

ABSTRACT

Deep **learning** is a technological tool that holds great potential for use in the image recognition industry. This paper will review and investigate the use of deep learning in image recognition, given the theoretical and practical importance of this technology in advancing computer vision and artificial intelligence. This paper first describes the history of icon recognition technology. It then presents the three primary deep learning learning models—generative adversarial networks, recurrent neural networks, and convolutional neural networks—and offers a comparison of them. Ultimately, an analysis and discussion are held regarding the research findings from the fields of deep learning image recognition application, including face recognition, medical image recognition, and remote sensing image classification. This paper also examines the deep learning development trend in the image recognition space, concluding that the successful recognition of video images and the theoretical reinforcement of models represent the future development direction.

Keywords : Image Recognition, Image, Models ,Network, Deep Learning