

Git Workshop

What Is Git?

- ▶ git is a version control system

What is Version Control?

- ▶ We have all made a mistake when writing code and wanted to go back
- ▶ Version control systems allows us to do that
- ▶ Also allows for better collaboration

What Is Github

- ▶ Where you make your code available for others
- ▶ Youtube but for git instead of videos
- ▶ Provides features for collaboration, testing and much more
 - ▶ Some will be cover later in this workshop
- ▶ Alternatives
 - ▶ Gitlab, Bitbucket, etc

Installing git

go to <https://git-scm.com/downloads> - Windows - Mac - Linux

The Terminal

- ▶ Windows
 - ▶ Just open git bash
 - ▶ Unless you know powershell
- ▶ Mac
 - ▶ Terminal
- ▶ Linux
 - ▶ You probably know

Why

- ▶ Often the fastest way to get things done
- ▶ Find out what the GUI is doing under the hood
- ▶ Think of it as a more picky Google assistant

Creating A Repo

- ▶ `mkdir git_workshop`
- ▶ `cd git_workshop`
- ▶ `ls -a`
 - ▶ The -a is for all
- ▶ `git init`
- ▶ `ls -a`
- ▶ You will now see a `.git` file
 - ▶ This is your local repository
 - ▶ It holds all the version control data for git

Adding A Change

- ▶ In the `git_workshop` directory lets create a file
 - ▶ `touch README.md`
- ▶ Now we need to tell git to start track add this change
README.md
 - ▶ `git add README.md`

Committing A Change

- ▶ Now that git has tracked the creation of README.md lets **commit** it
 - ▶ Commits are similar to checkpoints in a video game
 - ▶ using `git commit` we can commit this change

Commit Messages

- ▶ Message explaining what changed since the last commit and why
 - ▶ Lets just make our git message something like added empty README file
 - ▶ To do this we run `git commit -m "added empty README file"`
 - ▶ Often commit messages are one line
 - ▶ An additional `-m` flag allows for adding more details

Lets Put It On Github

The screenshot shows the GitHub homepage. At the top is a dark navigation bar with the GitHub logo, a search bar, and links for Pull requests, Issues, Marketplace, and Explore. On the right of the bar are notification, user, and organization icons. A dropdown menu is open from the user icon, showing options: 'New repository' (highlighted in blue), 'Import repository', 'New gist', 'New organization', and 'New project'. The main content area is divided into three columns. The left column, 'Repositories', has a 'Now' button and a search bar, followed by a list of repositories: Gavinok/dotvim, Gavinok/dots, Gavinok/vim-troff, Gavinok/scripts, Gavinok/highlight, Gavinok/Groff-resume, and Gavinok/pass. Below this is a 'Show more' link and a 'Working with a team?' section. The middle column, 'Recent activity', lists four recent issues opened by Gavinok/vim-troff: 'add /usr/share/nvim/runtime/doc/motion.txt mapping for right and left in eqn', 'use -mtrc for creating proper completion for groff files', 'comment boundaries for [* and]*', and 'add troff.vim settings for colors'. Below this is a 'Show more' link and an 'All activity' section showing a star from user jdhao to google/re2. The right column contains a 'Join us' card, a 'GitHub for mobile' card with App Store and Google Play links, and an 'Explore repositories' section listing system76/coreboot and magit/magit.

Repositories Now

Find a repository...

- Gavinok/dotvim
- Gavinok/dots
- Gavinok/vim-troff
- Gavinok/scripts
- Gavinok/highlight
- Gavinok/Groff-resume
- Gavinok/pass

Show more

Working with a team?

GitHub is built for collaboration. Set up an organization to improve the way your team works together, and get access to more features.

Create an organization

Recent activity

- add /usr/share/nvim/runtime/doc/motion.txt mapping for right and left in eqn**
Gavinok/vim-troff · You opened this issue 5 days ago
- use -mtrc for creating proper completion for groff files**
Gavinok/vim-troff · You opened this issue 5 days ago
- comment boundaries for [* and]***
Gavinok/vim-troff · You opened this issue 5 days ago
- add troff.vim settings for colors**
Gavinok/vim-troff · You opened this issue 5 days ago

Show more

All activity

jdhao starred **google/re2** 8 hours ago

google/re2 ☆ Star

RE2 is a fast, safe, thread-friendly alternative to backtracking regular expression engines like those used in PCRE, Perl, and Python. It is a C++ ...

C++ 5.2k Updated Oct 28

New repository

- Import repository
- New gist
- New organization
- New project

Join us
Join us for 30 days of free trial and the rest of the year.

GitHub for mobile

Projects, ideas, & code to go. Available natively for Android and iOS.

Download on the **App Store**

GET IT ON **Google Play**

Explore repositories

- system76/coreboot**
Fork of Coreboot repo
- magit/magit**
It's Magit! A Git porcelain inside Emacs.

Pushing To The Git Repository

- ▶ Using github as your remote repo `git remote add origin 'https://github.com/<YourGithubAccount>/<RepoName>.git'`
- ▶ Then we **push** our changes to github `git push -u origin master` or `git push --set-upstream origin master`
- ▶ Now lets check on the repository
 - ▶ Refresh the github page and it should now show your README.md

Quick Github Tour

- ▶ Issues
- ▶ Pull Requests

Forking

- ▶ What is a fork
- ▶ Why make a fork?
 - ▶ Try messing with the code
 - ▶ Creating a pull request

Lets Fork

- ▶ Go to https://github.com/Gavinok/git_workshop
- ▶ In the top right you will see a fork option
 - ▶ Click it
 - ▶ Now you will have your own version of the notes on this workshop
- ▶ Use `git clone`
`https://github.com/<YourGithubAccount>/git_workshop`
to get access to your fork

Lets Create A Pull Request

1. Make a change to the README.md file
2. Add, commit, and push this change to your fork
3. Click the green New or New Pull Request button
4. Set compare changes across forks
5. Compare your fork and make a pull request
6. Click create pull request
7. explain what was changed in your fork
8. Click the create pull request below the text box and you are done

Self Promo

- ▶ Check me out on Youtube

More Resources

- ▶ collections of git resources on Github
- ▶ guides on Github outside of git