

Git Introduction

Git is a software version control tool. It keeps track of software development history and helps enable quality control and good workflows. It works well for small or large projects as well as in a single developer or multi developer environment.

GitHub is an online Git repository (online place to store the git history of the project). GitHub implements Git and enables collaboration on software projects. In fact, many of the open source tools such as [Jupyter](#), and [Matplotlib](#), are open source projects hosted on GitHub which use Git and GitHub for development.

It is important for us to use Git in this course because:

1. It will enable better collaboration between faculty and students.
2. I will enable better collaboration between students.
3. Working within a version control system is an important professional skill.
4. Working collaborative on a team project using Git is an important professional skill.
5. A GitHub presence is an important part of your professional networking and can lead to job opportunities.
6. Working within sound development processes leads to better problem solutions.

Resources:

Some good resources to get started with git are:

- ☐ There is an online [Git tutorial](#). You will complete many of these same things in setting up this assignment.
- ☐ The git book which is available [online](#), as a [pdf](#), or for [purchase](#).
- ☐ Especially important for the beginner are sections [1.0 – 1.4](#), [2.1 – 2.5](#) and [3.0 – 3.5](#).
- ☐ It is good to understand the GitHub workflow. There is a [quick introduction](#), and a [longer discussion](#) which contrasts GitHub workflow with [git-flow](#).
- ☐ Key concepts in git include: [clone](#), [commit](#), [push](#), [pull](#), and [branching](#).

Downloading and Installing Git on your Computer

To install Git on your computer, follow the directions in the software installation document.

Create a GitHub Education User Account

1. If you don't already have a GitHub Account, go to <https://github.com/join> and create one.
 - a. GitHub is used by future employers so think professionally in choosing your username.
 - b. Feel free to choose a free plan. In the next step you can upgrade to a student account which gives you unlimited private repositories for free.
2. Change your GitHub account to a student account, and get the [Student Developer Pack](#).
 - a. Go to <https://education.github.com/pack>

Join our GitHub Class

1. Try going to <https://github.com/UCO-CSP> and send a request to join the organization.
2. If there is no option to join the organization, send [Dr. Holmes](#) an email with your GitHub user name. His email is wholmes3@uco.edu.