

3- Intro to Git

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October 17, 2024

1 Objective

Develop familiarity with Git, the most common version control system for programmers, and upload your first program to Github!

2 Overview

Git is very very useful to allow multiple people to work on the same codebase in parallel. At the same time, it can be a bit intimidating to start up, and it's easy to fall into some common beginner traps. We'll try to upload our previous numpy assignments as our exercise for the week, to get a feeling for how code enters a codebase. Note that if you're stuck on how to run git commands you can always run `git help` to get a refresher.

3 Instructions

3.1 Configuring Git

- Create an account at GitHub's **website**. I recommend using an email other than your Cooper email so you can access your code even after graduating!
- Download **git** to your local machine.
- Follow **this page** to connect your local machine to GitHub via SSH.
- Configure your GitHub username and email by entering:

```
git config --global user.name "Your Name"
```

```
git config --global user.email "yourEmail@web.site"
```

3.2 The Repo, Man!

- Fork the AIAA Controls **Github repository**, then clone it to your local machine by entering `git clone git@github.com:yourUsername/aiaa-glider-controls.git`.
- Create a new branch to work on by entering `git checkout -b yourBranchName`. To access a particular branch that you've created at a later point, enter `git checkout yourBranchName`.
Note 1: Please do not literally use "yourBranchName" as your branch name.
Note 2: MAKE SURE YOU DON'T COMMIT CHANGES DIRECTLY TO MAIN! This is the easiest way to cause merge conflicts, which is essentially a headache that I'll have to untangle.
- Copy your submission for Assignment 2 to the `np_submissions` directory.
- Stage your file submission by using `git add`, then check that the file is staged by running `git status`.
- Run `git commit -m "Your commit message here"` to commit your edits, then run `git push origin yourBranchName` to push the changes to main.
- Go back to the AIAA repository, click on the "Pull requests" tab, and create a pull request using your branch. Write a brief explanation of what you've changed or added, then I will examine what you've submitted before merging.
- As a final check, go to the "Issues" tab and comment on the "How did the numPy assignment go?" issue.