**Project 2. Sequence Classification in Brain functional networks**

**Project description**

The goal of this project is to apply several deep learning techniques to solve problems in the diagnosis of psychiatric diseases, based on the multi-dimensional time series through fMRI. Related methods include attention, encode-decoder model, and graph neural networks.

**Data set.**

1. Training data: 246 samples; testing data 20 samples.
2. Each sample is a csv file, with 240 rows (each row is a time point) and 94 columns (each column is a brain region). Namely the csv file is a multi-dimensional time series.
3. The 94 brain regions are the same for each sample. The time points, though numbered from 1 to 240 for every sample, do not have any correspondence across different samples.

**Task: Choose one of the following methods.**

1. **Use attention mechanism to perform sequence classification**
2. **Use GNN (graph neural networks) to perform classification**

**Report**

1. Details of your algorithm design and performance curve on the training data.
2. Submit the predicted labels of your algorithm for the 20 testing data points (1/0).