

Algorithm and program for geometric shape recognition using neural networks

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Abstract: In the context of the increasingly diverse applications of artificial intelligence technology, this topic focuses on building an automatic recognition system for geometric shapes using neural network techniques. The goal is to solve the challenging problem of accurately and quickly classifying complex images into basic shapes. The research method involves synthesizing knowledge from theory to design algorithms, combined with experiments on real data to improve accuracy and processing speed. The expected results of this topic not only contribute to the development of geometric recognition technology but also expand its application potential in fields such as automation, 3D graphics, and computer vision.

Keywords: neural network, geometric recognition, artificial intelligence, image processing, algorithm