عنوان مقاله:

A Deep Learning Approach Combining CNN and LSTM for classifying Magnetic Resonance Brain tumor

محل انتشار:

سیزدهمین کنفرانس بین المللی فناوری اطلاعات،کامپیوتر و مخابرات (سال: 1400)

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خلاصه مقاله:

One of the main challenges in treating tumors and assessing disease progression is diagnosing tumor size And distinguish tumor types from each other. Manual tumor segmentation in three-dimensional Magnetic Resonance images (volume MRI) is a time-consuming and tedious task. Its accuracy depends heavily on the operator's experience doing it. The need for an accurate and fully automatic method for segmenting brain tumors and measuring tumor size is strongly felt. This paper first uses a combined CNN-LSTM method to detect HG and LG tumors in ۳D brain images. Then it used the UNET Neural Network to improve the location of the tumor in the brain. In this article, we use BRATS ۲۰۱۸ database images, And manual segmentation is used as the Grand truth. in this paper, we showed that the proposed method could effectively perform segmentation.

کلمات کلیدی:

Brain Tumor, Long short term memory, convolutional neural network, Deep learning

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