Pupil Tutorial

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Please contact harry2@stanford.edu with any problems/questions about this pipeline.

Contents

Setting Up

i. Download python 3.6 from anaconda from this link: https://www.anaconda.com/download/

ii. Follow this link: https://github.com/harrysha1029/pupil and clone the repository.

iii. Put data in a convenient folder, preferably the same one, especially if you plan to run multiple files at the same time.

iv. Change behavioral data into the events format

Events Format

Behavioral data is used to epoch the pupil data. For this to work, the pupil pipeline requires this data to be of a specific format which is described in this section.

The behavioral file should be a MATLAB (.mat) file containing a variable named first, and another variable named events. first should be a float marking the time of the first onset of the behavioral data. This is aligned to

Parameters

Check out the parameters.py file for details about the parameters that are taken by the pipeline.

Running

To run the code:

i. Open terminal (mac, linux) or command prompt (windows)

ii. cd into the pipeline

iii. `python pupil_pipeline.py <parameters>`

where <parameters> is replaced with the name of your parameters file.

If no parameters file is provided, the pipeline will read from parameters_default.py

Outputs

Merging

Gather

gather.py is a tool that helps extract all the epoched files (either .pkl or .mat) in all the subfolders of a selected folder.

Merge

Run merge.py like the pipeline

```
python merge.py <parameters>
```

When prompted, select the folder containing all the epoched files that you are analysing.

Explanation of interpolation method