**Abstract on a model to predict the progression of Alzheimer's disease based on neuroimaging data.**

***Alzheimer's disease* (AD)** is a progressive neurodegenerative disorder characterized by cognitive decline and memory loss, affecting millions globally. Early and accurate prediction of AD progression is crucial for improving patient outcomes and advancing therapeutic interventions. This project aims to develop a predictive model for AD progression using *neuroimaging data, leveraging advanced machine learning techniques* to identify patterns and markers indicative of disease advancement. This approach represents a significant advancement in the use of neuroimaging for predicting AD trajectories.

**Source of Input:**

[Alzheimer's Disease | Download Data | NRGR (nimhgenetics.org)](https://www.nimhgenetics.org/download-tool/AD)

**Outcome of the project:**

Development of a predictive model for Alzheimer's disease progression.

**Project Prerequisites:**

1. Python 3.7.4
2. IDE Jupyter

**Required Frameworks:**

* **TensorFlow**: 2.11.0 (for building and training neural networks)
* **Keras**: 2.11.0 (integrated with TensorFlow for high-level neural network APIs)
* **PyTorch**: 2.0.1 (alternative deep learning framework for building and training models)
* **Scikit-learn**: 1.2.2 (for machine learning algorithms and model evaluation)
* **NumPy**: 1.24.3 (for numerical operations and data manipulation)
* **pandas**: 2.1.0 (for data manipulation and analysis)
* chetna (2320030372), s4