ABSTRACT

Brain Tumor Segmentation is one of the most crucial and arduous tasks in the terrain of medical image processing as a human-assisted manual classification can result in inaccurate prediction and diagnosis. Brain tumours are two types:

* Malignant
* Benign

Most of the disease will reach the critical stage if not detected earlier. Timely detection of the disease will help a lot in the treatment process. The major cause of brain tumours is because of the abnormal growth and uncontrolled cell division in the brain. Pituitary, Meningioma and Glioma are some of the common types of tumours. We will use the MR images of the brain to predict the pattern of the tumour with the help of machine learning techniques which makes the process less time consuming with the minimal amount of errors. Basically the MR images are taken in three different directions for brains:

1. Axial,
2. Coronal
3. Sagittal.

These three images are analysed by the model to detect the tumour.We investigate the role of CNNs to segment brain tumours by firstly taking an educational look at CNNs and perform a literature search to determine an example pipeline for segmentation.