

Programmed Multi-Classification of Brain Tumor Images Using Deep Neural Network

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Abstract: *In this paper, we propose a brain tumor segmentation and classification method for multi-modality magnetic resonance image scans. The data from multi-modal brain tumor segmentation challenge are utilized which are co-registered and skull stripped, and the histogram matching is performed with a reference volume of high contrast. We are detecting tumor by using preprocessing, segmentation, feature extraction, optimization and lastly classification after that preprocessed images use to classify the tissue. We performed a leave-one out cross-validation and achieved 88 Dice overlap for the complete tumor region, 75 for the core tumor region and 95 for enhancing tumor region, which is higher than the Dice overlap reported.*

Keywords: CNN, Preprocessing, Feature Extraction

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