Deep Learning Approach for Brain Tumor Classification using SVM

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Abstract: *Object detection plays a major role in many areas like medical imaging, aerial surveillance, optimal manipulation and analysis, surgical microscopes, etc. The objective of this paper is to develop a model for brain tumors detection and classification i.e., to classify whether the tumor is cancerous or non-cancerous using SVM algorithm. Earlier many have detected using ANN which works on Empirical Risk Minimization. We are using Support Vector Machine algorithm that works on structural risk minimization to classify the images. The SVM algorithm is applied to medical images for the tumor extraction, and a tumor classification function. This paper presents a prototype for SVM-based object detection, which classifies the images and evaluates whether the classified image is cancerous or non-cancerous.*

Keywords: Image processing, SVM, MRI(magnetic resonance imaging), brain tumor

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