

Using Github for research and life

Matthew Malishev^{1*}

¹ *Department of Biology, Emory University, 1510 Clifton Road NE, Atlanta, GA, USA, 30322*

Contents

Install git	3
Create a Github account	3
Using git and Github	6
References	6
Maintainer	6

Date: 2018-11-14

R version: 3.5.0

*Corresponding author: matthew.malishev@gmail.com

This document can be found at <https://github.com/darwinanddavis>

Install git

Install git on your computer following the instructions [here](#).

Once git is on your computer, you can now access its features using either just your local computer for version control or your Github account.

Create a Github account

Create your new Github account [here](#). Some tips on creating an account:

- Choose a username that you plan to keep. Something that represents your professional acumen, e.g. not “matt_loves_hiphop86”
- Github is universal and really useful. You can connect to programming, troubleshooting, userX sites, and coding libraries, e.g. CodePen, using your Github account, so plan for longevity.

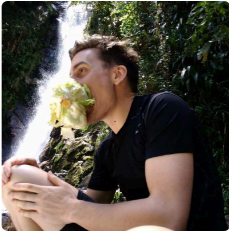
Feel free to navigate my personal Github page. Everything is publicly available.

www.github.com/darwinanddavis

Some essential elements of your Github page:

- Your repositories. This is where you store your online information.
- Your gits. These are the digital footprints of your changes. We use this for [version control](#).
- Your README.md file. This tells users what your repo contains, instructions for running code, troubleshooting, version control, links to external web sources, and other git specific elements, such as program/package versions.

Here are some screenshots of what you'll see on your own github page.



Matt Malishev

darwinanddavis

Animal movement & host-parasite energetics modeller • Squanders at [@EmoryUniversity](#), raised at [@CEBRA_UoM](#) and [@CamelUnimelb](#).
<https://tinyurl.com/y7lu5ege>

Edit bio

Emory University
Atlanta, Georgia, USA
matthew.malishev@gmail.com
<https://www.researchgate.net/>

Overview Repositories 33 Stars 2 Followers 3 Following 4

Pinned repositories Customize your pinned repositories

SchistoIBM

Individual-based simulation model for Schistosoma population with dynamic energy budget model, starvation, and infection model (R, Netlogo)

HTML ★ 1

Android

XML and Android development files

Java

SchistoMesocosm

Schistosome mesocosm data for cercariae shedding rates in size structured host population

HTML

plot_it

Plotting function for switching between manuscript-ready and presentation style plots in R

R

eli

Eli behaviour data for year 1

HTML

UsefulCode

Useful R code for functions, plotting, cool things (R)

HTML

452 contributions in the last year

Contribution settings

Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov

Figure 1: Github loading page

darwinanddavis / Android

Unwatch 1
Star 0
Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Insights Settings

XML and Android development files

xml java android app Manage topics

32 commits 1 branch 0 releases 1 contributor

Branch: master New pull request

Create new file Upload files Find file Clone or download

darwinanddavis

readme

Latest commit 87b6d2b a day ago

AndroidBasics/UI	Jan updates	10 months ago
Projects	Files uploaded from /app/src/main/	4 months ago
README.md	readme	a day ago

README.md

XML and Android development

Matthew Malishev*

Figure 2: Repository loading page

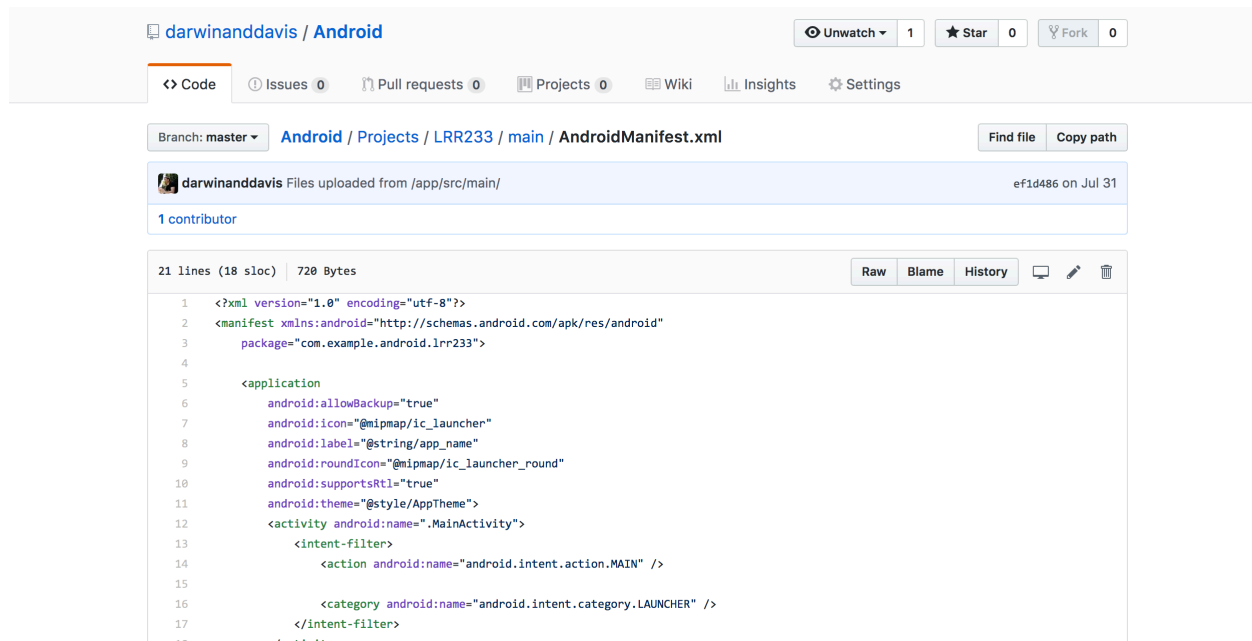


Figure 3: Inside of a file in a repository

Running the simulation model

Download the instructions for your operating system

[Windows](#)
[Mac OSX](#)

Parameters and variables

Individual

Notation follows the standard DEB notation, except in the following aspects:

- Rates are indicated with '_rate' rather than a dot
- 'ee' is scaled reserve density of hosts in `NetLogo`

Table 1. Definitions of model parameters for individual hosts and **parasites**. Dimensions and units: -, dimensionless; cm, centimetres; J, Joules; L, length.

Parameter	Definition	Dimension (unit)	Environment
<i>L</i>	structural length	cm	NetLogo
<i>ee</i>	scaled reserve density	J (cm ³)	NetLogo
<i>D</i>	host development	??	NetLogo

Figure 4: Example of a README file

Using git and Github

We'll be using the command line to talk with git.

- In Mac, this is found in *Applications > Terminal*.
- In Windows, it's under *Start*, then in the Search line type "cmd".

See these references for a brief intro to using the command line in [Mac](#) and [Windows](#).

Here is a brief intro. At least familiarise yourself with these before the workshop.

Useful command line syntax

```
cd # set working dir
pwd # print current working dir
ls # list files in working dir
mkdir newfolder # make new working dir
touch text.txt # create new file
```

More useful syntax

```
#copy files from _source_ to _destination_. e.g. cp /Users/mydir/README.txt ~/Documents
cp source destination
```

```
# copy all folders, subfolders, and files from _source_ to _destination_
cp -R source destination
```

```
# move files or folders from _source_ to _destination_ (no need for -R)
mv source destination
```

```
#move multiple files with the * wildcard, which copies all .rtf files. The tilde (~) symbol is a shortcut
cp ~/Desktop/*.rtf ~/Documents
```

```
# rename files
mv ~/Desktop/MyFile.rtf ~/Desktop/MyFile-old.rtf
cp ~/Desktop/MyFile.rtf ~/Documents/MyFile-old.rtf
```

References

[Installing git](#)

[Sign up to Github](#)

[Version control with git](#)

[Terminal in Mac](#)

[Command line in Windows](#)

Maintainer

Matt Malishev
[Github](#) | [Website](#)

matthew.malishev [at] emory.edu