

Contributing to a Github Project



CC BY-SA Nate Levesque



(We'll get back to that)

So let's talk about open source

Open Source

- If you're here, you're probably already familiar with the idea
 - Linux and most things you run on it are open source
- Generally refers to software whose source code is freely available
- The community at large is driven by contributions
 - These can be bugfixes, suggestions, application support..
- Not just software!

Who Builds It?

- Anyone!

Even Apple and Microsoft Contribute

- Apple maintains CUPS (the Common Unix Printing System)
- Microsoft contributes drivers and patches to the Kernel
- Microsoft open sourced most of the .NET framework

One Project (The Linux Kernel)

- 50% of commits are made on weekdays between 9 and 5
- In 2014, 1,196,610 lines of code were added
- 523-1070 individuals contributing per month
- Kernel contributions increase steadily every year

Where can I find projects?



Bitbucket



We'll take a look at Github

Some quick Github facts

- A standard place for open source (and a lot of closed source) projects
- At the end of 2013, Github had over 10 million repositories
- Support for Git and SVN
- Workflow is based on forking and pull requests

Typical Github Workflow in a Nutshell

1. Find a project you want to contribute to
2. Fork the repository to your own account
3. Clone the repository to your local machine
4. Make your changes
5. Commit and push
6. Open a pull request against the original repository describing your changes
7. The project maintainer and other contributors will review and hopefully merge your code

Finding a Project

- What interests you?
 - Are you a member of an organization?

- Do you want to make something you use better?

Turns out RITlug has a Github! Let's look at what's available.



RIT Linux Users Group

📍 Rochester Institute of Technology ✉️ ritlug@rit.edu

 **Repositories**

 **People** 6

Filters ▾

runbook

★ 1 📄 1

Detailed information on how RITLUG runs and how to run RITLUG

Updated 2 days ago

ritlug.github.io

CSS ★ 4 📄 2

RITLUG website

Updated 2 days ago

governance

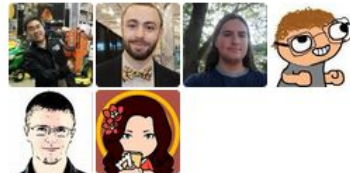
TeX ★ 2 📄 0

RITLUG's open-source governance documents.

Updated on May 8

People

6 >



Let's upload this talk to RITlug's website


Fork the Project



 RITlug / ritlug.github.io

 Unwatch ▾ 7  Star 4  Fork 1

RITlug website <https://ritlug.github.io> — Edit

 32 commits

 3 branches

 0 releases

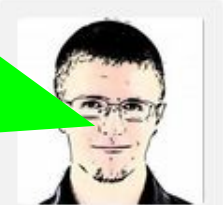





 3 contributors

 Code

Choose where to fork it to (if you're a member of orgs)

The image shows a GitHub repository page for 'RITlug / ritlug.github.io'. A modal dialog titled 'Where should we fork this repository?' is open in the center, displaying six options for where to fork the repository. A green arrow points to the first option, '@thenaterh...'. The background shows the repository's commit history, a pull request, and navigation links like 'Code', 'Issues', and 'Pull requests'.

Where should we fork this repository?

-  @thenaterh...
-  @box
-  @RITlug
-  @codeRIT
-  @Hackatho...
-  @ritmap

Clone your repository

```
git clone git@github.com:<you>/ritlug.github.io
```

Make your changes

- We'll copy the PDF of this powerpoint into the talks directory
- We'll add a file in talks/_posts with these contents:

```
title: Contributing to a Github Project
author: Nate Levesque
slides: /talks/2015-fall-contributing-to-github.pdf
layout: post
date: 2015-10-09
```

Happy Hacktoberfest!

Runthrough of how to contribute to a Github project, so you can get your Hacktoberfest game on.

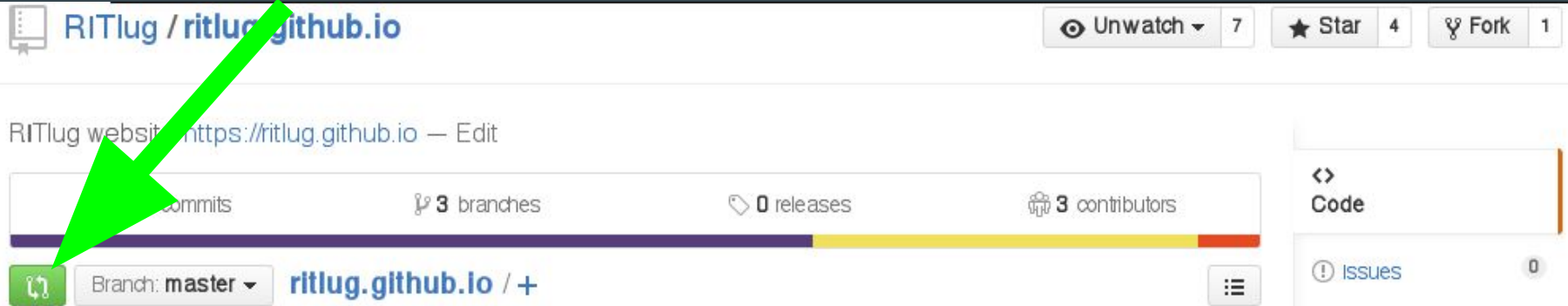
Commit and Push

```
git add talks
```

```
git commit -am "Add github presentation"
```

```
git push
```



Open a Pull Request on the Original Repository



RITlug / [ritlug.github.io](https://github.com/ritlug/ritlug.github.io) Unwatch 7 Star 4 Fork 1

RITlug website <https://ritlug.github.io> — Edit

commits 3 branches 0 releases 3 contributors

 Branch: **master** [ritlug.github.io](https://github.com/ritlug/ritlug.github.io) / + 

[Code](#)

[Issues](#) 0



 **Create pull request**

Discuss and review the changes in this comparison with others.



We made our pull!

- Next, the maintainers and other contributors will review and comment on our change
- If we get comments, we can add more commits to our pull by pushing to the same branch on our copy of the repository
- Eventually, our pull may get merged in to the project

Pull Request Pointers

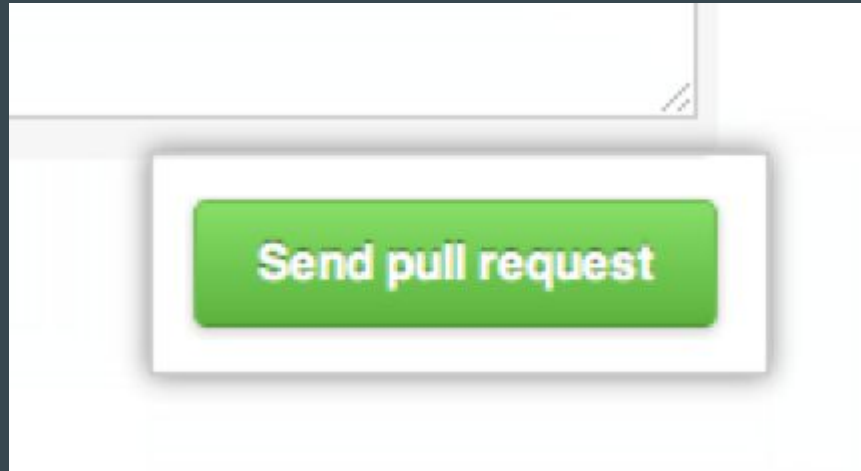
- Projects often have standards. Read up on them and try to follow them before making pull requests
- Sometimes, pull requests don't get merged. It's not personal.
- Break your changes into small commits so it's easier to review them
- You can reference issues on the project in your pull request and even other pull requests

What was this Hacktoberfest thing?

What is Hacktoberfest?

- A month long event intended to encourage people to contribute to open source projects on Github
- If you open four pull requests to any public Github repositories during Hacktoberfest (October) you can earn a T-shirt if you've joined
- Join at hacktoberfest.digitalocean.com and get contributing!

Add a title and description then...



Questions and thoughts