**Xiaoting’s EEG Meeting Note 3\_6\_2025**

* About me and project
  + Jan 1st semester Spring 2024
  + Pupil, Expatica (ACC, BVP, GSR, TEMP)
  + Aha! Moment Prediction
  + Cognitive Load Classification

New 🡪 EEG

* Experiment
* Raw data
  + <https://gofile-376355466d.us1.quickconnect.to/sharing/qT53H6ArV>
  + If you cannot access, please contact Xuanchang

A screenshot of a computer

AI-generated content may be incorrect.



* Tools
  + **EEGLab:** EEG
    - MATLAB
    - Install EEGLab
    - Import raw data
    - Filer data
    - ICA
    - Remove bad components
    - Output data
    - Baseline -> weights (clean weights (min - max), processed ICA
    - Training 🡪 weights exported from baseline, clean weights (min - max), remove signals not in (min - max) 🡪 processed ICA
    - Exam 🡪 weights exported from baseline 🡪 processed ICA
  + **Pupil Player:** Pupil raw file to csv format

A logo of a play button

AI-generated content may be incorrect.

* Data preprocessing: in python
  + OSHA: json, csv
  + EEG, csv
  + Pupil, csv
* Label Setting
  + Define your ground truth
  + Relax, Attention, Impasse, Aha!
* Feature Extraction
  + Statistical
  + Frequency Band (EEG)
* Model Selection: ML, DL
  + KNN
  + RF
  + XGBoost
  + LSTM
  + FCNN
  + CNN
  + RNN