# Detecting Brain Tumors

Presented by Chaitanya Garg

# Origin of the creative idea

In the modern world scenario, AI is doing tasks which humans would either take a lot of time in doing or miss patterns which might lead to false positives or negatives. Hence, there is a need to utilise these ideas to improve human efficiency and provide support in terms of human access.

# Project vision and mission

01. To be able to create a Machine Learning and Computer Vision Model that can take MRI scans and classify if the person has a brain tumor or not

02. To understand the model architecture of Efficient Net and be able to train it properly

03. TO deploy it to the world so that it could truly be put to the use it was designed for

# Inspiration and creativity

I lost my maternal grandfather, he had developed a cist and perhaps early detection was possible and further development could be prevented, perhaps he would be with us today.

About 10 million die due to cancer each year.
So, even if better models could be made and we can swing a way of change perhaps a lot of lives might be saved.

# Creation Pipeline

01

Choice of Dataset: I have choosen a kaggle dataset

02

Understanding the architecture and implementing it

03

Training the model and plotting loss curves

04

Building an app interface and then deploying it to hugging face

# 97%

## Training Accuracy

The model reached an overwhelming 96.6% on training accuracy while the test accuracy is about 92%. The best validation accuracy was about 95%.  I feel its really good given I had limited compute resources on my hand.

# Final reflections and future steps

To test out perhaps other models to test it against even bigger datasets and check for accuracy.
To learn from the results being predicted incorrectly by the deployed model.

# Thank you very much!

My Model