Meeting 4

09/30/2021

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Deliverables

Run function(changePeaks_epochDetect()) with biometric variable

Plot the biometric variable over time

Overlay epoch borders from changePeaks_epochDetect() function

Methodology and Learnings

How did I do it?

- Learn about EEG_Data and epochs
- Run changePeaks_epochDetect()

What did I learn on the way?

- EEG and epoch
- Functions

Results

```
E_dict = changePeaks_epochDetect(output['F7'], 10, 5, 2000)
print(E_dict)
```

```
uche@Boo-VirtualBox:~/Documents/SeniorDesign/EEG_DATA$ python3 epoch_Function.p
y
slice(14999, -14999, None)
{'1': [0, 31612], '2': [31612, 45450], '3': [45450, 55465], '4': [55465, 15002]
, '5': [15002, 146850], '6': [146850, 122304], '7': [122304, 136699], '8': [136
699, 90784], '9': [90784, 111895]}
uche@Boo-VirtualBox:~/Documents/SeniorDesign/EEG_DATA$
```

```
uche@Boo-VirtualBox:~/Documents/SeniorDesign/EEG_DATA$ jupyter notebook
[I 07:39:22.182 NotebookApp] Serving notebooks from local directory: /home/uche
/Documents/SeniorDesign/EEG_DATA
[I 07:39:22.182 NotebookApp] Jupyter Notebook 6.4.4 is running at:
[I 07:39:22.183 NotebookApp] http://localhost:8888/?token=e407b982ceb4516a4f4b1
7e5ee2e72d7ad25e18ae5ab4745
```

Results

```
import pandas as pd
import matplotlib.pyplot as plt
import datetime
df = pd.read_csv('log.csv')
dt = datetime.datetime.now()
dt = dt.replace(hour=0, minute=0, second=0, micr
print(dt)
#time = [datetime.datetime.now()+ datetime.timede
time = [dt + datetime.timedelta(milliseconds=i) f

# convert column to array
column = df.loc[:,'FCz']
#plot
plt.plot(time, column)
#define title, x,y label and limit
plt.title("EEG_DATA")
plt.xlabel('Time')
plt.ylabel('FCz')
#display
plt.show()
```