Basic Programming

Final Project Weekly Update

Aim

Summary of multiple topics that might benefit you on your final project.

Why do we even have the final project? Watch: https://www.youtube.com/watch?v=s6dMWzZKjTs

Overview

- How to write weekly update
- GitHub
  - Learn and download others' codes
  - Use GitHub to show your proof of work

Write Weekly Updates

1. Open with Google Slides on https://docs.google.com/presentation/d/1AUmmJCENoASK-sIwdadiyHi0D_FeE9Tishg25ttJEak/edit?usp=sharing
2. On your presentation. The first pages summarize what have been done **this week** on the left column and what to do **next week** on the right column with links to your work.
   - The link must be open access (not invited-only).
   - Recommend to use Google Drive links or your GitHub links (will explain later)
3. The second and/or third pages show the print screens of the highlights of your weekly work

Write Weekly Updates

Note:

- Your what have done **this week** don't need to always succeed
- If you get stuck at the same problem/bug for a long time, please consult me. We will try to figure it out together
- Your what to do **next week** can be a bit different from your original plan from proposal.
- No matter how small or big your progress each week is, please show me some proof of work (links or print screen).

Week of 04/04/22 (example)

This week 04/04/22

Radiation Treatment Planning (RTP) project:

- study how to determine plan quality
  - proof: note on literature reviews + radiologist interview

Sklearn project:

- pull request example in outlier detection benchmark
  - proof: try to push example

Next Week

Radiation Treatment Planning (RTP) project:

- study how to determine plan quality
  - proof: note on literature reviews + radiologist interview
- AI in RTP
  - proof: code 2 classes 2D segmentation

Sklearn project:

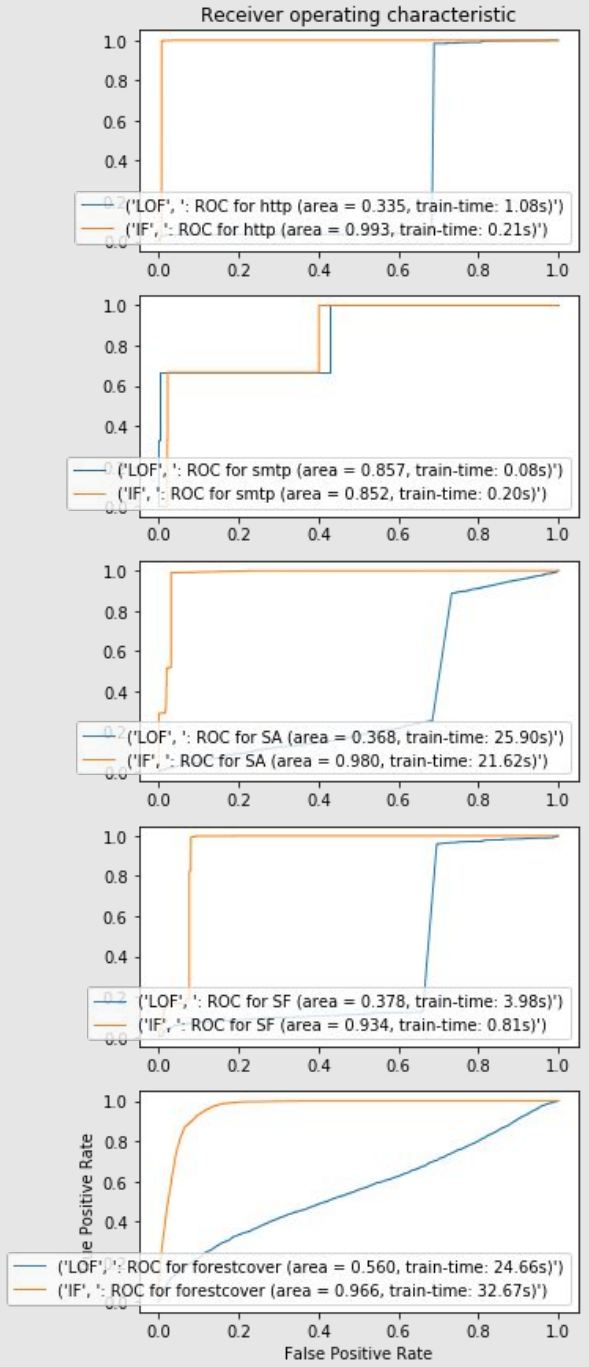
- pull request example in outlier detection benchmark
  - proof: adjust example
  - proof: get merged

Mai (Example 1)

Sklearn project:

Example using real world data from `sklearn.datasets`

Compare the performance between Local `Outlier Factor (LOF)` and `Isolation Forest (IF)`



This week 11/04/22

Radiation Treatment Planning (RTP) project:

- study how to determine plan quality
  - proof: note on literature reviews + radiologist interview
- AI in RTP
  - proof: code 2 classes 2D segmentation

Sklearn project:

- pull request example in outlier detection benchmark
  - proof: updated example ,get merged → need decision

Next Week

Radiation Treatment Planning (RTP) project:

- study how to determine plan quality
  - proof: note after Bumrungrad hospital visit
- ~~AI in RTP~~
  - ~~proof: code 2 class 2D segmentation~~

Sklearn project:

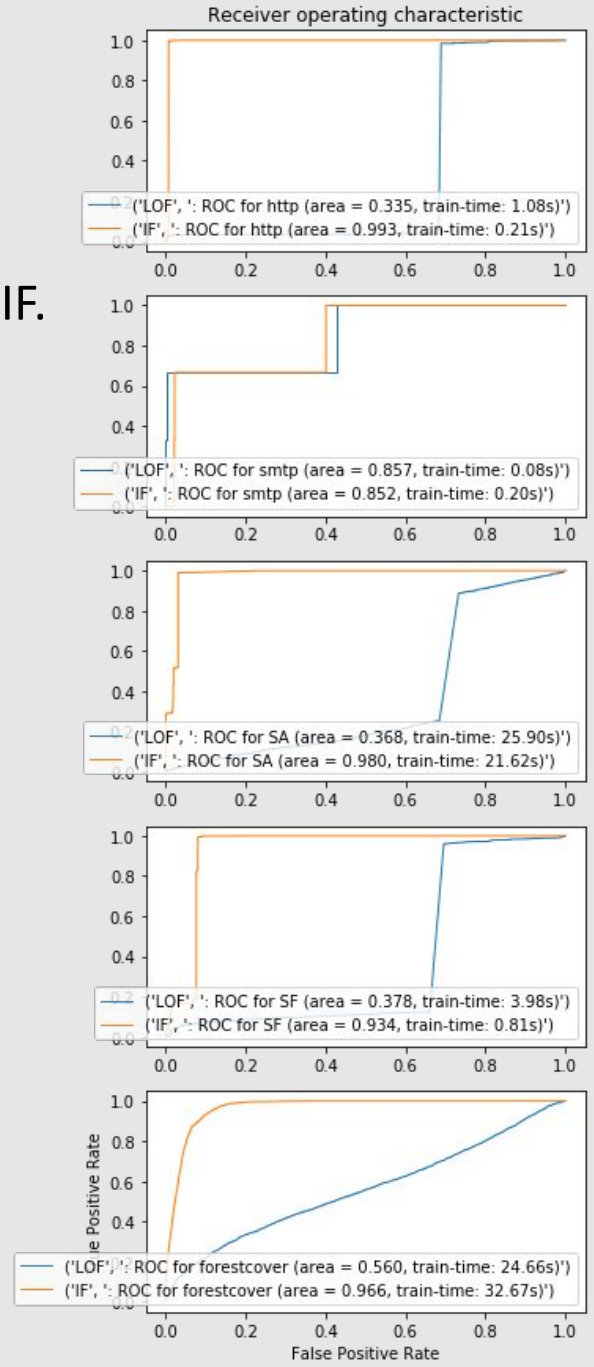
- `need decision` from Sklearn's core-developers

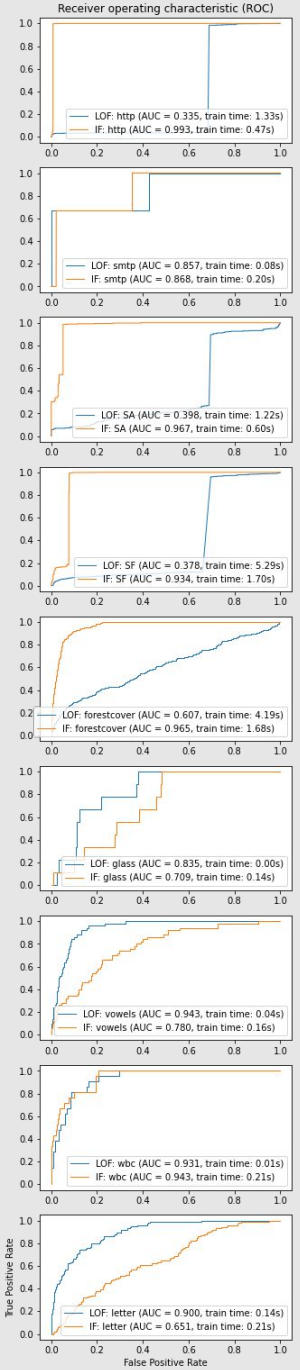
Mai (Example 1)

Sklearn project:

Example using real world data from `sklearn.datasets` compare between LOF and IF.

Developers want to show examples that LOF outperform IF too.





GitHub

GitHub: is a website & cloud-based service that help developers track and control the change of their code

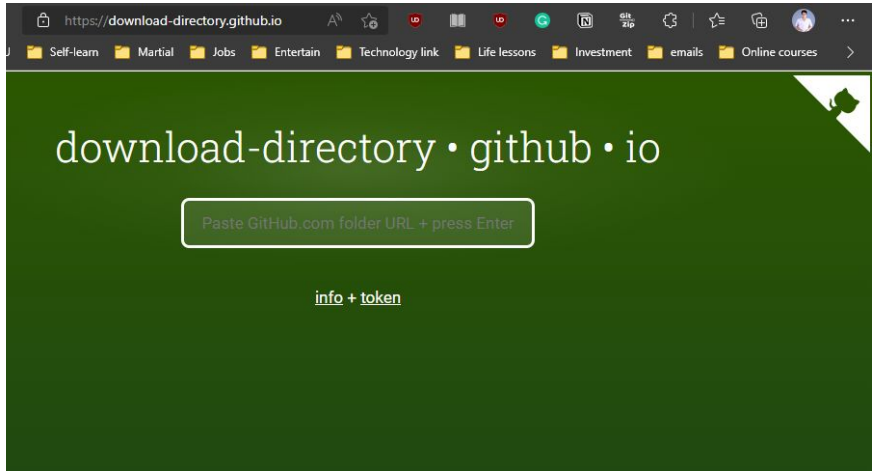
Benefits

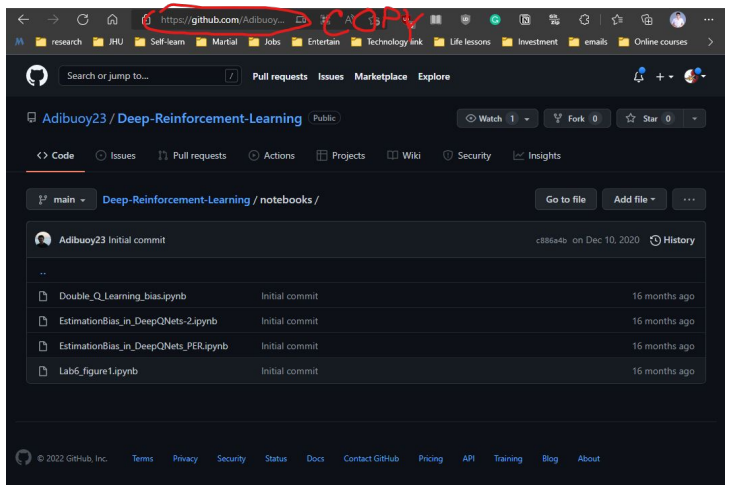
1. Track the code versions (don't need to save as code_day1, code_day3)
2. Help developers work on the same code (pull request or check before update system)
3. Common place to use, share and update the codes as well as contribute to the developers' community. Ex: fixing some bugs in Numpy or sklearn

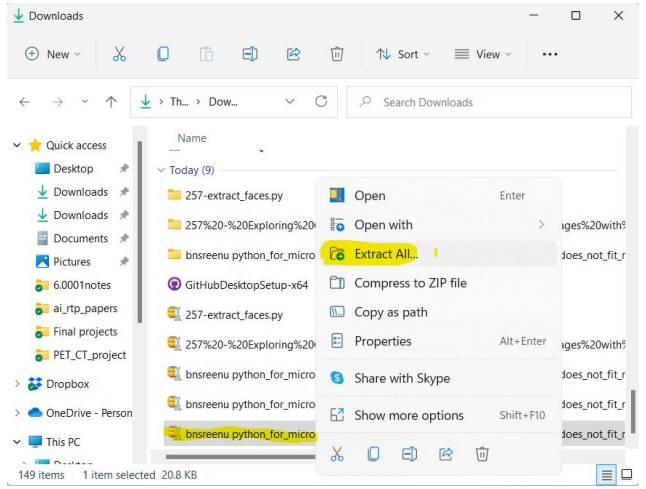
GitHub

Download specific files ref: https://stackoverflow.com/questions/7106012/download-a-single-folder-or-directory-from-a-github-repo

- Go to Download Directory or DownGit
- Copy the URL of the GitHub page you want to use → download zip file → extract zipfile (right click, extract all)







GitHub

More info about GitHub ref: https://www.youtube.com/watch?v=8Dd7KRpKeaE

- ❑ Install GitHub Desktop and register GitHub account
- ❑ Learn about private and public repository and license
- ❑ Learn how to create repository
- ❑ Learn how to commit your work, push it, merge it.
- ❑ Learn how to revert your work incase you make a mistake on the current version (very useful feature)

Week of 04/04/22