Presentation 1: What you have learned for proposed presentation

# Abstract

Identifying brain tumors found in MRI scans using deep learning techniques is a great way to determine a diagnosis using hundreds of image samples provided by OpenNeuro, Open Cancer Access.

# Detailed abstract

Problem: How to identify a tumor on an MRI scan?

Hypothesis: Using deep learning techniques, a data image set, and algorithms, we can teach a neural network how to identify tumors from MRI scan images.

# Papers used

[Deep Learning for Brain MRI Segmentation](https://link.springer.com/article/10.1007/s10278-017-9983-4)

[Classification using deep learning](https://www.sciencedirect.com/science/article/pii/S2314728817300636)

[Brain tumor classification using deep learning](https://ieeexplore.ieee.org/abstract/document/9328072)

# What I learned for this

## Computer science

1. Artificial Intelligence
2. Machine Learning
3. Deep Learning/Neural Networks
4. Algorithms

## Neuroscience and Medical Imagery

1. MRI and Medical imagery
2. Neuroscience
   1. We are looking at the cerebral cortex where a majority of MRI scans take place.

# Plans to do

## Data Preprocessing

1. Create library of tumors for classification
2. Clean and test images
3. Check images for consistent sizes (50x50)
4. Normalize data.

## Building the CNN

1. The CNN requires the use of packages keras,
   1. NO TENSORFLOW