**A Comparative Analysis of Deep Neural Networks for**

**Brain Tumor Detection**

ABSTRACT

The technological advancement in the field of medical science for the detection, classification and identification of several diseases is making the diagnosis process easier and efficient at the same time, provides a helping hand for medical practitioners in saving life. Health experts are making use of these most advanced technological practices for reaching at conclusions in the area of health care. Brain tumor detection is one of the key major challenges in medical field. Early detection of tumor plays the most important role in fixing the most efficient treatment techniques for increasing the survival rate of patients. Manual detection of tumors for diagnosing cancer from data generated from clinical instruments is a time consuming task and the efficiency depends upon the radiologist. So through this paper, we are proposing methods for automating the detection process which can help the radiologist reaching at a faster conclusion in an efficient manner. We are proposing methods based on the pretrained network models like ResNet and its variants for brain tumor detection. The obtained results shows that ResNet-152 is the most efficient one among them for brain tumor detection and we can automate the process more effectively.

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