

Welcome to the Wonderful World of GitHub

UGIC 2016

Get started by downloading these applications
- desktop.github.com
- github.com/jlord/git-it-electron/releases

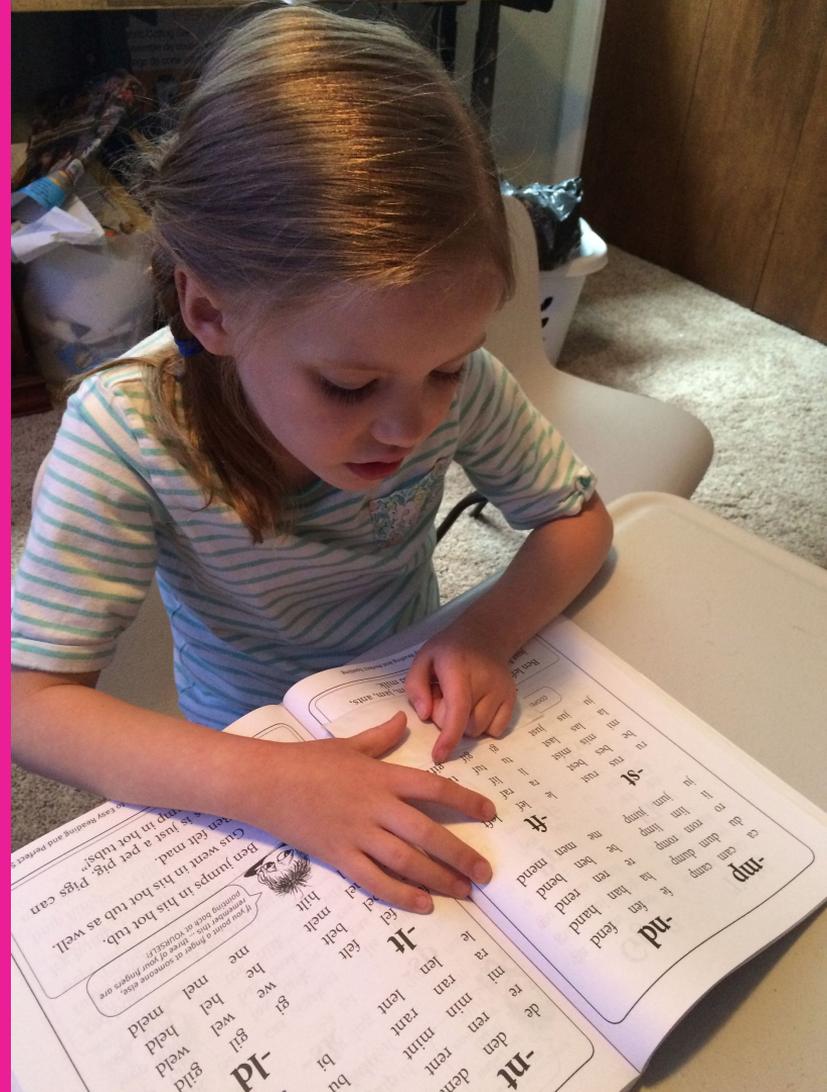
Slides: goo.gl/7MkWi0 (zero)

Required Software

- GitHub Desktop (desktop.github.com)
- Git-it (github.com/jlord/git-it-electron/releases)
- Text Editor (Atom, Sublime, Notepad, etc...)

Git-what?

Git is hard, but
you can do it!





Git

Version Control System

From the source code's readme:

GIT - the stupid content tracker

"git" can mean anything, depending on your mood.

- random three-letter combination that is pronounceable, and not actually used by any common UNIX command. The fact that it is a mispronunciation of "get" may or may not be relevant.

- stupid. contemptible and despicable. simple. Take your pick from the dictionary of slang.

- "global information tracker": you're in a good mood, and it actually works for you. Angels sing, and a light suddenly fills the room.

- [one more definition that has been redacted]



Revision history

April 22, 2:28 PM

■ Scott Davis

April 22, 12:27 PM

■ Scott Davis

[Restore this revision](#)

April 22, 11:22 AM

■ Scott Davis

April 22, 9:34 AM

■ Scott Davis

Put Git-it & GitHub Desktop downloads on a few flash drives to help with downloading it.

Start it downloading first thing then start into intro slides

Post word definition pages on board as we go through - poster putty

- Repository: A folder within which changes are tracked
- Commit: Package of work
- Push: Send commits to a remote database
- Pull: Pull commits from a remote database
- Remote: A git repository on a different computer/server
- Fork: A linked copy of a repository residing under a different account
- Clone: Copy a remote repository onto your computer
- Branch: Do work without affecting others/master
- Merge: Move commits from one branch to another
- Collaborator: Someone with write access to a repo
- Contributor: Someone who has made contributions to a repo via a fork

Get links for advanced learning if people get bored

- <https://guides.github.com/>

[] Check for attribution for git-it & training kit

GitHub

Git in the cloud + more
goodies



Why should I care?

- github.com/agrc/agrc.python
- github.com/arcpy/sample-gp-tools
- github.com/agrc



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Filter by language or keyword:

Python x

gis-tools-for-hadoop

Python

The GIS Tools for Hadoop are a collection of GIS tools for spatial analysis of big data.

↗ 127 ★ 224

arcrest

Python

python package for REST API (AGS, AGOL, webmap JSON, etc.)

↗ 96 ★ 116

ago-admin-wiki

Python

A collection of code samples, scripts, hacks, tools, and information for ArcGIS Online administrators.

↗ 21 ★ 94

solutions-geoprocessing-

raster-functions



Configurable Map Viewer

Documentation Support Examples Contributed Widgets Demo GitHub Team

CMV - The Configurable Map Viewer

Community supported open source mapping framework.
Works with the Esri JavaScript API, ArcGIS Server, ArcGIS Online and more.

[Make it your own!](#)

2nd Annual CMV Dev Meetup

Come join us in Palm Springs at the 2016 Esri International Developers Summit!
Meet the team and discover what awesomeness lies ahead for the CMV project.

Be sure to [add the meetup](#) to your Dev Summit schedule!

Search

arcpy

📖 Repositories	276
🔗 Code	20,538
📢 Issues	453
👤 Users	2

We've found 276 repository results

MAPC/arcpy

Python scripts for ArcGIS 10

Updated on Jun 24, 2011

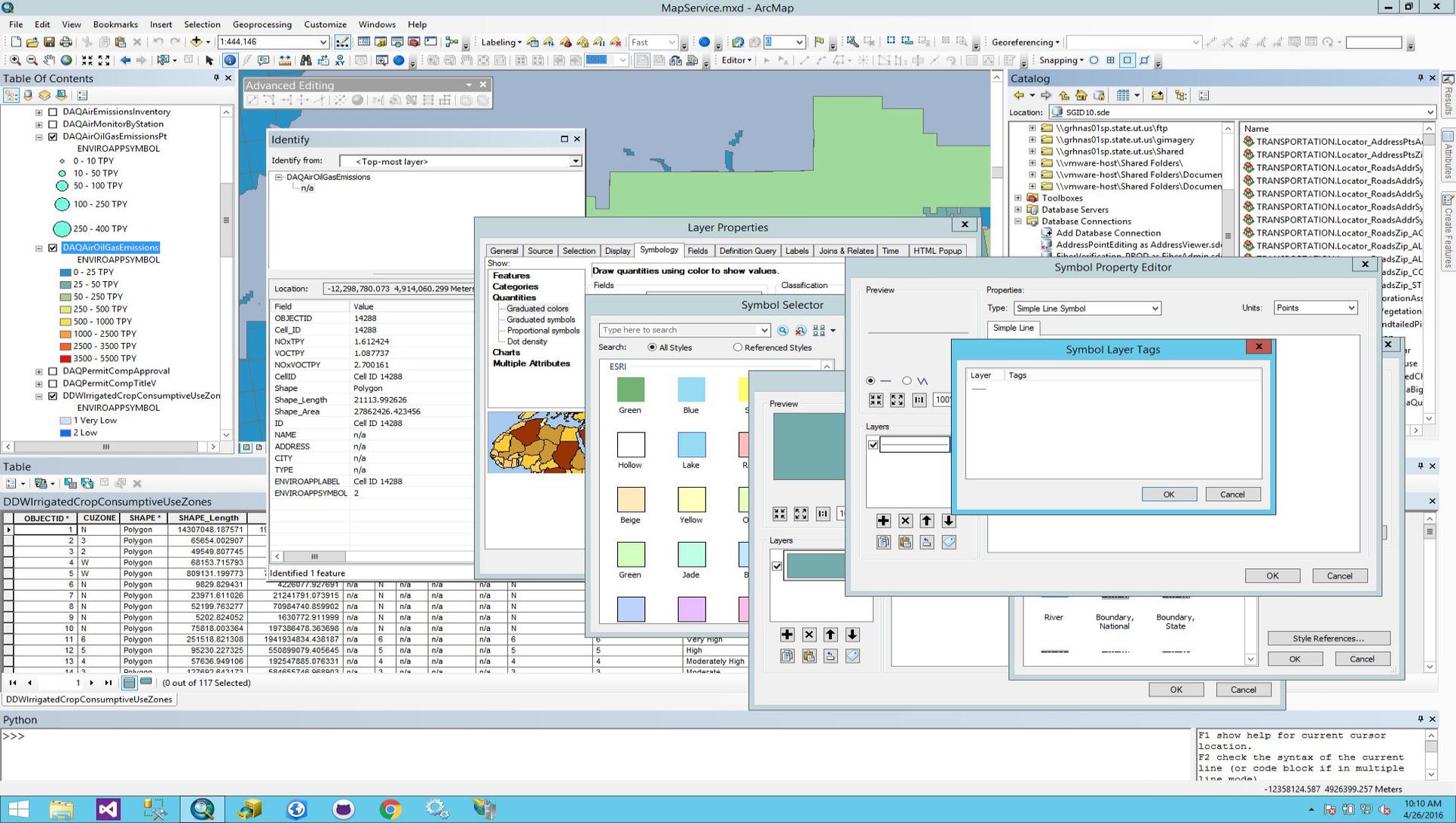
Collaboration



Git-it

An app that teaches you how to use Git and GitHub on the command line.

github.com/jlord/git-it-electron



1. bash

~/Documents/Projects \$

agrc/agrc.github.io

2 Uncommitted Changes History Pull Request

Filter Repositories Compare Sync

GitHub agrc.github.io

2 Changes

- ✓ _config.yml
- ✓ _posts/2016-03-28-c...cts-to-type-script.md

Summary

Description

Commit to master

```
... .. @@ -15,7 +15,7 @@ analytics:
15 15   google:
16 16     tracking_id: 'UA-11849964-41'
17 17   sass:
18 18 -   style: compressed
+   style: nested
19 19   markdown: kramdown
20 20   kramdown:
21 21     input: GFM
```

Get Git

- Install and configure Git

Tip:

Use the terminal that opens when you press “\”
(Windows) or cmd-t (OSX) in GitHub Desktop

Repository

A folder within which changes are tracked

Repository

- Create a new repository on your computer

Tip (Windows Only):

Right-click on terminal and select paste to paste. Ctrl-v doesn't work.

OSX: Cmd-v should work as expected.

Commit

Noun: A collection of changes

Verb: Record changes to a repository

Commit To It

- Add a new file and commit the changes

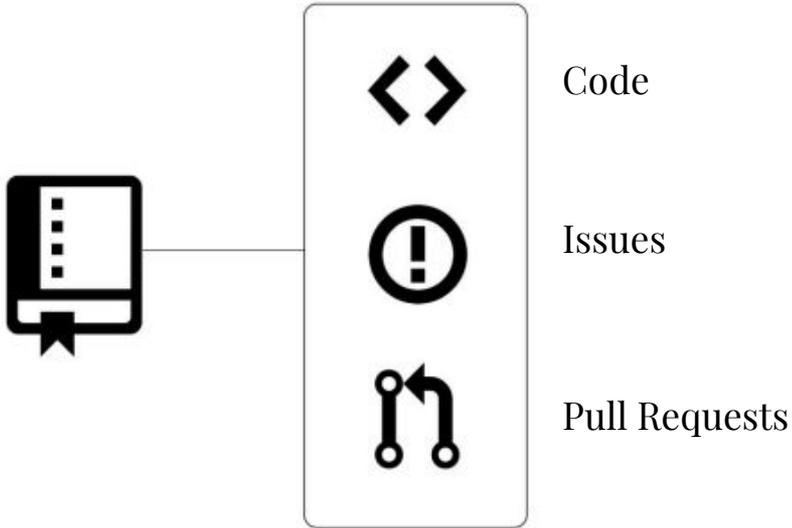
Tip:

Quickly create a new file using the command line this:

```
$ touch NewFile.txt
```



GitHub

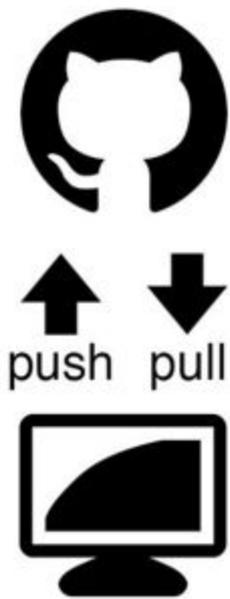


- Wiki
- Graphs/Pulse
- README
- Collaborators & Contributors
- Continuous Integration Systems
- Packages management integrations (e.g. bower/pip/npm)
- Free for open source projects



GitHubbin

- Create a GitHub account
- Add your username to git config



Push

Send commits to a remote repository

Pull

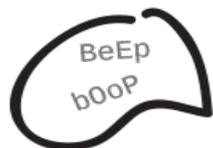
Pull commits from a remote repository

Remote

A git repository on a different computer/server

REMOTE

Repositories live on a GitHub server.

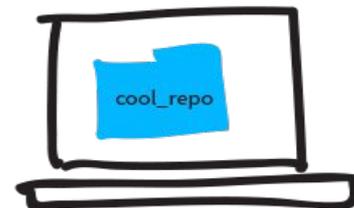
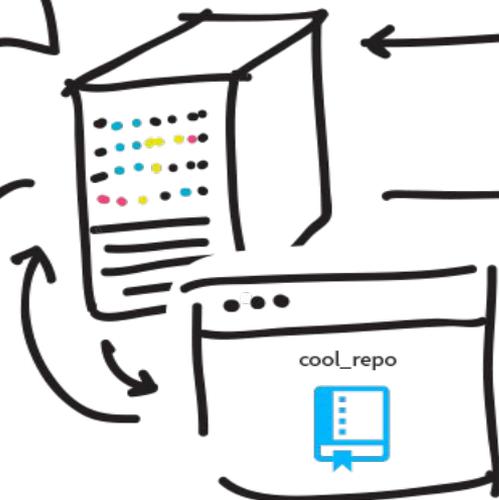


Push

Push

Pull

Pull



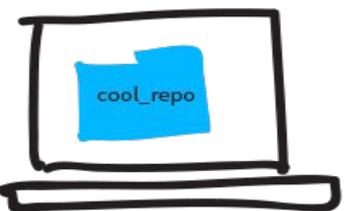
LOCAL

Your computer talks to the GitHub server with **terminal**.

Browser lets you access repository and send changes back to the server.

LOCAL

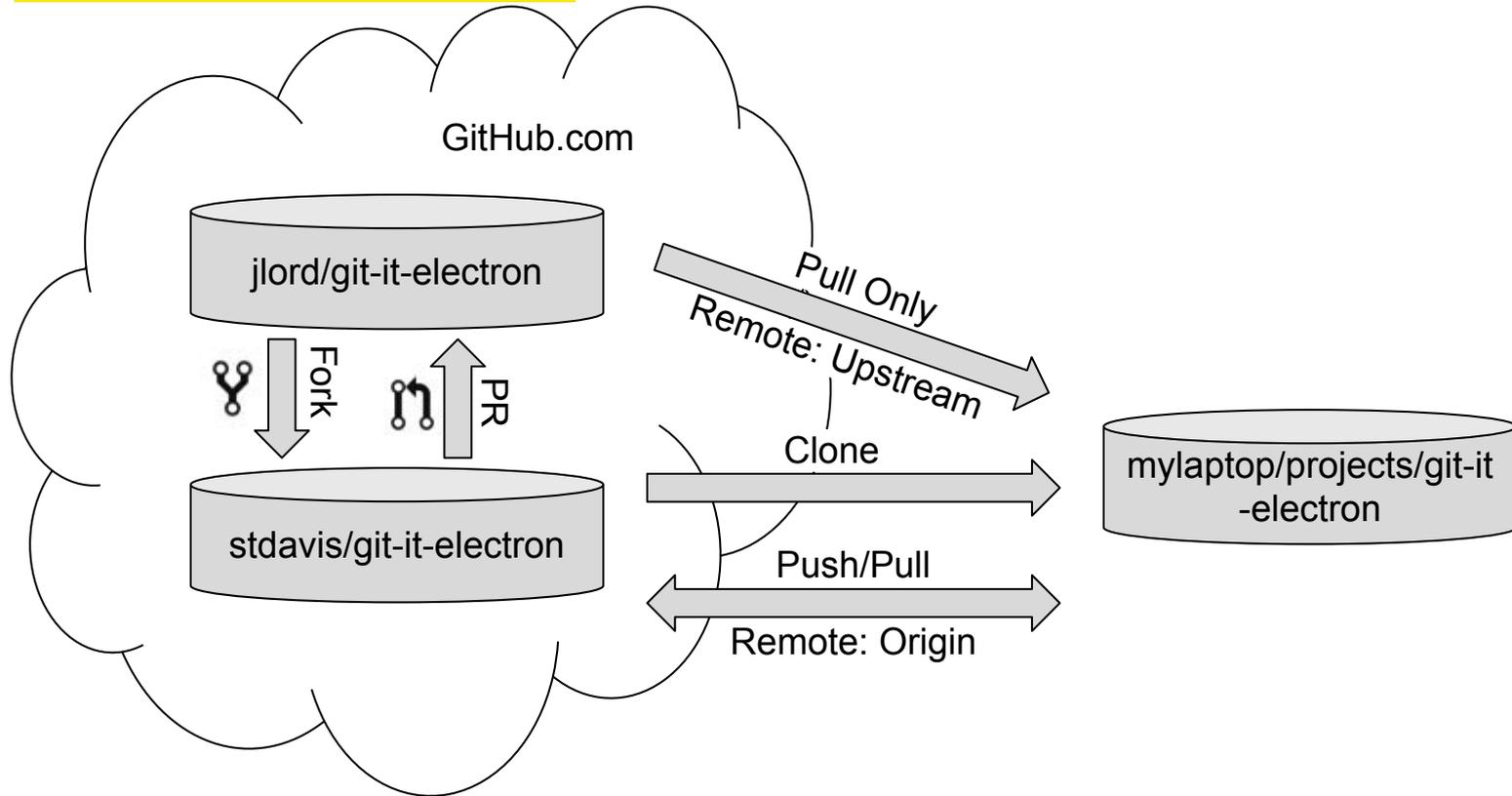
Someone else's computer talks to the GitHub server.



Remote Control

- Create a new repo on [GitHub.com](https://github.com) and connect your local one to it

Forking and Cloning



Fork

A linked copy of a repository residing under a different account on GitHub.com

Clone

Copy a remote repository onto your computer

Forks & Clones

- Fork a project hosted on GitHub.com and clone locally

Tip:

Using a fork is not always appropriate. For example, japanese food tastes better when eaten with chopsticks.

Branch

Do work without affecting others/master

Merge

Move commits from one branch to another

guides.github.com/introduction/flow

master **vs.** gh-pages

Branches Aren't Just for Birds

- Add a branch to your local repo

Tip:

You should give your branch a name that gives others a clue as to what you are working on (e.g. `scrolling-bug`, `remember-folder`).

Collaborator vs. Contributor

Collaborator

Someone with write access to a repo

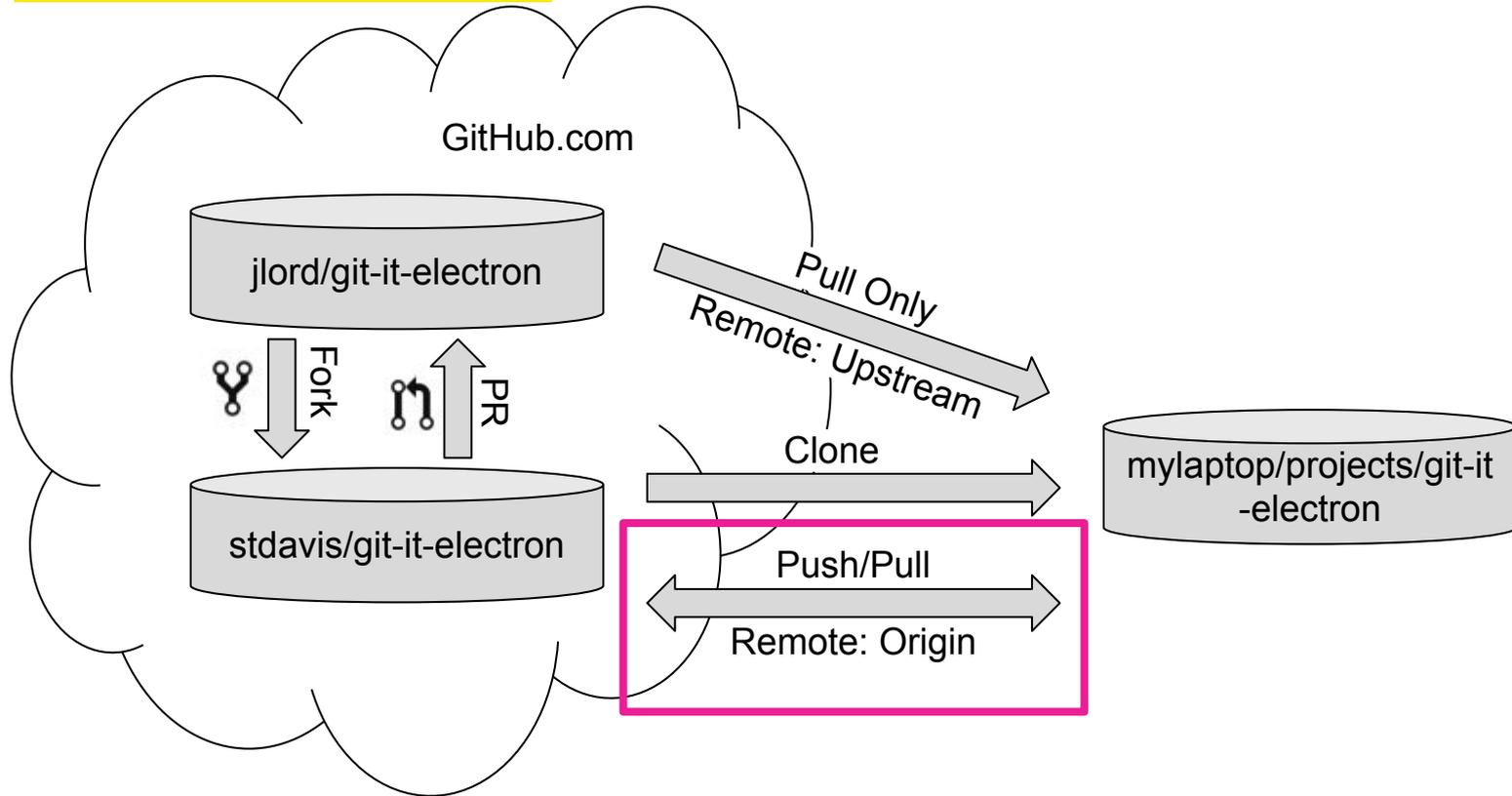
Contributor

Someone who has made contributions to a repo via a fork

It's a Small World

- Add a collaborator to your forked repo

Pulling from Origin



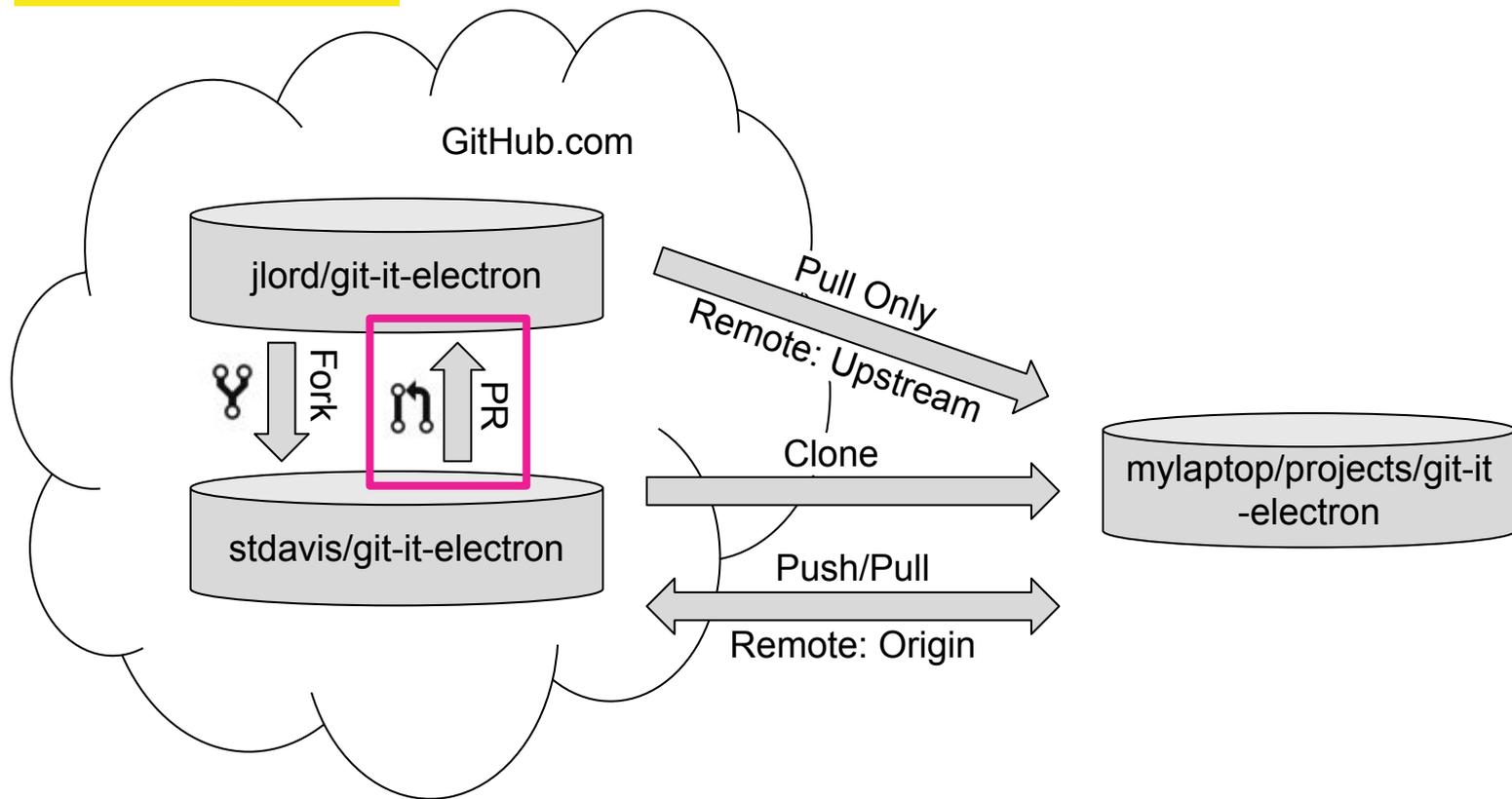
Pull Never Out of Date

- Pull any changes to your fork down to your local repo

Tip:

If @reporobot didn't make any changes to your fork, don't worry about it. It shouldn't affect your ability to complete the rest of the exercises.

Pull Requests



Requesting You Pull Please

- Submit a Pull Request to the upstream repo

Merge

Move commits from one branch to another

Merge Tada

- Merge your branch into master and clean up

Thanks!

stdavis@utah.gov
@stthomasdavis

Other Resources

- guides.github.com
- [The Official GitHub Training Manual](https://training.github.com)
- training.github.com/kit

Credits

- github.com/jlord/git-it-electron (Exercises & Images)
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