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Deep Learning for Enhanced Cancer Diagnosis in Medical Image Bioinformatics Through Feature Selection

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Abstract:

Cancer diagnosis has greatly benefited from advancements in medical imaging and bioinformatics, particularly through the application of deep learning techniques. This study presents an enhanced framework for cancer diagnosis by leveraging deep learning models for medical image analysis and integrating feature selection methods. The approach utilizes convolutional neural networks (CNNs) to extract relevant features from medical images, followed by advanced feature selection techniques to improve the accuracy of the model while reducing computational complexity. By identifying the most significant image features, the system improves the early detection and classification of various cancers, facilitating more accurate diagnoses. Experimental results demonstrate the effectiveness of the proposed method in enhancing cancer detection accuracy and providing potential clinical applications for medical professionals.

Keywords:

Cancer diagnosis, deep learning, medical imaging, feature selection, bioinformatics, CNN.

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