Installing meeg-tools

Glimpse into Python software development setup

Setting up Python

Feel free to skip the next slide if you already have:

- A package manager that handles virtual environments and you know how to use it
- An IDE that you love and where you can work on projects cloned from a GitHub repository

Recommended setup and tools

1. Install ANACONDA for package management
   Follow the instructions here, you might need to add it to PATH
   Remember where you installed it :)

2. Install PyCharm and use it as your favourite Python IDE
   PyCharm is a great tool for Python with an integrated terminal, possibility to integrate with Git (version control), and most importantly to handle virtual environments created with e.g. conda

   You should install ANACONDA before installing PyCharm (for Windows)

Setting up Git

Feel free to skip the next slide if you already

- Know the basics of version control
- Cloned the repository to your computer

Setting up Git

1. Create or login to your GitHub account
   Even if you are not planning to contribute to a repository,
   it is good to have it.
2. For Windows, download GitHub Desktop
3. (useful) Authorize your GitHub account in PyCharm
   Once you import a version controlled project in PyCharm,
   you will see the modifications you made on your computer,
   you can contribute or create modified versions of this repository.
4. Go to https://github.com/weiglszonja/eeg-workshop and follow the instructions how to clone the repository (next slide)

Setting up a project

Feel free to skip the next slide if you already

- Imported this project to your IDE
- Installed successfully all package requirements in a virtual environment

1. For Windows, open GitHub Desktop and clone the repository
   Use the URL or git@github.com:weiglszonja/eeg-workshop.git

2. Open PyCharm (or your IDE) and import the project you just cloned
   Once you import a project, you have to setup a python interpreter, it is recommended to use a separate virtual environment for each project to avoid having inconsistent package versions between projects.

3. Create the virtual environment in PyCharm using conda
   The whereabouts of this setting is OS specific, check this
   (for macOS it under “Preferences” and “Python Interpreter”)

   Using the scroll-down select “Show all”, then click the plus sign to add a new **Conda Environment**

4. Locate your conda executable (the folder where you have installed Anaconda) e.g. /Users/weian/opt/anaconda3/bin/conda

   if you see a “conda executable not found” error message then you should go back to Anaconda and try to figure out why your system is not able to find conda in PATH. Google is our dearest friend.

5. Select the Python version 3.7 or 3.8

   IMPORTANT! Python version should be **3.7** (or 3.8) **!!!!**

6. Click OK

7. Open Terminal in PyCharm (bottom tab bar) and type
   pip install –r requirements.txt

   This command will install the package and its dependencies (which are defined in requirements.txt)

   If you are having an issue with installing `jupyter` on Windows, you have to install the `pywin32` package too:

   pip install pywin32

8. Open a Python Console in PyCharm (bottom tab bar) and type
   import meeg_tools

   This command should return no errors, if it does, let me know.

At this point

- You already cloned the repository
- You have installed the project dependencies in a virtual environment
- Good news is you only have to do this once :)