

Meeting 3

9/23/21

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Deliverables

- Read data using the EEG_read function and python script
- Do something with the data
- Familiarize with JSON files for Tobii Pro data

Methodology and Learnings

How did I do it?

- Created python script and downloaded files
- Pandas user guide
- Brain function map - <https://www.harmonizedbraincenters.com/post/the-brain-and-its-functions>
- Watched video on JSON files

What did I learn on the way?

- Pandas chart visualization
- Functions of the brain
- JSON files

Results

```
if __name__ == '__main__':
    df = read_eeg("./2020_06_04_T05_U00T_EEG01.vhdr")

    # Generate summary description of dataframe
    pd.set_option('display.max_rows', 500)
    pd.set_option('display.max_columns', 500)
    pd.set_option('display.width', 1000)
    print(df.describe())

    # Find correlation between heart rate and F7 activity
    print(df["HR"].corr(df["F7"]))

    # Print scatter plot
    df.plot.scatter(x="HR", y="F7")

    # Correlation between F7 and F8
    print(df["F7"].corr(df["F8"]))

    # Print basic plot
    df.plot(x="F7", y="F8")
    plt.show()
```

	Fp1	Fp2	...	Packet Counter	TRIGGER
count	146884.000000	146884.000000	...	146884.00000	146884.000000
mean	-0.008107	-0.004131	...	16382.82235	35817.143658
std	0.000832	0.000471	...	9851.00704	819.799047
min	-0.008647	-0.004730	...	0.00000	8888.000000
25%	-0.008531	-0.004389	...	7344.00000	35842.000000
50%	-0.008472	-0.004243	...	16382.00000	35842.000000
75%	-0.008417	-0.004142	...	25423.00000	35842.000000
max	-0.005583	-0.002327	...	32767.00000	35843.000000

[8 rows x 82 columns]

0.7852091450581674

0.934856259138773

Results – continued

