(https://profile.intra.42.fr/searches) ytaousi

(https://profile.intra.42.fr)

SCALE FOR PROJECT TOTAL-PERSPECTIVE-VORTEX (/PROJECTS/42CURSUS-TOTAL-PERSPECTIVE-VORTEX)

You should evaluate 1 student in this team

★

Git repository

```
git@vogsphere-v2-bg.1337.ma:vogsphere/intra-uuid-eb444b16-2c1b-4116-
```

Introduction

To ensure this evaluation goes smoothly, please respect the following set of rules :

- Please remain courteous, polite, respectful and constructive at all times during this exchange. The trust bond between the school's communauty and yourself depends on it.

- Should you notice any malfunctions within the submitted project, make sure you take the time to discuss those with the student (or group of students) being graded.

- Keep in mind that some subjects can be interpreted differently. If you come accross a situation where the student you're grading has interpreted the subject differently than you, try and judge fairly whether their interpretation is acceptable or not, and grade them accordingly. Our peer-evaluation system can only work if you both take it seriously.

Guidelines

- You may only evaluate whatever is in the GiT submission directory of the student you are grading.

- Make sure to check wether the GiT submission directory belongs to the student (or group) you're grading, and that it's the right project.

- Make sure no mischievous aliases have been used to trick you into correcting something that is not actually in the official submitted directory.

- Any script created to make this evaluation session easier - whether it was produced by you or the student being graded - must be checked rigorously in order to avoid bad surprises.

- If the student who is grading this project hasn't done the project him/herself yet, he/she must read the whole topic before starting the evaluation session.

- Use the flags available to you on this scale in order to report a submission directory that is empty, non-functional, that contains a norm errors or a case of cheating, etc...
In this case, the evaluation session ends and the final grade is 0 (or -42, in case of cheating). However, unless the student has cheated, we advise you to go through the project together in order for the two (or more) of you to identify the problems that may have led for this project to fail, and avoid repeating those mistakes for future projects.

Attachments

subject.pdf (https://cdn.intra.42.fr/pdf/pdf/83234/en.subject.pdf)

Preprocessing

Watch it for the plot

Check if the data were parsed then visualized with a script, showing raw and filtered data.
The plots should look like what is shown in the video, the filtered signal being "cleaner".

✓ Yes ✕ No

Feature extraction

Its nice to filter a signal, but it needs to mean something in the context of your data. Check that the significative frequencies for a motor imagery task are kept (~8-40Hz).
If the program learns to select the relevant frequencies for classification its better, cf bonus questions.

✓ Yes ✕ No

Classification Pipeline

Train

The program has a train mode, sklearn score validation tools are used.
The score for the training is displayed.

✓ Yes ✕ No

Predict

There is a predict mode, which also uses validation tools.
The prediction output is displayed (the id of the output class is enough).

✓ Yes ✕ No

Realtime

The prediction is made as the data is streamed to the processing pipeline.
The program outputs the result between 0 and 2 seconds after the event was triggered.

✓ Yes ✕ No

Implementation

Integration

Implementation was integrated to sklearn pipeline, inheriting from the baseEstimator and transformerMixin classes of sklearn.

✓ Yes ✕ No

Implementation

A dimensionality reduction algorithm is implemented, the subject talks about PCA and CSP but other algorithms performing a dimensionnality reduction are feasible.
Check that the student has a general understanding of the algorithm.
It is allowed to use functions from libs like numpy or scipy for some tasks
: the eigenvalues decomposition, singular values decompositon and covariance matrix estimation.

✓ Yes ✕ No

Score

There has to be a script executing training over each subject and computing the mean of scores over each subjects, by type of experiment runs.
The mean of the resulting six means (corresponding to the six types of experiment runs) has to be superior or equal to 60%.

✓ Yes ✕ No

Score

Over 60% add a point for every 1%.

Rate it from 0 (failed) through 5 (excellent)

○

Bonus

Datasets

Are there other datasets processed by the program ?
Is the scoring on those datasets correct ?
Try to assert this taking into account the noise and the general quality of the dataset compared to the one given in the subject.

✓ Yes ✕ No

Feature engineering

Try to evaluate the relevance of the preprocessing stage and how are the data feeded to the algorithm. The use of fourier or wavelet transform, and anything that transform the data before the processing is a plus.

✓ Yes ✕ No

Implementations

Evaluate the following points :\
How deep did the student dig into his implementation ?
(Did he implement his own eigenvalues decomposition, SVD, or covariance matrix estimation ?)
(Did he implement a complex dimensionality reduction algorithm ?)
Is there some kind of hyperparameter tuning or learning ?
Did he implement his own classifier ?

✓ Yes ✕ No

Ratings

Don't forget to check the flag corresponding to the defense

✔ Ok ★ Outstanding project

Empty work Incomplete work Cheat Crash ⊘ Forbidden function

Conclusion

Leave a comment on this evaluation

Finish evaluation

Declaration on the use of cookies (https://profile.intra.42.fr/legal/terms/2) Privacy policy (https://profile.intra.42.fr/legal/terms/5) General term of use of the site (https://profile.intra.42.fr/legal/terms/6) Rules of procedure (https://profile.intra.42.fr/legal/terms/4) Terms of use fc (https://profile.int