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Efficient MRI Segmentation and Detection of Brain Tumour using CNN

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Abstract: *In many fields, including medical imaging, aerial surveillance, the best manipulation and analysis, surgical microscopes, etc., object detection is crucial. The goal of this system is to create a standard for the detection and classification of brain tumors, specifically to identify whether a tumour is cancerous or not using the SVM algorithm. Many people have already used ANNs that employ empirical risk minimization to detect things. To categorize the photos, we are utilizing the Support Vector Machine technique, which relies on structural risk minimization. Medical images are subjected to the SVM algorithm for tumour extraction, and a system using Python is constructed for the tumour classification function as well. CNN techniques were employed for the training dataset. This system exhibits a CNN and SVM-based object detection prototype.*

Keywords: CNN, SVM, Brain, Tumor

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