

EEG P300

An executable (.exe) from a python script for p300 segment extraction using different channels

data

The program requires a csv file with different eeg channels.

input_eeg_data.csv [sample data from MUSE EEG headset]

```
TimeStamp,Delta_TP9,Delta_AF7,Delta_AF8,Delta_TP10,Theta_TP9,Theta_AF7,Theta_AF8,Theta_TP10,Al
15:06.0,0.27492267,0.46229774,0.621691,0.44646338,0.6346841,-0.2122276,-0.001418099,0.3284156,
15:06.0,0.27492267,0.46229774,0.621691,0.44646338,0.6346841,-0.2122276,-0.001418099,0.3284156,
15:06.0,0.27492267,0.46229774,0.621691,0.44646338,0.6346841,-0.2122276,-0.001418099,0.3284156,
15:06.0,0.27492267,0.46229774,0.621691,0.44646338,0.6346841,-0.2122276,-0.001418099,0.3284156,
15:06.2,0.27492267,0.46229774,0.621691,0.44646338,0.6346841,-0.2122276,-0.001418099,0.3284156,
15:06.0,0.27492267,0.46229774,0.621691,0.44646338,0.6346841,-0.2122276,-0.001418099,0.3284156,
```

usage

python main.py or main.exe

other params

```
'-i','--input_file', default = "muse_data.csv",
    help='input csv file path'
```

```
'-c','--channels', dest = 'channels', default = "all_TP10",
    help='comma separated channel names'
```

```
example: python main.py -c Alpha_TP10,Beta_TP10
or,      main.exe -c Alpha_TP10,Beta_TP10
```

Note: don't add any space between commas

```
'-s','--scaling_factor', dest = 'scaling_factor', default = 0.6,
    help='scaling factor for signal comparing with mean'
```

```
'-d','--div_factor', dest = 'div_factor', default = 1.21,
    help='div factor for signal comparing with mean'
```

```
'-e','--epoch', dest = 'epoch', default = 420,
    help='number of samples to use for epoch'
```

```
'-v', '--visualize', dest = 'visualize', default = "no",  
    help='Visualize the plots or save them'
```

converting to exe

- install anaconda, create a virtual environment, install pyinstaller and run

```
pyinstaller --onefile main.py
```