a prospect for the development of this technology The aim is to improve the application level of intelligent identification technology and ensure the final processing quality of electronic images.

Keywords

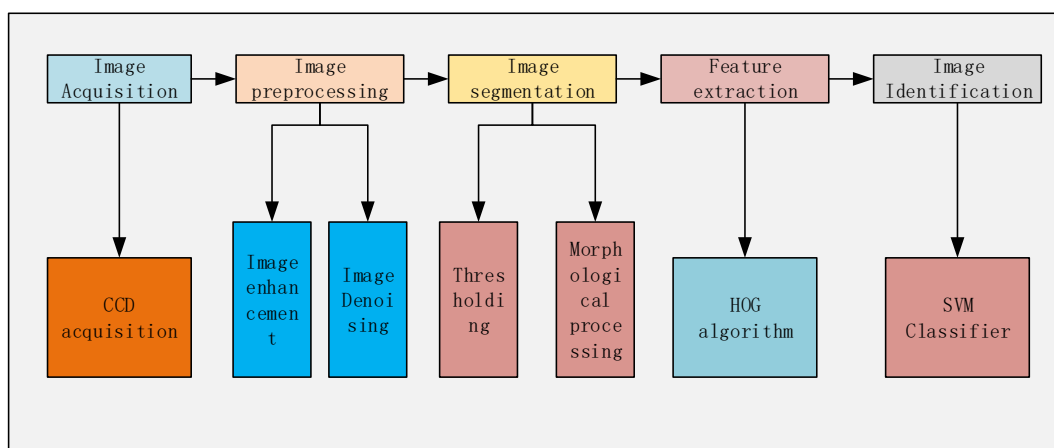Intelligence, Image Recognition, Processing Technology.

1. INTRODUCTION

With the development of society and science and technology, computer image recognition technology is becoming more and more intelligent, which can meet people's individual needs for images to a great extent. Image recognition technology combines computer technology, recognition processing technology, and intelligence to convert the input image graphics information into computer digital signals, analyze and process, convert it into characteristic information, and perform classification and matching [1-3]. Get the final effect, this way significantly improves the processing speed and quality of the image. Computer digital signals have the advantages of anti-interference, small amount of information, easy storage and long-term storage, making image recognition easy to perform operations [4].

Computer image recognition technology has undergone several stages of development and evolution [5-7]. In the early days, it was only capable of identifying and processing simple digital and text information. Later, it gradually developed to be able to identify and process simple digital image information. One-dimensional images or even three-dimensional stereo images. Today's image recognition systems can be roughly divided into three forms: neural networks, structures, and statistics. Image recognition based on neural network is a new type of widely used recognition technology. It combines traditional image recognition technology with advanced neural network methods, which greatly improves the recognition rate.

2. INTRODUCTION OF INTELLIGENT PROCESSING TECHNOLOGY FOR COMPUTER IMAGE RECOGNITION

In general, we must consider five aspects when intelligently processing computer images. That is, we first perform computer input on the required pictures, pre-process the input images, and then analyze the extracted images during the pre-processing process. In the five modules, we must ensure that the purpose of the picture is to meet people's needs. Figure 1 is the image recognition process.
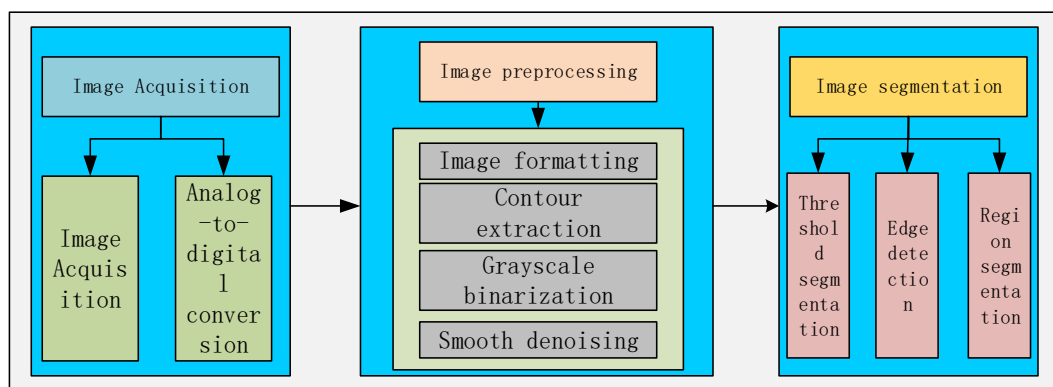

Figure 1. Image recognition process

The intelligent processing of image recognition is mainly worthy of the advanced image recognition technology and computer technology to ensure the quality and actual effect of the recognized image, so that the intensity of image recognition can be comprehensively improved. For image shooting, advanced high-sensitivity technology makes its images clearer and simplifies its shooting procedures, so that photographers can take clearer images in darker places. Based on this, in the current intelligent process of computer image recognition, it is possible to compare high-quality recognition images.

During specific processing, relevant personnel should pay attention to and attach importance to image recognition to ensure the realization of automated analysis and processing and improve its quality. In general, in actual processing, attention should be paid to preprocessing, extraction characteristics, and classification methods. The use of computer image recognition technology in these three aspects can ensure the image quality and actual results, display the image information content, integrate the image information content by extracting features, and classify its characteristics.

2.1. Principle Analysis and Research on the Application of Intelligent Processing Technology for Computer Image Recognition

The intelligent processing of computer image recognition will be applied to all walks of life in the society. In this process, we use computer technology to effectively process pictures. It can use digital technology to process the color of pictures, which makes it powerful Function, it is mainly used in some processes of image scanning and video analysis. Figure 2 is computer image recognition technology.
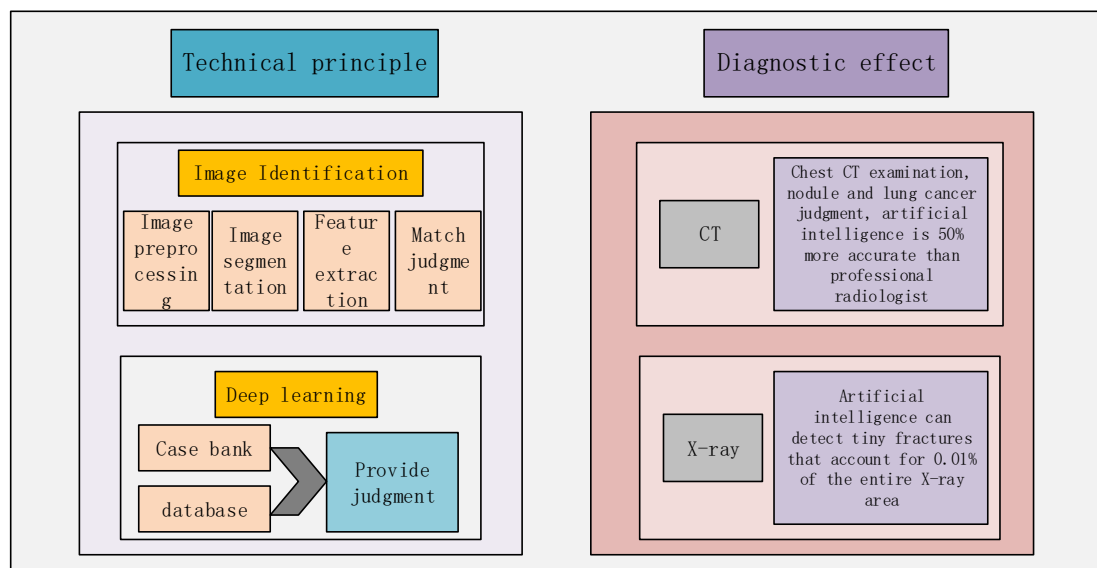
Figure 2. Computer identification technology

Intelligent electronic image recognition technology relies on the computer's information processing capabilities and digital technology to process electronic images. With the continuous improvement of intelligent recognition technology, its application in electronic image processing is also increasing. Combining intelligent recognition with the powerful computing power of a computer, the electronic image information can be processed quickly and efficiently, and the quality of the processed image is also improved. For example, applying the sensor's low-light technology in image recognition technology can make the image information extracted by the camera. This intelligent electronic image recognition technology can meet people's requirements for high-definition images, and can also obtain clear images in low-light environments, and ensure that details are not distorted. Intelligent recognition and calculation can reduce light, noise and other external factors.

Effect to improve the anti-interference of the image. At present, the main intelligent electronic image recognition technology methods include neural network method, structure method and statistical method. In actual use, specific technical solutions should be considered in combination with the characteristics of the image to be processed and the advantages of different processing methods. This technology can statistically analyze the characteristics of the image, establish a mathematical model that can be used for calculation, and use the powerful computing power of the computer to better complete the intelligent identification processing.

2.2. Application Scenario Analysis of Computer Image Recognition Intelligent Processing Technology

The development of modern medical technology is more and more mature. Among them, it is inseparable from the technology of computer picture recognition. This technical method can help doctors better analyze the condition of patients and further help them to perform later treatments. Hospitals can do ECG and brain wave examinations for patients, all of which rely on intelligent processing technology of computer image recognition. Figure 3 is the application of image recognition technology in the medical field.

Figure 3. The application of image recognition technology in the medical field

Maybe we only care about appreciating some literary and artistic creations, and ignore the technical use behind it. The use of computer image recognition technology in the field of literary and art can lead to higher picture sharpness, so that people can have more enjoyment when enjoying. In addition, computers the intelligent processing method of image recognition can also detect the authenticity of TV programs. For example, in the TV series, the phenomenon of matting appears. This phenomenon can be easily seen after the intelligent processing of computer image recognition. True and false.

The rapid development of science and technology has led to the rapid spread of super counters, and the traditional manual business processing model has begun to shift to an intelligent business processing model. When actually performing business operations such as account binding and account opening, the corresponding processing procedures can be accurately completed with the assistance of identification technology, which not only has high business transaction accuracy, but also can achieve the goal of effectively reducing business processing time, which can provide property security Reliable guarantee. At present, some regions have begun to implement unmanned supermarkets. Such supermarkets are supported by network technology and electronic image recognition technology, and use recognition technology to manage supermarket operations through face recognition.

With the help of intelligent electronic image recognition technology, researchers can accurately collect image information of some nano-scale or very large objects. Under extremely harsh environmental conditions, intelligent electronic image recognition technology can also eliminate the interference of various environmental factors, and provide effective, multi-angle image data for scientific research teams. For example, in astrophysics, by applying this technology, researchers can clearly show all the details of the perimeter zone, and even make conditional assumptions. With the powerful computing power of computers, they can verify and predict some theories.

People depend on food. Agriculture has played an important role in China since ancient times, and grain production has a greater impact on the economy. Therefore, increasing yield is the key to the research of agricultural researchers in China. High-tech is not only applied in people's daily life. High-tech is also introduced in the agricultural field. Smart agriculture is no longer a new word. Intelligent agriculture introduces computer image recognition technology, which can observe the growth of plants and plant leaves in real time. Research on plant diseases and insect

pests, real-time panoramic monitoring of plants, and quality inspection of agricultural products. It has scientific guiding significance for studying plant phenotypes, affecting plant growth factors and developing new plant varieties.

3. CONCLUSION

The further research and application of intelligent electronic image recognition technology is of great significance for social development. At present, the main efforts of intelligent electronic image recognition technology are to increase the speed of image recognition and the amount of operational data that it can withstand. With the continuous upgrading of computer technology, I believe that the goal of optimizing intelligent electronic image recognition technology will be achieved soon. In addition, intelligent electronic image recognition technology will gradually realize personalized development, from two-dimensional to three-dimensional or more dimensions. For example, using intelligent electronic image recognition technology in archeological work can build three-dimensional models of ancient tombs, which can make the entire archeological work has become clearer and more systematic. Now, more and more scientific research teams have begun to study AR and VR technologies. The future of life will bring people's vision and sensory changes one after another.

ACKNOWLEDGMENTS

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