# Connecting to GitHub

#### Andrew Ba Tran

## Contents

This is from the seventh chapter of learn.r-journalism.com.

Github is one of web-based hosting services for sharing and collaborating with code and data.

It all depends on your needs and preferences. Each are pretty similar.

#### Options

- Github
- BitBucket
- GitLab

We're going to publish a folder to Github because it offers free hosting to open-source software projects.

It's already where most R packages are hosted when they're being developed.

**Warning:** If you're using two-factor authentication in Github, you'll need to go through some more steps for generating an SSH key to connect. This shouldn't concern you if you're using Github after just creating a new account.

#### Creating a Github respository

Go to Github.com and create a new account if you haven't yet. Use the same username and email address that you set up with your git global option.

For this example, we're going to upload our folder of chunks that we created in the Publishing chapter.

In Github, create a new public repository called "chunks".

Do NOT check "Initialize with README". You want a blank repository.

## Create a new repository

A repository contains all the files for your project, including the revision history.

Owner	Repository name							
🔊 andrewbtran 🗸 /	chunks	~						
Great repository names are short and memorable. Need inspiration? How about laughing-sniffle.								
Description (optional)								
O 🗛 Private	repository. You choose who ca see and commit to this reposit							
<ul> <li>Initialize this repositon</li> <li>This will let you immediate repository.</li> </ul>	•	computer. Skip	this step if you're importing an existing					
Add .gitignore: None -	Add a license: None ▼	<b>(i)</b>						
Create repository								

This will create a new repository page, which needs to be synchronized with the local repository we're about to create.

Create a folder somewhere (Remember good workflow. Maybe move it to your Documents folder or a new folder for Projects?) and also call it "chunks".

Copy and paste the files, including 01\_chunk.html and 01\_chunk.rmd files into that "chunks" folder.

chunks		
		earch
Name	<ul> <li>Date Modified</li> </ul>	Size
01_chunk.html	Today at 10:08 AM	1.9
01_chunk.Rmd	Today at 10:02 AM	408 k
02_chunk.html	Today at 10:12 AM	1.8
02_chunk.Rmd	Today at 10:12 AM	445 k
03_chunk.html	Today at 10:16 AM	1.4
03_chunk.Rmd	Today at 10:16 AM	466 k
04_chunk.html	Today at 10:21 AM	1.
04_chunk.Rmd	Today at 10:21 AM	
05_chunk.html	Today at 10:26 AM	73
05_chunk.Rmd	Today at 10:26 AM	
06_chunk.html	Today at 10:38 AM	77
06_chunk.Rmd	Today at 10:37 AM	
o 07_chunk.html	Today at 10:41 AM	1.
07_chunk.Rmd	Today at 10:41 AM	

Open up your CMD/terminal and navigate to the folder.

For me, that would look like:

```
    chunks — -bash — 80×24
    Last login: Sat Jul 14 11:38:29 on ttys000
    [Andrews-MacBook:images andrewtran$ cd /Users/andrewtran/Projects/chunks
    Andrews-MacBook:chunks andrewtran$
```

Type in the git commands we learned before to initialize, add, and commit.

git init git add . git commit -m "first commit"

```
🚞 chunks — -bash — 80×24
• • •
Last login: Sat Jul 14 11:38:29 on ttys000
[Andrews-MacBook:images andrewtran$ cd /Users/andrewtran/Projects/chunks
[Andrews-MacBook:chunks andrewtran$ git init
Initialized empty Git repository in /Users/andrewtran/Projects/chunks/.git/
[Andrews-MacBook:chunks andrewtran$ git add .
[Andrews-MacBook:chunks andrewtran$ git commit -m "first commit"
[master (root-commit) 47c7fe4] first commit
 14 files changed, 1745 insertions(+)
 create mode 100644 01_chunk.Rmd
 create mode 100644 01_chunk.html
 create mode 100644 02_chunk.Rmd
 create mode 100644 02_chunk.html
 create mode 100644 03_chunk.Rmd
 create mode 100644 03_chunk.html
 create mode 100644 04_chunk.Rmd
 create mode 100644 04_chunk.html
 create mode 100644 05_chunk.Rmd
 create mode 100644 05_chunk.html
 create mode 100644 06_chunk.Rmd
 create mode 100644 06_chunk.html
 create mode 100644 07_chunk.Rmd
 create mode 100644 07_chunk.html
Andrews-MacBook:chunks andrewtran$
```

1

Now we need to connect this repository on the local computer to the repository on Github.

The lines were provided when you created the repository on Github:

Quick setup —			_			-					
Set up in Desktop			SSH				ran/chunks	.git			Ê
le recommend ever	y repos	sitory in	ciude a	READM	E, LICENS	se, and .gi	tignore.				
.or create a ne	w rep	osito	ry on	the co	omman	d line					
echo "# chunks"	>> R	EADME.	md								Ê
git init git add README.	md										
git commit -m "		commi	it"								
git remote add				ib.com:	andrewb	tran/chu	nks.git				
git push —u ori	.gin m	aster									
			•-								
or push an exi	isting	l repo	sitory	/ from	the cor	nmand	line				
git remote add			githu	b.com:	andrewb	tran/chu	nks.git				Ê
	.gin m	laster									
git push –u ori											

Type the equivalent of that into your terminal/cmd:

git remote add origin git@github.com:YOURUSERNAME/chunks.git git push -u origin master

```
• • •
                             🔁 chunks — -bash — 80×24
                                                                                  \equiv
 create mode 100644 03_chunk.Rmd
 create mode 100644 03_chunk.html
 create mode 100644 04_chunk.Rmd
 create mode 100644 04_chunk.html
 create mode 100644 05_chunk.Rmd
 create mode 100644 05_chunk.html
 create mode 100644 06_chunk.Rmd
 create mode 100644 06_chunk.html
 create mode 100644 07_chunk.Rmd
 create mode 100644 07_chunk.html
[Andrews-MacBook:chunks andrewtran$ git remote add origin git@github.com:andrewbt]
ran/chunks.git
Andrews-MacBook:chunks andrewtran$ git push -u origin master
Enumerating objects: 16, done.
Counting objects: 100% (16/16), done.
Delta compression using up to 4 threads.
Compressing objects: 100% (16/16), done.
Writing objects: 100% (16/16), 723.58 KiB | 2.28 MiB/s, done.
Total 16 (delta 10), reused 0 (delta 0)
remote: Resolving deltas: 100% (10/10), done.
To github.com:andrewbtran/chunks.git
 * [new branch]
                     master -> master
Branch 'master' set up to track remote branch 'master' from 'origin'.
Andrews-MacBook:chunks andrewtran$
```

Refresh your Github repo and all your files should be there:

📮 andrewbtran / chunks					⊙ Unwatch <del>-</del>	1	Star 0	Fork 0		
<> Code (!) Issues ()	ິ່ງ Pull requests 0	Projects 0	💷 Wiki	Insights	Settings					
No description, website, or Add topics	topics provided.							Edit		
🕝 1 commit	ទ្រ។	Ibranch		♡ <b>0</b> releases		ц	<b>1</b> contribu	tor		
Branch: master - New pull re	quest			Create new file	Upload files	Find file	Clone o	or download <del>-</del>		
andrewbtran first commit					Lat	est commit	47c7fe4 4	minutes ago		
01_chunk.Rmd			first commit				4	minutes ago		
<b>5</b> 01_chunk.html			first commit				4	minutes ago		
02_chunk.Rmd	02_chunk.Rmd         first commit						4 minutes ago			
02_chunk.html			first commit				4	minutes ago		
03_chunk.Rmd			first commit				4	minutes ago		
3 03_chunk.html			first commit				4	minutes ago		
04_chunk.Rmd			first commit				4	minutes ago		
04_chunk.html			first commit				4	minutes ago		
05_chunk.Rmd			first commit				4	minutes ago		
05_chunk.html			first commit				4	minutes ago		
06_chunk.Rmd			first commit				4	minutes ago		
06_chunk.html			first commit				4	minutes ago		
07_chunk.Rmd			first commit				4	minutes ago		
07_chunk.html			first commit				4	minutes ago		

Now you can get those HTML files hosted.

#### Hosting with Github Pages

Turn http://github.com/username/reponame/index.html -> Into http://username.github.io/reponame/index.html github.io is the address for hosted files. Can you spot what to swap? First we need to set up Github to host the files.

#### Setting up GH Pages

After uploading your repo, click on **Settings** on the top right.

📮 andrewbtran / chunks		O Unwatch → 1 ★ Star 0 Fork 0
<>Code (!) Issues 0 (Å	Pull requests 0 🔲 Projects 0 💷 Wiki 🔟 Insig	ghts 🗘 Settings
Options	Settings	
Collaborators		
Branches	Repository name	
Webhooks	chunks	
Integrations & services		
Deploy keys	Features	

Scroll down to the **GitHub Pages** section of Settings.

Change the Source from None to master branch and click save.

### **GitHub Pages**

GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repository.

	Source GitHub Pages is currently disabled. Select a so more.	ource below to enable GitHub Pages for this repository. Learn
	master branch - Save	
	Select source X	
	<ul> <li>master branch</li> <li>Use the master branch for GitHub Pages.</li> </ul>	ll theme using the master branch. Learn more.
	master branch /docs folder Use only the /docs folder for GitHub Pages.	
D	None Disable GitHub Pages.	
$\square$		

For future projects, you can organize your files so that all output HTML are stored in a docs folder. Then the option master branch\docs will host those files and ignore everything in the root folder.

Now go to https://YOURUSERNAME.github.io/chunks/06\_chunk.html and you should have your hosted file!

Ontio	Secure	https://andrewbtran.github.io/chunks/06_chunk.html
Optio	115	

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# Chunk 6

Andrew 7/23/2018

## Departments with the highest average pay

<pre>top5 &lt;- payroll %&gt;% group_by(DEPARTMENT) %&gt;% summarize(<u>Average.Earnings=mean(TOTAL.EARNINGS, na.rm=</u>T)) %&gt;% arrange(desc(Average.Earnings)) %&gt;% head(5)</pre>	
DEPARTMENT	Average. Earnings
Boston Police Department	136454.9
Mayor's Office-Public Info	133708.0
Law Department	133662.2
Environment Department	131208.0
Mayor's Office	127376.4

#### That's it!

What if you get some new data and wanted to update this?

- 1. Change the data imported in the local project
- 2. Generate a new HTML from the .Rmd file
- 3. git add the files in the terminal/cmd
- 4. git commit -m with the message "new data" or whatever
- 5. git push -u origin master to move the new file changes to Github
- 6. Refresh the URL address and the changes should be reflected!

#### And that is that!

With this published repo, you're now part of the reproducible journalism community.

Last thing we'll go over are some tips and best practices.