README FILE

Converting the dataset consisting of TXT files to CSV:

- Identify the target folder where both the “Training Data” and “Testing Data” folders are present.
- Assign the target to ‘root_folder’ variable and run the cell present in convert_to_csv.ipynb

Parsing the data, extract features, train and test the model:

In cell 2:

Change the path of a user for which you would want to view the data frame. To do this assign appropriate path to “glass_folder_path” and “htc_folder_path”. The path for “glass_folder_path” should end with **/User001/Glass.** Feel free to change User001 to any other one up till User017. Similarly, for “htc_folder_path”, make sure that the folder path ends with **User001/HTC – front.**

In cell 4:

Make sure that the path variable “parent_folder_path” ends with “Data of Head and Torso movement\data\Training Data\”

This cell takes in all the Users’ gyroscope data from Glass and HTC-front and trains the model.

In cell 5:

Make sure that both the path variables “glass_folder_path_test” and “htc_folder_path_test” ends with “Data of Head and Torso movement\data\Testing Data\”.

Use any one of the 2 paths and comment out the other one.

Note: When you plan to use HTC – front, please make the following changes:

- user_folder_path = os.path.join(parent_folder_path, f'**User002**'): Pass any user folder of you choose from User001 to User017
- glass_file_path = os.path.join(user_folder_path, **'HTC - front/gyroDataM.csv'**): If you plan to use glass data for testing, please replace ‘HTC - front’ with ‘Glass’ and ‘gyroDataM.csv’ to ‘gyroData.csv’

Input Provided:

A dataset containing various sensor data of 17 users.

Output Obtained:

The result of the predicted user with device information. Example: [‘User001_glass’] or [‘User001_htc’] and the result if the predicted user can be allowed access or not.