**Problem Statement and Importance**

In 2022 approximately 25,000 people will be diagnosed with a malignant brain tumor, and more than 18,000 will succumb to this illness according to the National Brain Tumor Society. Early and accurate brain tumor diagnosis is crucial for treatment options along with increasing the survival rate. There are immediate benefits when taking advantage of Machine Learning techniques within the healthcare industry, specifically the analysis of MRI Scans. Magnetic resonance imaging (MRI) is an imaging process that captures detailed images of organs and tissues to assist with diagnosis. The time and effort that it takes for healthcare specialists to gather and analyze data from the MRI can be extremely difficult. Utilizing Deep Learning methods and techniques will enhance the diagnosis process to ensure efficient and accurate results.

**Goals**

1. To determine the most efficient Algorithm to detect Brain Tumor.
2. To identity the various factors affecting the accuracy of different Algorithm.
3. Test various algorithms based on their working and their hyperparameter.

**Solution and Conclusion**

We tried and tested the following Algorithms:

1. SVM Classifier
2. Convolutional Neural Network
3. Resnet-50
4. Mobilenet

Following were the observations after testing the above algorithms:

1. CNN with ReLu has the highest number of accuracy and the accuracy goes on increasing as we increase the number of epochs.
2. Major drawback for deep learning algorithms is that the time complexity increases if we increase the epochs.
3. From the observation we can conclude that images with more pixel/clarity increases the accuracy