

Version control with GitHub practice

Experiential Data science for Undergraduate Cross-disciplinary Education

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Version control with GitHub practice

These problems are designed to help you practice concepts and functions covered in the ‘Version control with GitHub tutorial’.

To complete all exercises, please complete the steps in the ‘GitHub tutorial’ and find a partner to work with.

Learning objectives

- Practice Unix command line
- Share and modify a version controlled file using GitHub

Practice

1. Create and use a GitHub repo
 - Find a directory on your computer that you wish to version control and share on GitHub. Initialize it as a repo, add/commit files within the repo, and link it to your GitHub.
 - Make changes in one or more files on your computer and push to your GitHub.
 - Which types of files can you easily see changes in? Which types is it difficult to see specific changes in? Think about how well-crafted commit messages may help with this issue!
 - Make changes in one or more files through GitHub online.
 - How do you bring these changes to your local repo?
 - If you decide you prefer the version on your local computer, how would you force GitHub back to this version?
2. Collaborate on GitHub
 - This exercise simulates what is would be like to collaborate on the same repo with another person.
 - In pairs:
 1. UserA: Use `git clone` to copy the `TestRepo` from UserB.
 2. UserB: Make a change to `README.md` in your local repo on your own computer and `push` that change to your GitHub.
 3. UserA: Update your copy of UserB’s repo.
 4. Switch roles!