

THE CHINESE UNIVERSITY OF HONG KONG, SHENZHEN

# CSC3185

### Introduction to Multimedia Systems

#### Application of 3D Image Recognition in Medical Diagnosis

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## 1 Topic and Understanding

In recent years, the application of pattern recognition technology has penetrated into various fields, opening up new possibilities for the development of artificial intelligence. One of the most influential and dynamic application areas is in the field of health care. Especially in disease detection and recognition, pattern recognition technology has brought major changes, significantly improving the early diagnosis and treatment of diseases.

In the pattern recognition technology, 3D image recognition technology has important value. Through the shape, size, color and other information, based on the image analysis and calculation, three-dimensional image recognition can accurately locate the location and size of the disease, and provide accurate basis for doctors' diagnosis and treatment. In addition, the technology clearly shows the boundaries of the disease in real time, allowing doctors to assess the extent and spread of the disease and accurately measure the effectiveness of treatment.

3D image recognition technology also has powerful dynamic monitoring function. Regular examination can understand the changes of the disease in real time, so that doctors can adjust the treatment plan in time to achieve effective control of the development of the disease. This not only improves medical efficiency and precision, but also brings personalized medical services one step closer.

Therefore, in this project, we will deeply explore the application of 3D image recognition in medical diagnosis. It is believed that with the progress of pattern recognition technology, there will be more breakthroughs in the field of medical health in the future, and more benefits to human health and life.

- 2 Schedule and Task Distribution
- 3 Work Already Done and Further Plan