

# Building websites in RStudio

Maria Tackett  
Duke University

RLadies  
Spring 2021

 [bit.ly/rladies-build-websites](https://bit.ly/rladies-build-websites)

**Motivation**

**Distill +  
Blogdown**

**Making a  
website**

**Tips**

Motivation

Distill +  
Blogdown

Tips

Making a  
website

# Background



- Made simple websites in high school and college using HTML
- Took one web programming class in college (HTML, CSS, PHP, Perl)

# Background



- Regularly use R and R Markdown
- Enjoy playing around with websites and trying new things in R
- Really good at Google searches

# Wanted a website for my class...

STA 210 Home Schedule Course Policies R Studio Help

## STA 210: Regression Analysis

In this course, you will learn approaches to analyzing multivariate data sets, emphasizing the analysis of variance, linear regression, and logistic regression. You will learn techniques for checking the appropriateness of proposed models, such as residual analyses and case influence diagnostics, and techniques for selecting models. The class emphasizes data analysis over mathematical theory.

By the end of the semester, you will...

- Know methods for analyzing multivariate datasets and understand how these methods are applied in research
- Know how to check whether proposed statistical models are appropriate for given data
- Develop a proficiency in addressing complex research questions using statistical evidence
- Understand the process of data-based research by working on an independent research project

### Course Information

STA 210 Home Schedule Course Policies R Studio Help

#### Course Schedule

*Note: This schedule may be updated as the semester progresses.*

Week	Date	CH	Slides	Labs	HW	Recommended	Project
1	Tu: Aug 28		Course Introduction				
	Th: Aug 30	1-3	Review: Confidence Intervals				
2	M: Sep 3		Intro to R	Lab 1			
	Tu: Sep 4	1-3	Review: Hypothesis Tests				
	Th: Sep 6	5.1 - 5.5	ANOVA		HW 1 open	5.5, 6.1, 6.2	
3	M: Sep 10		Comparing Means with R	Lab 2 (due 9/19)			
	Tu: Sep 11	5.1 - 5.5	ANOVA: Part 2			5.5, 6.1, 6.2	
	Th: Sep 13		Class Canceled		HW 2 open		
4	M: Sep 17		Linear Regression	Lab 3	HW 1 due		
	Tu: Sep 18	7	Simple Linear Regression				
	Th: Sep 20	8.1-8.4, 8.6	Simple Linear Regression		HW 2 due HW 3 open		
	M: Sep 24		Displaying Output	Lab 4			

```
<tr>
  <td>Th: Sep 6</td>
  <td>5.1 - 5.5</td>
  <td><a href="./slides/lectures/04_anova.html" target="_blank">ANOVA</a></td>
  <td>&nbsp;</td>
  <td><a href="./assignments/hw/hw1.html" target="_blank">HW 1 open</a></td>
  <td>5.5, 6.1, 6.2</td>
  <td>&nbsp;</td>
</tr>
```

- Code is difficult to read
- Easy to make mistake
- Takes a while to update
- Limited by HTML knowledge and time

# The following semester...

The screenshot shows the STA 210 course website. The top navigation bar includes links for HOME, SCHEDULE, POLICIES, RSTUDIO, GITHUB, and HELP. Below the navigation bar is a banner image with statistical plots. The main content area is divided into sections for Course info, Lectures, and Labs. The Lectures section lists 'Old Chem 116' on 'Mon and Wed 10:05a - 11:20a'. The Labs section is currently empty. Below this, a second screenshot shows the course schedule table.

**Note:** This schedule may be updated as the semester progresses. Due dates for the exams and project will not be changed.

Date	Lesson	Slides	Reading	Lab	AE	HW	Project
	Week 00						
Wed, Jan 9	Welcome to Regression Analysis						
Fri, Jan 11	Lab 00: Logistics						
	UNIT 1 CONTINUOUS RESPONSE VARIABLES						
	Week 01						
Mon, Jan 14	Motivating regression analysis						
Wed, Jan 16	Simple Linear Regression (SLR)						
Fri, Jan 18	Lab 01: Intro to R						
	Week 02						
Mon, Jan 21	NO CLASS - Martin Luther King, Jr. Day						
Wed, Jan 23	SLR: Inference						
Fri, Jan 25	Lab 02: Simple Linear Regression (SLR)						
	Week 03						
Mon, Jan 28	SLR: Inference & Prediction						

[stat.duke.edu/courses/Spring19/sta210.001](http://stat.duke.edu/courses/Spring19/sta210.001)

lessons:

- title: "Week 00"
- date: "Wed, Jan 9"  
title: "Welcome to Regression Analysis"  
slides: "lec-slides/00-intro.html"  
appex: "00-movies.html"
- date: "Fri, Jan 11"  
title: "Lab 00: Logistics"  
slides: "lab-slides/00-lab-slides.html"

- Code is intuitive & easy to read
- Quick to update
- Not limited by my HTML knowledge

STA 210

HOME SCHEDULE POLICIES RSTUDIO GITHUB HELP

**Course info**

**Lectures**

Old Chem 116 Mon and Wed 10:05a - 11:20a

**Labs**

Lab 01 Soc Sci 311 Fri 11:45a - 1p  
 Lab 02 Soc Sci 311 Fri 1:25p - 2:40p

**Teaching team and office hours**

Instructor	Prof. Maria Tackett	Tues 10:30a - 12p	Old Chem 118B
TAs	Anna Darwish	Mon 3p - 5p	Old Chem 203B
	Matty Pahren	Wed 12:30p - 2:30p	Old Chem 203B

[Link to site](#)

Design based on

STA 199

HOME SYLLABUS POLICIES RSTUDIO GITHUB HELP

wrangling and munging, exploratory data analysis, predictive modeling, and data visualization, and effective communication of results. Work on problems and case studies inspired by and based on real-world questions and data. The course will focus on the R statistical computing language.

**Course info**

**Lectures**

French 2231  
 Mon and Wed 3:05 - 4:20

**Labs**

Soc Sci 311  
 Thu 1:25 - 2:40 or Thu 2:05 - 4:20 or Thu 4:40 - 5:55

[Link to site](#)

Design based on

ESPM 157

HOME MODULES TUTORIALS SYLLABUS POLICIES

Instructor **Carl Boettiger**

GSIs Millie Chapman

Location **ONLINE ONLY**

Times **Mon, Weds 10:00A - 12:00P** (West Coast Time)

CCN

Office Hours TBD

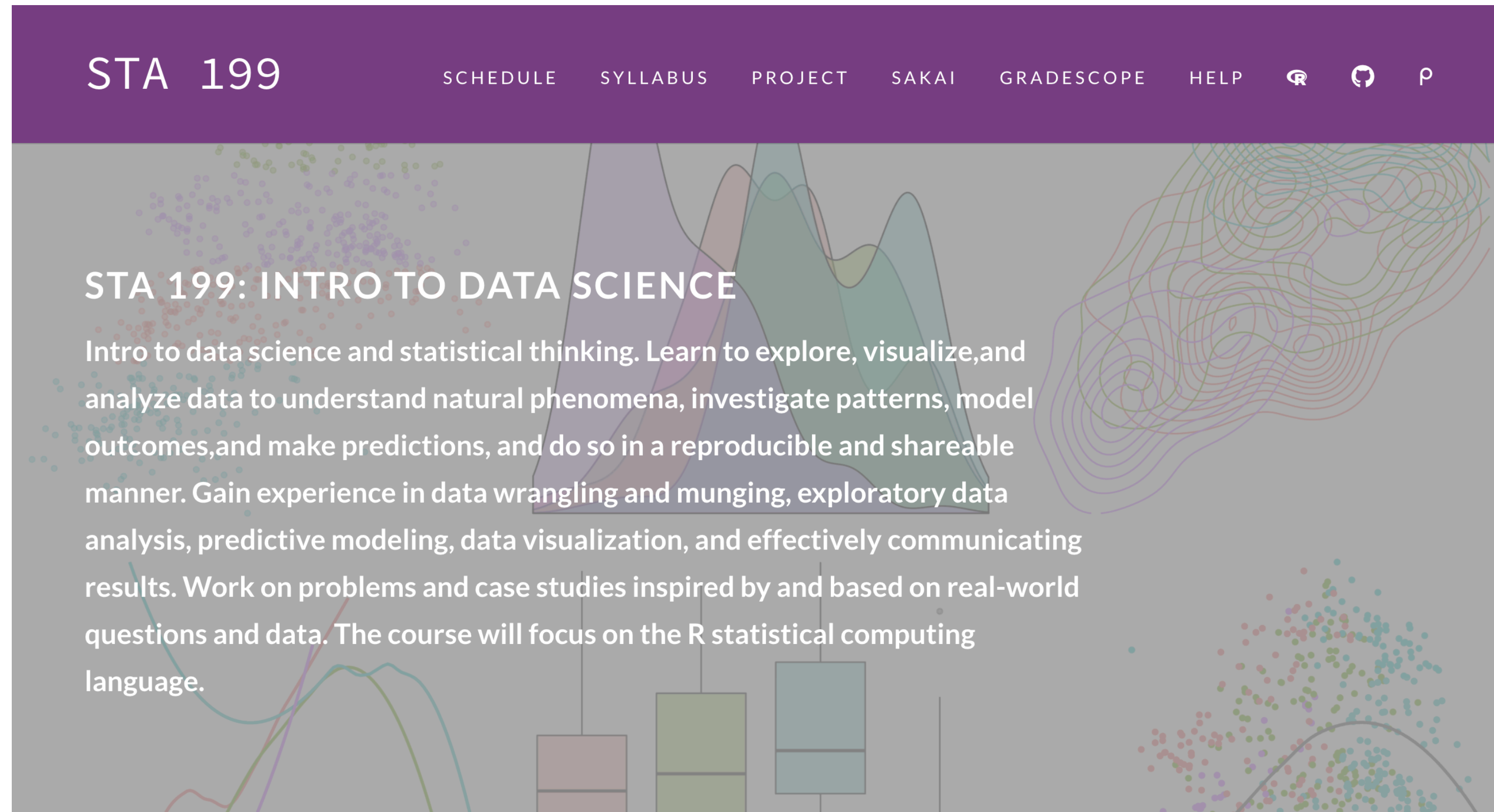
**Overview**

This course is designed for upper division undergraduate students regardless of prior experience. We aim to be accessible to those new to programming, but those who have been using R for years will find new material in this opinionated and fast moving area. The course is project focused and centered around five modules reproducing important results in global change ecology. A series of short tutorials will introduce relevant technology, but most concepts will be first introduced in reading outside of class, leaving class time to focus on the more complex examples encountered in the modules.

[Link to site](#)



# Combine elements from multiple sites



[sta199-fa20-002.netlify.app](http://sta199-fa20-002.netlify.app)

[tidymodels.org](http://tidymodels.org)

+

[introducs.org](http://introducs.org)

+

[datavizm20](http://datavizm20)

# Combine elements from multiple sites

The screenshot shows the 'tidymodels.org' website. The main content area features a large heading '1 Build a model' and a list of sub-topics: INTRODUCTION, THE SEA URCHINS DATA, BUILD AND FIT A MODEL, USE A MODEL TO PREDICT, MODEL WITH A DIFFERENT ENGINE, WHY DOES IT WORK THAT WAY?, and SESSION INFORMATION. Below this is an 'INTRODUCTION' section with a small icon and text explaining how to create a statistical model using tidymodels. A sidebar on the left lists 'GET STARTED' steps from 1 to 5. A small box at the bottom left asks 'Stuck? Confused? Ask for help.' with a speech bubble icon.

[tidymodels.org](https://tidymodels.org)

The screenshot shows the 'introts.org' website. The 'Videos' section provides options for watching course videos on YouTube or MediaHopper. Below this is a table with columns for 'No.', 'Title', 'YouTube', 'MediaHopper', 'Slides', and 'Length'. The table lists six videos. Below the table is an 'Assignments' section with a table listing assignments, their titles, and due dates.

No.	Title	YouTube	MediaHopper	Slides	Length
01	Keeping up with IDS: Week 2				10:25
02	Data and visualisation				23:52
03	Visualising data with ggplot2				21:40
04	Visualising numerical data				23:57
05	Visualising categorical data				6:28
06	AE: StarWars + Dataviz				5:18

Assignment	Title	Due
<i>Due this week</i>		
Lab 00	Hello IDS!	Tue, 29 Sep, 16:00 UK
HW 00	Pet names	Thur, 1 Oct, 16:00 UK
EC	<a href="#">Extra credit</a>	Multiple (see assignment)

[introts.org](https://introts.org)

The screenshot shows the 'sta199-fa20-002.netlify.app' website. The main content area features a large heading 'Week 01: Intro' and a list of resources: LECTURES, READINGS, ASSIGNMENTS, and OTHER RESOURCES. Below this is a 'Lectures' section with a table listing lecture materials for Monday, Wednesday, and Thursday. The table has columns for 'SLIDES', 'VIDEOS', and 'APPLICATION EXERCISE (AE)'. Below the table is a 'Readings' section.

	SLIDES	VIDEOS	APPLICATION EXERCISE (AE)
Monday	<a href="#">Welcome to STA 199!</a>	<a href="#">Welcome to STA 199!</a>	<a href="#">Live lecture slides</a>
		<a href="#">Tour of website + Sakai</a>	<a href="#">UN Votes</a>
Wednesday	<a href="#">Meet the Toolkit</a>	<a href="#">Meet the Toolkit</a>	<a href="#">Tour of RStudio + GitHub</a>

[sta199-fa20-002.netlify.app](https://sta199-fa20-002.netlify.app)

**Distill +  
Blogdown**

**Motivation**

**Making a  
website**

**Tips**

# Packages to make websites in R



# Distill

- Designed to make websites for scientific communication
- Supports R Markdown, LaTeX, citations, footnotes, etc.
- Structure is great for blogs



# Distill - Pros and cons

## Pros

- Make a nice website “quickly”
- Simple file structure makes it easy to update

## Cons

- Same basic design for every site (there are new templates!)

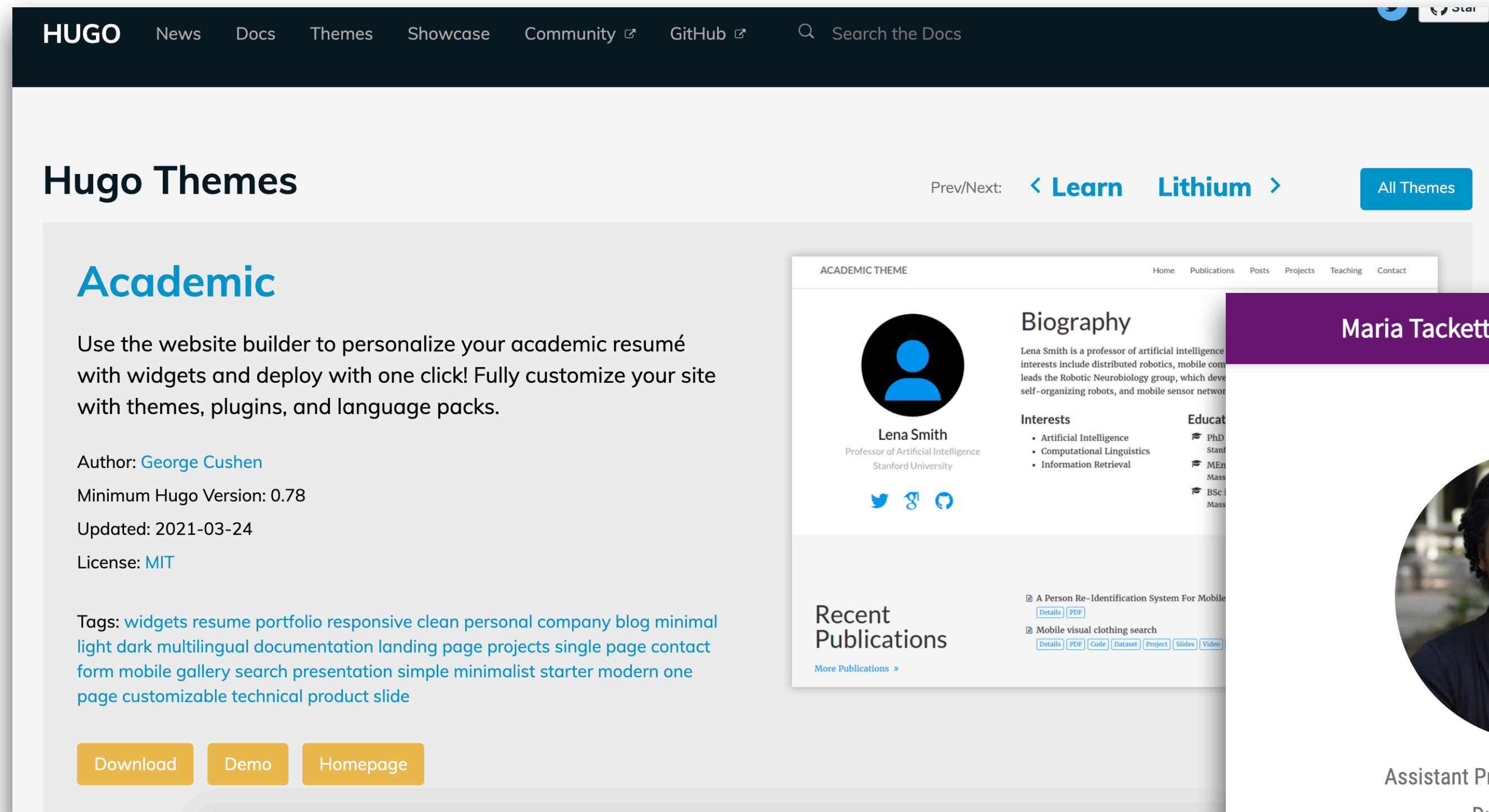
**More on Distill soon!**

# Blogdown

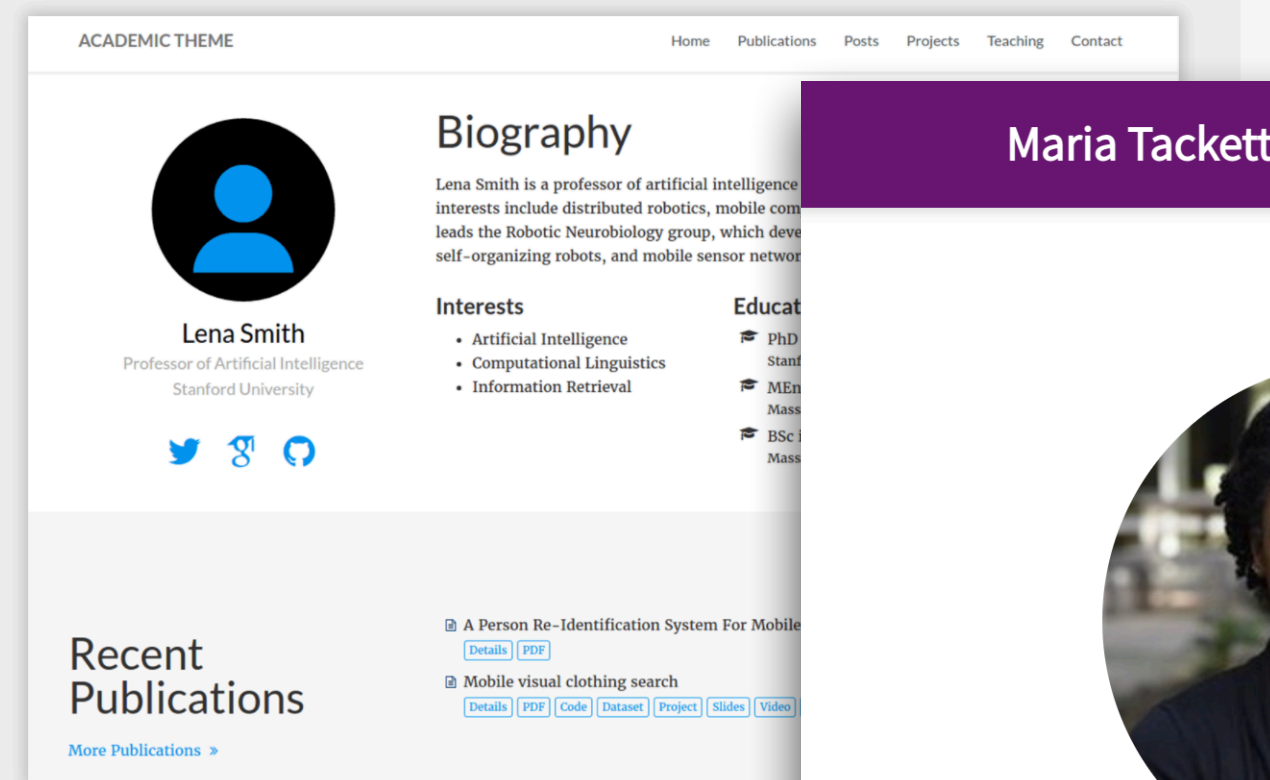


- Designed for building websites using Hugo, a website generator
- Access a lot of different website designs
- Use R Markdown and R functions to build and maintain website

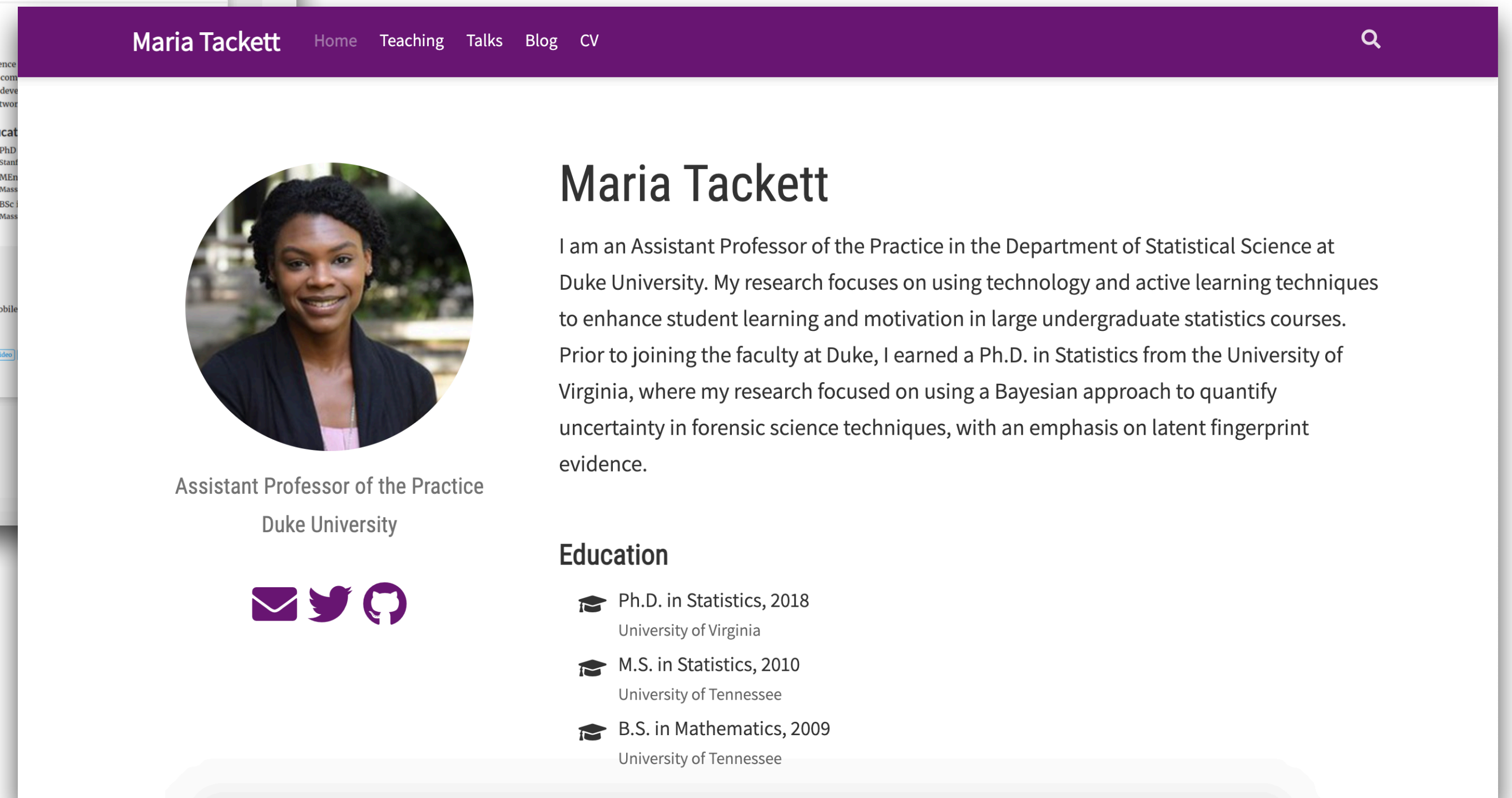
# Hugo Academic theme



The screenshot shows the Hugo Themes website. At the top, there is a navigation bar with links for News, Docs, Themes, Showcase, Community, and GitHub, along with a search bar. The main content area is titled "Hugo Themes" and features a section for the "Academic" theme. The description states: "Use the website builder to personalize your academic resumé with widgets and deploy with one click! Fully customize your site with themes, plugins, and language packs." It lists the author as George Cushen, the minimum Hugo version as 0.78, and the update date as 2021-03-24. A list of tags includes: widgets, resume, portfolio, responsive, clean, personal, company, blog, minimal, light, dark, multilingual, documentation, landing page, projects, single page, contact form, mobile, gallery, search, presentation, simple, minimalist, starter, modern, one page, customizable, technical, product, slide. At the bottom of the section are three buttons: Download, Demo, and Homepage.



This screenshot shows a personal website using the Academic theme. The header includes navigation links for Home, Publications, Posts, Projects, Teaching, and Contact. The main content area features a profile for Lena Smith, a Professor of Artificial Intelligence at Stanford University. It includes a biography, interests (Artificial Intelligence, Computational Linguistics, Information Retrieval), and a list of recent publications with links to details, PDFs, code, datasets, projects, slides, and videos.



This screenshot shows a personal website for Maria Tackett using the Academic theme. The header includes navigation links for Home, Teaching, Talks, Blog, and CV. The main content area features a profile for Maria Tackett, an Assistant Professor of the Practice at Duke University. It includes a biography, a list of education (Ph.D. in Statistics, 2018 from University of Virginia; M.S. in Statistics, 2010 from University of Tennessee; B.S. in Mathematics, 2009 from University of Tennessee), and social media links for email, Twitter, and GitHub.

Popular for making

- Personal websites
- Course websites

[www.mariatackett.net](http://www.mariatackett.net)



# New blogdown site

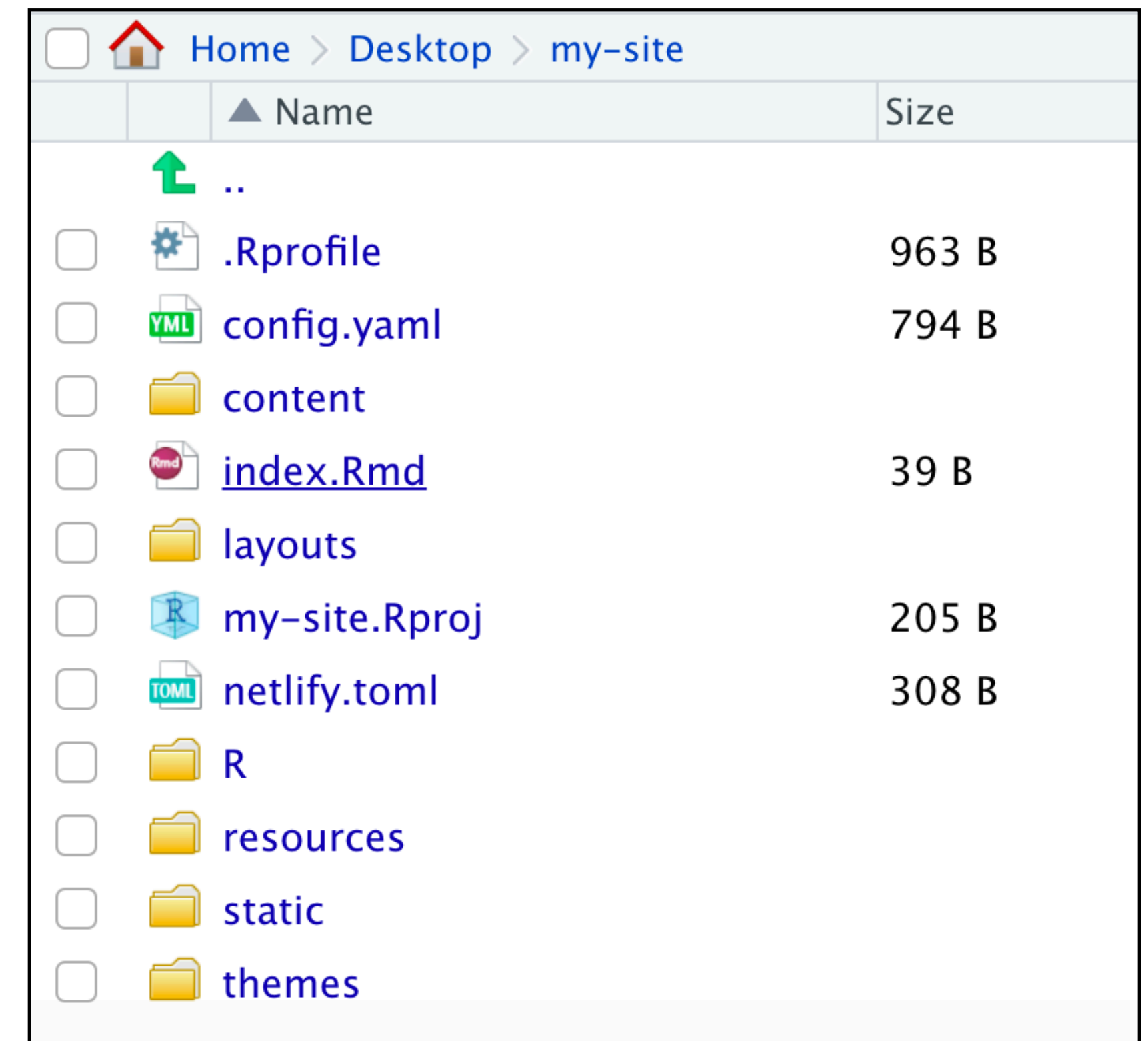
```
#install.packages("blogdown")
#blogdown::install_hugo()

blogdown::new_site(theme = "yihui/hugo-lithium")
```

## Markdown files with web contents

```
1 ---
2 date: "2016-05-05T21:48:51-07:00"
3 title: About
4 ---
5
6 This is a "hello world" example website for the
  [**blogdown**](https://github.com/rstudio/blogdown) package. The
  theme was forked from
  [@jrutheiser/hugo-lithium-theme](https://github.com/jrutheiser/hugo-lithium-theme) and modified by [Yihui Xie](https://github.com/yihui/hugo-lithium).
7
```

## File structure



	Name	Size
	..	
	.Rprofile	963 B
	config.yaml	794 B
	content	
	index.Rmd	39 B
	layouts	
	my-site.Rproj	205 B
	netlify.toml	308 B
	R	
	resources	
	static	
	themes	

# New blogdown site

```
#install.packages("blogdown")
```

```
#blogdown:
```

```
blogdown::
```

[About](#)[GitHub](#)[Twitter](#)

## About

This is a “hello world” example website for the **blogdown** package. The theme was forked from [@jrutheiser/hugo-lithium-theme](#) and modified by [Yihui Xie](#).

[RSS feed](#) / Made with 

```
1 ---
2 date: "2016-0
3 title: About
4 ---
5
6 This is a "he
7 blogdown
theme was for
@jrutheiser/
-lithium-them
Xie](https://g
```

ize

63 B

94 B

9 B

05 B

08 B

static

themes

# Blogdown - Pros and cons

## Pros

- A lot of web design templates to choose from
- Can make a highly customized website

## Cons

- Can take time to figure out file structure
- Hugo updates can sometimes break things (There are ways around this)

**Motivation**



**Distill +  
Blogdown**

**Tips**

**Making a  
website**

← → ↻ matakett.github.io/rladies-build-websites/ ☆ 📄 ⚙️ 🌐 🗺️ Update ⋮

Building Websites in RStudio More websites Example article



## Building Websites in RStudio

SlidesTwitterGitHubEmail

### Welcome! 😊

Welcome! This website is a demo for the *Building Websites in RStudio* talk presented at [RLadies Amherst](#) and [RLadies Baltimore](#) in Spring 2021. The site includes slides and additional resources to learn more about using [Distill](#) and [Blogdown](#) making websites in RStudio.

### Resources 📖

#### Distill

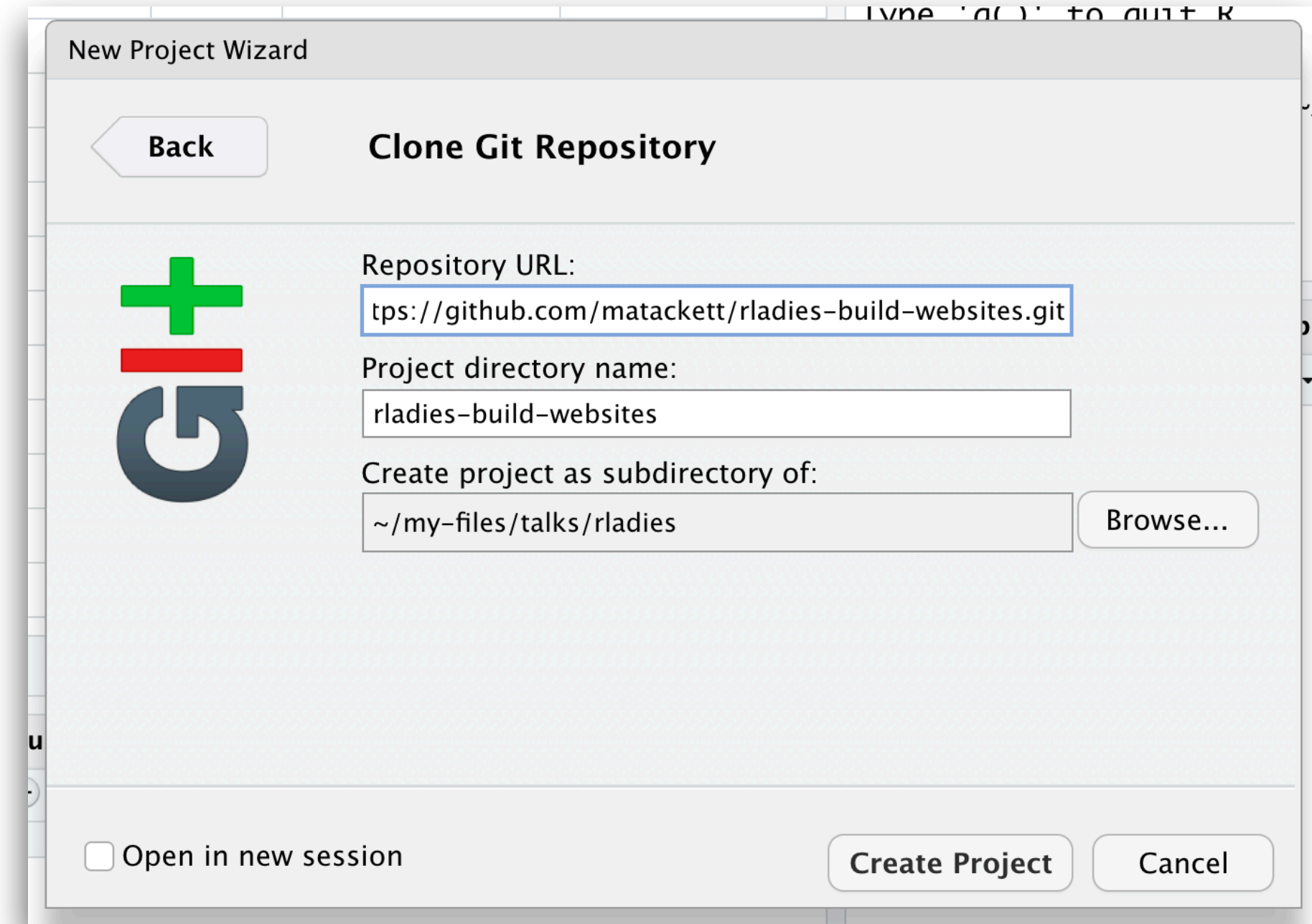
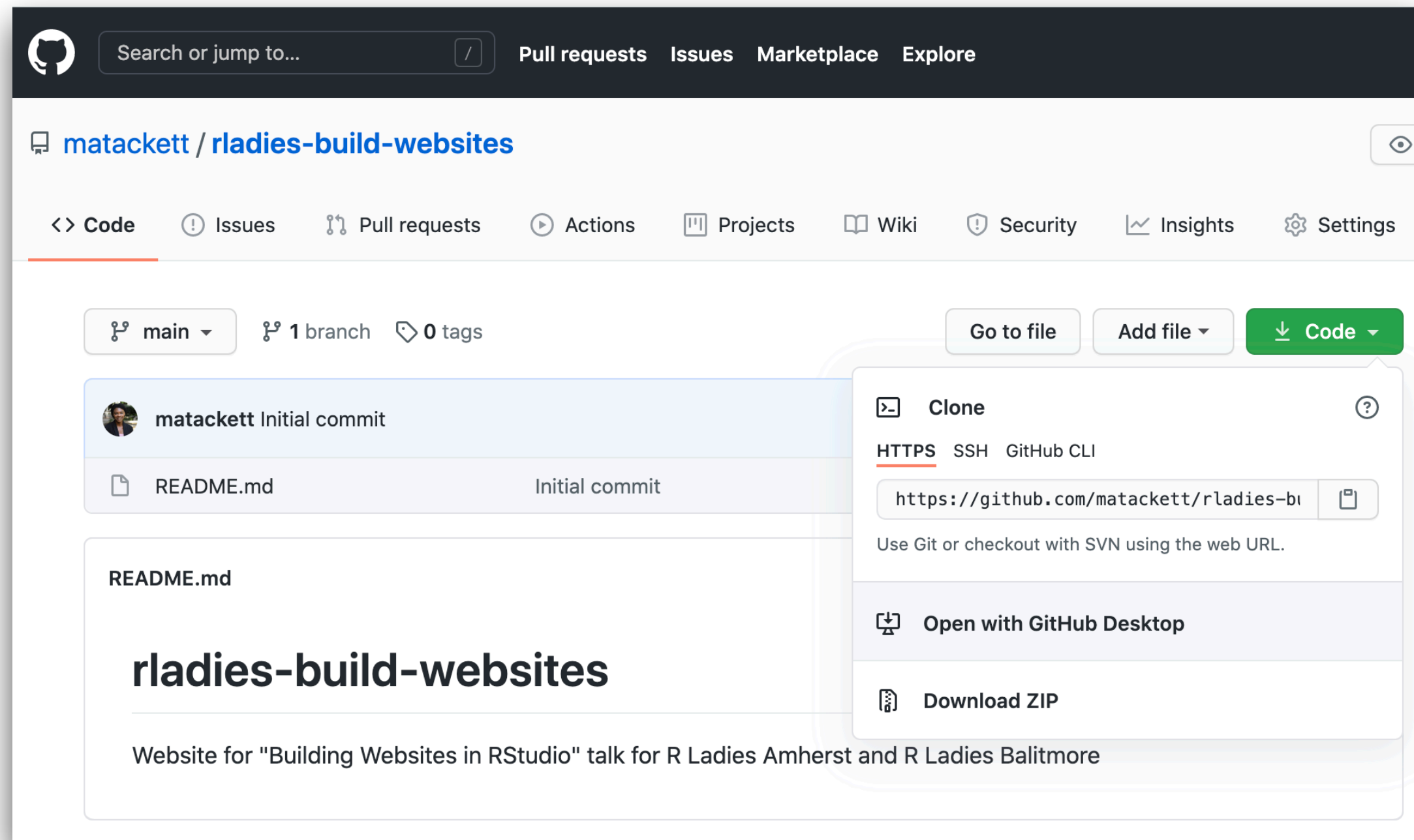
- [Distill for R Markdown](#) by JJ Allaire, Rich Iannone, Alison Presmanes Hill, Yihui Xie ORCID ID
- [\(Re-\)introducing Distill for R Markdown](#) blog post by Alison Hill and JJ Allaire
- [M-F-E-O: postcards + distill](#) blog post by Alison Hill
- [postcards package](#) by Sean Kross

#### Blogdown

- [blogdown: Creating Websites with R Markdown](#) by Yihui Xie, Amber Thomas, Alison Hill
- [Blog posts](#) by Alison Hill

[matakett.github.io/rladies-build-websites](https://matakett.github.io/rladies-build-websites)

# Start with a GitHub repo



- Make a repo in GitHub
- The name will become part of the URL for the website

- Clone the repo
- Start a new RStudio project

# Create new Distill site

```
library(distill)
create_website(dir = ".", title = "Building Websites in RStudio", gh_pages = TRUE)
```

```
.
├── rladies-build-websites.Rproj
├── docs/
├── _site.yml
├── index.Rmd
└── about.Rmd
```

File structure

# Create new Distill site

```
library(distill)
create_website(dir = ".", title = "Building Websites in RStudio", gh_pages = TRUE)
```

```
1 |---
2 |title: "Building Websites in RStudio"
3 |description: |
4 |  Welcome to the website. I hope you enjoy it!
5 |site: distill::distill_website
6 |---
7 |
8 |```{r setup, include=FALSE}
9 |knitr::opts_chunk$set(echo = FALSE)
10|
11|# Learn more about creating websites with Distill at:
12|# https://rstudio.github.io/distill/website.html
13|
14|# Learn more about publishing to GitHub Pages at:
15|# https://rstudio.github.io/distill/publish\_website.html#github-pages
16|
17|```
18|
```

## index.Rmd

- ✓ Home page for the website
- ✓ site key in the YAML



# Create new Distill site

```
library(distill)
create_website(dir = ".", title = "Building Websites in RStudio", gh_pages = TRUE)
```

```
1 name: "rladies-build-website"
2 title: "Building Websites in RStudio"
3 description: |
4   Building Websites in RStudio
5 output_dir: "docs"
6 navbar:
7   right:
8     - text: "Home"
9       href: index.html
10    - text: "About"
11      href: about.html
12 output: distill::distill_article
13
14
```

`_site.yml`

✓ Website configuration file

# \_site.yml

```
1 name: "rladies-build-website"
2 title: "Building Websites in RStudio"
3 description: |
4   Building Websites in RStudio
5 output_dir: "docs"
6 navbar:
7   right:
8     - text: "Home"
9       href: index.html
10    - text: "About"
11      href: about.html
12 output: distill::distill_article
13
14
```

navbar:

Navigation bar at top of page

text:

Text for link in navigation bar

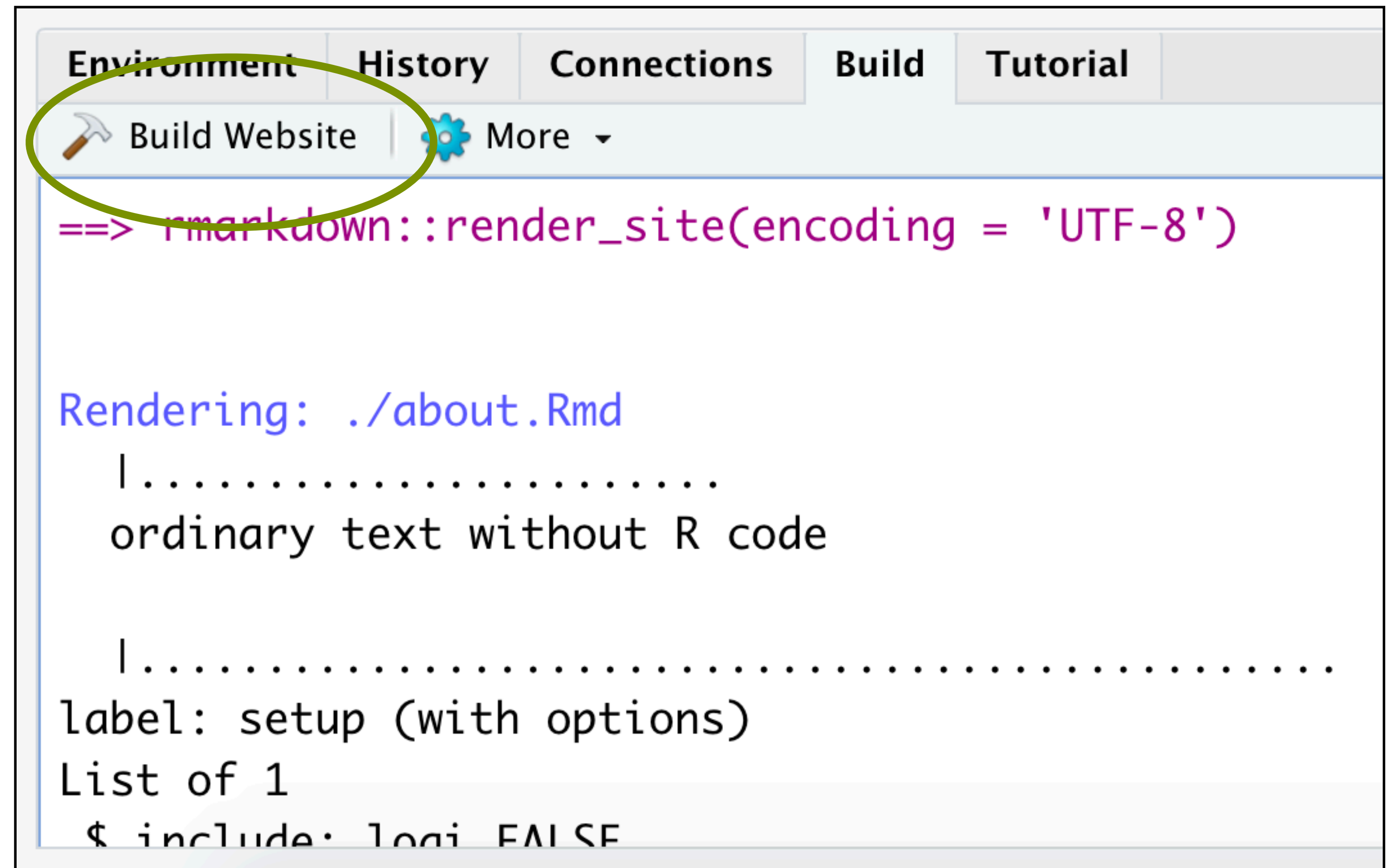
href:

(Relative) link to page

# Build website

Click to build and view website.

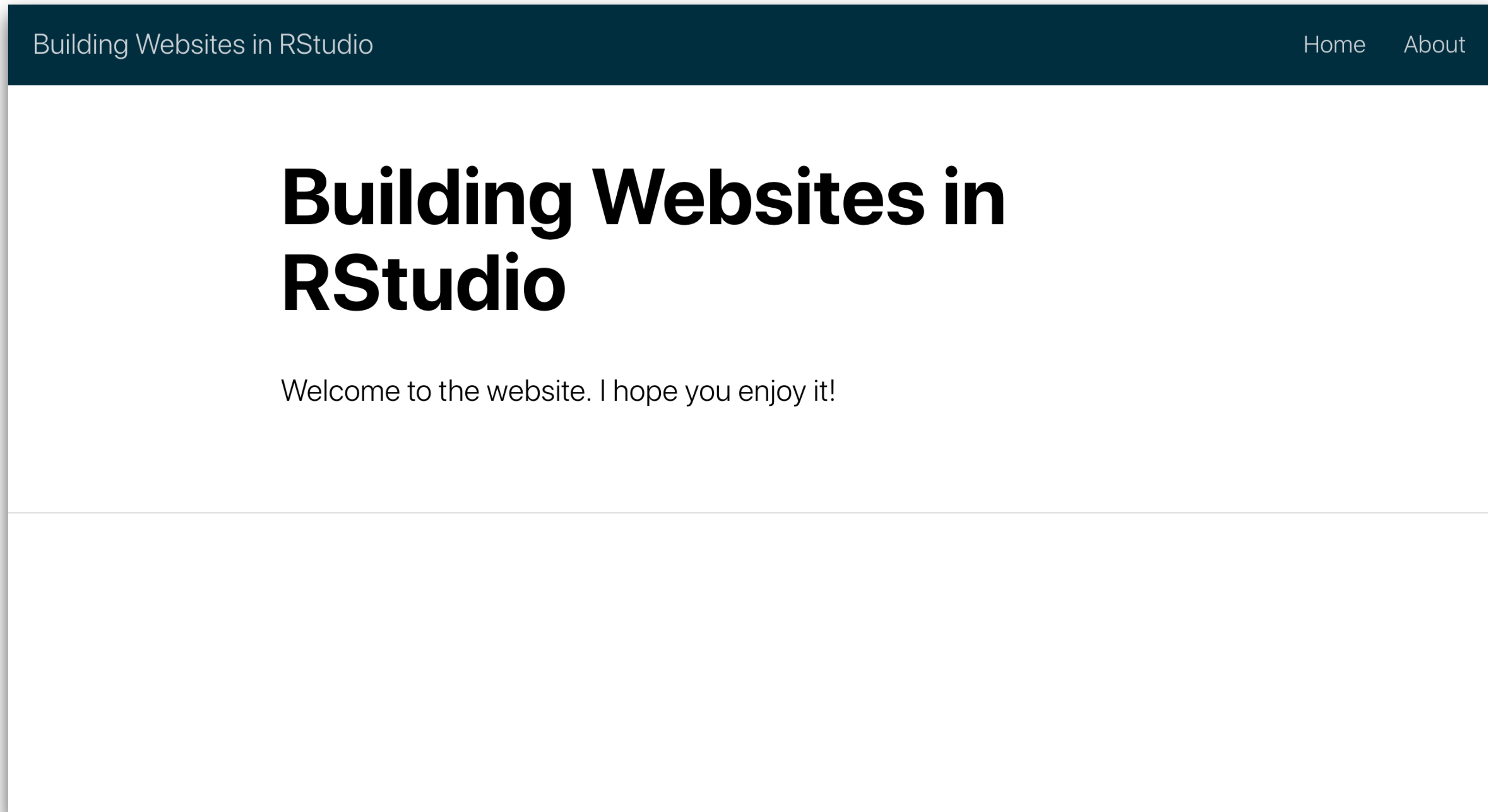
Use periodically to see the changes.



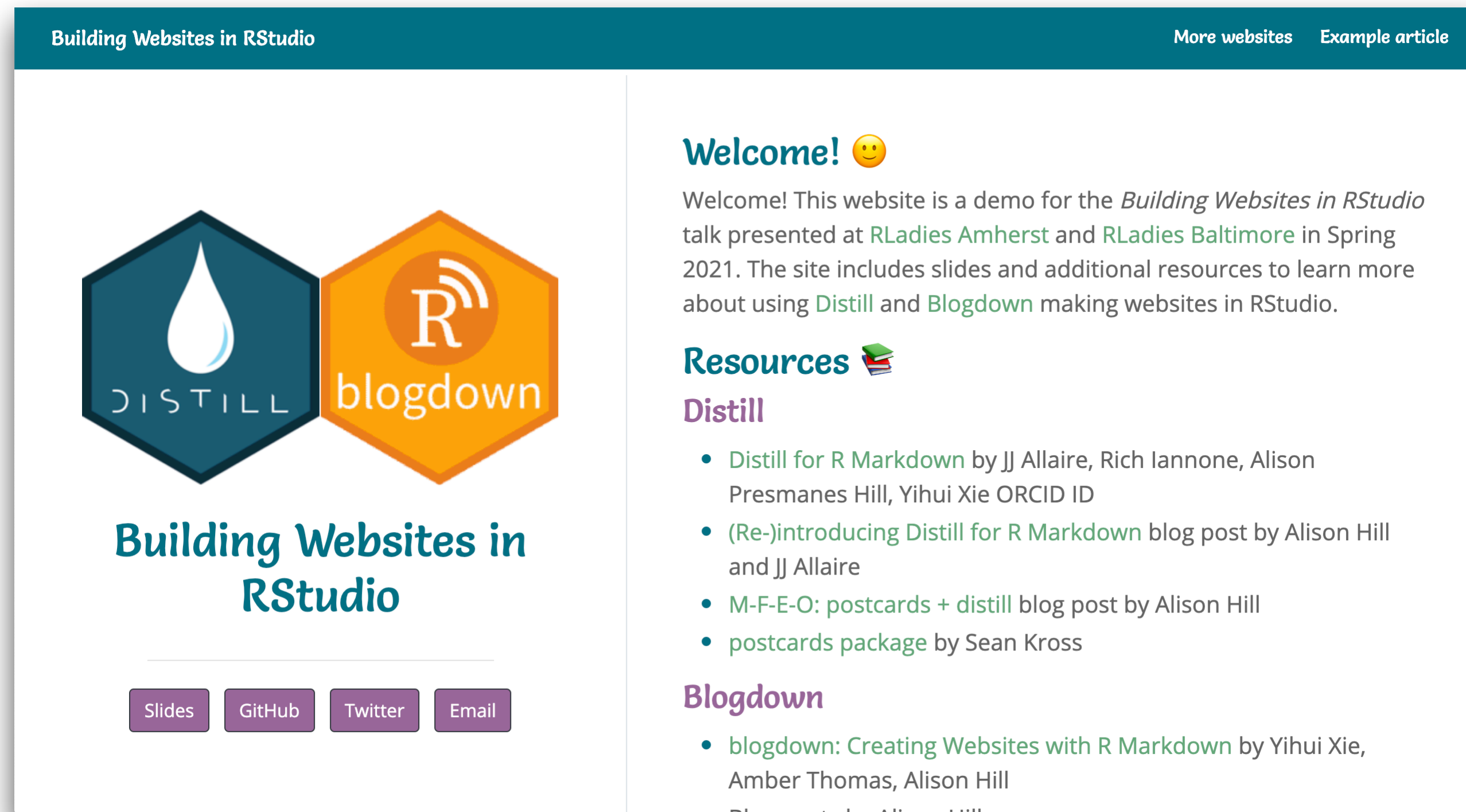
The screenshot shows the RStudio interface with the 'Build' tab selected. The 'Build Website' button, represented by a hammer icon, is circled in green. Below the button, the console output shows the execution of the `rmarkdown::render_site(encoding = 'UTF-8')` command. The output indicates that rendering is in progress for `./about.Rmd` and shows the start of the rendered content, including a section header and a list of options.

```
==> rmarkdown::render_site(encoding = 'UTF-8')  
  
Rendering: ./about.Rmd  
|.....  
ordinary text without R code  
  
|.....  
label: setup (with options)  
List of 1  
$ include: logi FALSE
```

# Let's take a look!



# Make the home page



- Make a new page using the **postcards** R package
- Template that gives us the basic structure of the page.
- All we need to do is customize it!

*“Create simple, beautiful personal websites and landing pages using only R Markdown.” - postcards GitHub site*

# Make new page using postcards


```
#install.packages("postcards")
library(distill)
create_article(file = "home", template = "trestles", package = "postcards")
```

home.Rmd

```
1 ---
2 title: "Frank Hermosillo"
3 image: "frank.jpg"
4 links:
5   - label: LinkedIn
6     url: "https://linkedin.com/"
7   - label: Twitter
8     url: "https://twitter.com/"
9   - label: GitHub
10    url: "https://github.com/"
11   - label: Email
12    url: "mailto:email@email.com"
13 output:
14   postcards::trestles
15 ---
16
17 ## Bio
18
19 Frank Hermosillo studies neural networks and their applications at
20 Google Brain. His research focuses on differentiable network pruning
21 approximation and decentralized gradient inversion mechanics. He frequently collaborates
22 with researchers who study machine learning, computer vision, and cognitive
23 science.
```

home.html

Building Websites in RStudio Home About



## Frank Hermosillo

[LinkedIn](#) [Twitter](#) [GitHub](#) [Email](#)

### Bio

Frank Hermosillo studies neural networks and their applications at Google Brain. His research focuses on differentiable network pruning approximation and decentralized gradient inversion mechanics. He frequently collaborates with researchers who study machine learning, computer vision, and cognitive science. His work has been featured in WIRED, The Atlantic, Newsweek, and The New York Times Magazine.

### Education

**Massachusetts Institute of Technology** | Cambridge, MA  
Ph.D. in Computer Science | September 2009 - May 2014

**The University of California, Berkeley** | Berkeley, CA  
B.S. in Computer Science | September 2005 - May 2009

# Update home.Rmd

## YAML

```
1 ---
2 title: "Building Websites in RStudio"
3 image: "img/website-logo.png"
4 links:
5   - label: Slides
6     url: "rladies-build-websites.pdf/"
7   - label: Twitter
8     url: "https://twitter.com/MT\_Statistics"
9   - label: GitHub
10    url: "https://github.com/matackett"
11   - label: Email
12    url: "mailto:maria.tackett@duke.edu"
13 output:
14   postcards::trestles
15 ---
```

## File structure

```
.
├── rladies-build-websites.Rproj
├── docs/
├── _site.yml
├── index.Rmd
├── about.Rmd
├── home.Rmd
└── img/website-logo.png
```

# Update home.Rmd

## Body

```
16
17 ▾ ## Welcome! `r emo::ji("slightly_smiling_face")`
18
19 Welcome! This website is a demo for the *Building Websites in RStudio*
talk presented at [RLadies
Amherst](https://github.com/RLadies-Amherst/RLadies-Amherst) and [RLadies
Baltimore](https://rladies-baltimore.github.io/) in Spring 2021. The site
includes slides and additional resources to learn more about using
[Distill](https://rstudio.github.io/distill/) and
[Blogdown](https://bookdown.org/yihui/blogdown/) making websites in
RStudio.
20
21 ▾ ## Resources `r emo::ji("books")`
22
23 ▾ ### Distill
24
25 - [Distill for R Markdown](https://rstudio.github.io/distill/) by JJ
Allaire, Rich Iannone, Alison Presmanes Hill, Yihui Xie ORCID ID
26 - [(Re-)introducing Distill for R
Markdown](https://blog.rstudio.com/2020/12/07/distill/) blog post by
Alison Hill and JJ Allaire
27 - [M-F-E-0: postcards +
distill](https://alison.rbind.io/post/2020-12-22-postcards-distill/) blog
post by Alison Hill
28 - [postcards package](https://github.com/seankross/postcards#postcards)
by Sean Kross
```

- Using Markdown syntax
- Can include inline R code and R code chunks





## Building Websites in RStudio

Slides

GitHub

Twitter

Email

## Welcome! 😊

Welcome! This website is a demo for the *Building Websites in RStudio* talk presented at [RLadies Amherst](#) and [RLadies Baltimore](#) in Spring 2021. The site includes slides and additional resources to learn more about using [Distill](#) and [Blogdown](#) making websites in RStudio.

## Resources 📖

### Distill

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- [M-F-E-O: postcards + distill](#) blog post by Alison Hill
- [postcards package](#) by Sean Kross

### Blogdown

- [blogdown: Creating Websites with R Markdown](#) by Yihui Xie, Amber Thomas, Alison Hill

# Let's customize the page!

# Create a new theme

```
#format entire website  
create_theme("my-theme")
```

## my-theme.css

```
1  
2 /* base variables */  
3  
4 /* Edit the CSS properties in this file to create a custom  
5 Distill theme. Only edit values in the right column  
6 for each row; values shown are the CSS defaults.  
7 To return any property to the default,  
8 you may set its value to: unset  
9 All rows must end with a semi-colon. */  
10  
11 /* Optional: embed custom fonts here with `@import` */  
12 /* This must remain at the top of this file. */  
13  
14  
15  
16 html {  
17   /*-- Main font sizes --*/  
18   --title-size: 50px;  
19   --body-size: 1.06rem;  
20   --code-size: 14px;  
21   --aside-size: 12px;  
22   --fig-cap-size: 13px;  
23   /*-- Main font colors --*/  
24   --title-color: #000000;  
25   --header-color: rgba(0, 0, 0, 0.8);  
26   --body-color: rgba(0, 0, 0, 0.8);  
27   --aside-color: rgba(0, 0, 0, 0.6);
```

## \_site.yml

```
1 name: "rladies-build-website"  
2 title: "Building Websites in RStudio"  
3 description: |  
4   Building Websites in RStudio  
5   output_dir: "docs"  
6   theme: my-theme.css  
7   navbar:  
8     right:  
9     - text: "Home"  
10      href: home.html  
11     - text: "About"  
12      href: about.html  
13 output: distill::distill_article
```

# Customize the theme

```
14 @import url('https://fonts.googleapis.com/css2?family=Open+Sans&display=swap');
15 @import url('https://fonts.googleapis.com/css2?family=Roboto+Slab&family
=Salsa&display=swap');
16 @import url('https://fonts.googleapis.com/css2?family=Salsa&display=swap');
17
18
19 html {
20   /*-- Main font sizes --*/
21   --title-size:      50px;
22   --body-size:       1.06rem;
23   --code-size:       14px;
24   --aside-size:      12px;
25   --fig-cap-size:    13px;
26
27   /*-- Main font colors --*/
28   --title-color:     #077187;
29   --header-color:    #077187;
30   --body-color:      #686868;
31   --aside-color:     #686868;
32   --fig-cap-color:   #686868;
33
34   /*-- Specify custom fonts ~~~ must be imported above --*/
35   --heading-font:    "Salsa";
36   --mono-font:       monospace;
37   --body-font:       "Open Sans";
38   --navbar-font:     "Salsa"; /* websites + blogs only */
```

Import Google fonts

Apply custom fonts

# Customize the theme

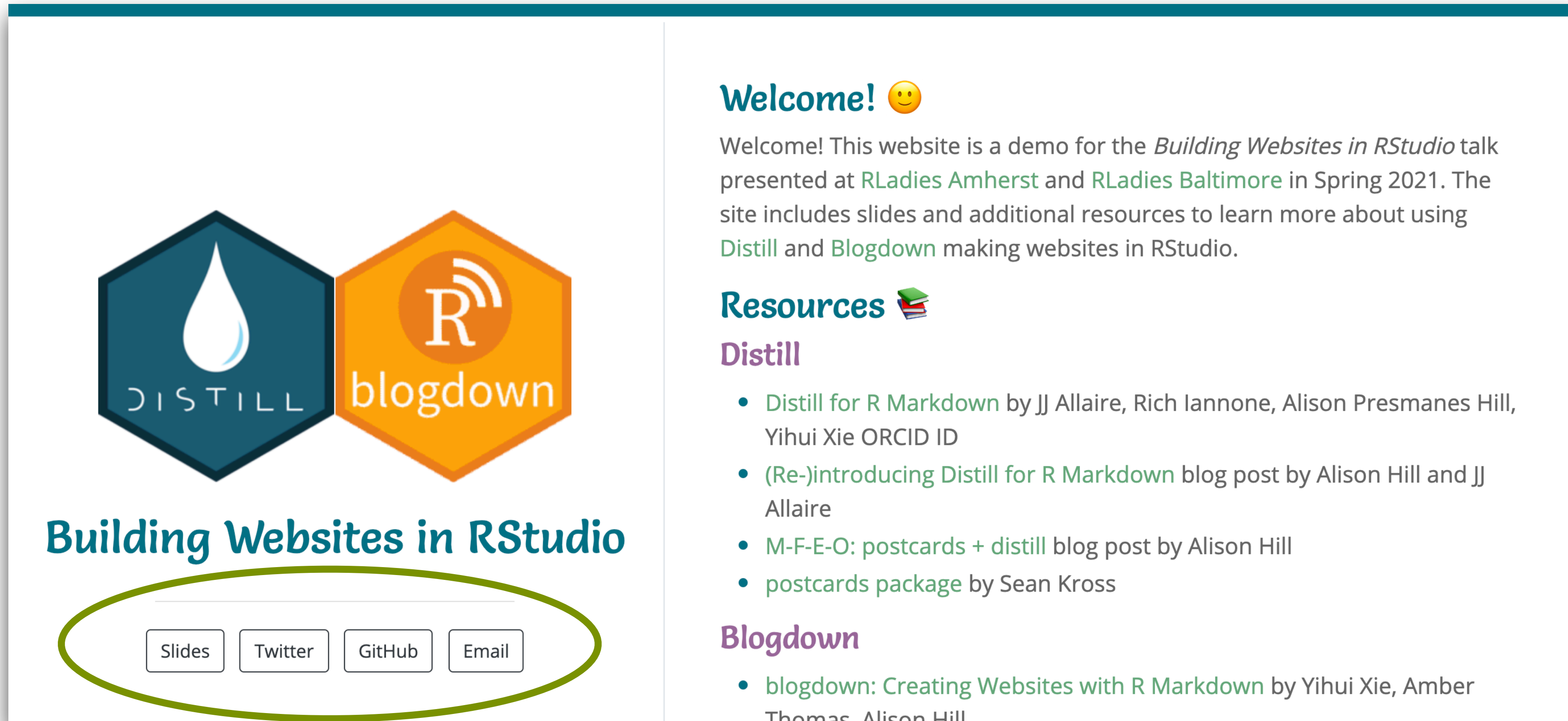
```
14 @import url('https://fonts.googleapis.com/css2?family=Open+Sans&display=swap');
15 @import url('https://fonts.googleapis.com/css2?family=Roboto+Slab&family
=Salsa&display=swap');
16 @import url('https://fonts.googleapis.com/css2?family=Salsa&display=swap');
17
18
19 html {
20   /*-- Main font sizes --*/
21   --title-size:      50px;
22   --body-size:       1.06rem;
23   --code-size:       14px;
24   --aside-size:      12px;
25   --fig-cap-size:    13px;
26
27   /*-- Main font colors --*/
28   --title-color:     #077187;
29   --header-color:    #077187;
30   --body-color:      #686868;
31   --aside-color:     #686868;
32   --fig-cap-color:   #686868;
33
34   /*-- Specify custom fonts ~~~ must be imported above --*/
35   --heading-font:    "Salsa";
36   --mono-font:       monospace;
37   --body-font:       "Open Sans";
38   --navbar-font:     "Salsa"; /* websites + blogs only */
```

Customize font size  
and font colors

[Pantone Color Picker](#)

[colors.co](https://www.colors.co)

# Customized home.html



**Welcome!** 😊

Welcome! This website is a demo for the *Building Websites in RStudio* talk presented at [RLadies Amherst](#) and [RLadies Baltimore](#) in Spring 2021. The site includes slides and additional resources to learn more about using [Distill](#) and [Blogdown](#) making websites in RStudio.

**Resources** 📖

**Distill**

- [Distill for R Markdown](#) by JJ Allaire, Rich Iannone, Alison Presmanes Hill, Yihui Xie ORCID ID
- [\(Re-\)introducing Distill for R Markdown](#) blog post by Alison Hill and JJ Allaire
- [M-F-E-O: postcards + distill](#) blog post by Alison Hill
- [postcards package](#) by Sean Kross

**Blogdown**

- [blogdown: Creating Websites with R Markdown](#) by Yihui Xie, Amber Thomas, Alison Hill

**Really close! But how do I make the buttons colorful?**

# Sometimes it takes a little digging...

How do I customize  
the buttons???



I can customize  
the `.btn` class!



`docs/home.html`

```
1035 <li class="list-inline-item">
1036 <a href=https://twitter.com/MT_Statistics>
1037 <button type="button" class="btn btn-outline-dark mb-2">
1038     Twitter
1039 </button>
1040 </a>
1041 </li>
```

# Sometimes it takes a little digging...

Why doesn't this  
code work???



Let's do some  
digging!



my-theme.css

```
119 ▾ .btn {  
120     background-color: #9C6B9C;  
121     color: #FFFFFF;  
122 ▲ }
```

# Sometimes it takes a little digging...

Add `!important` tag to  
override button styling

Thanks internet!

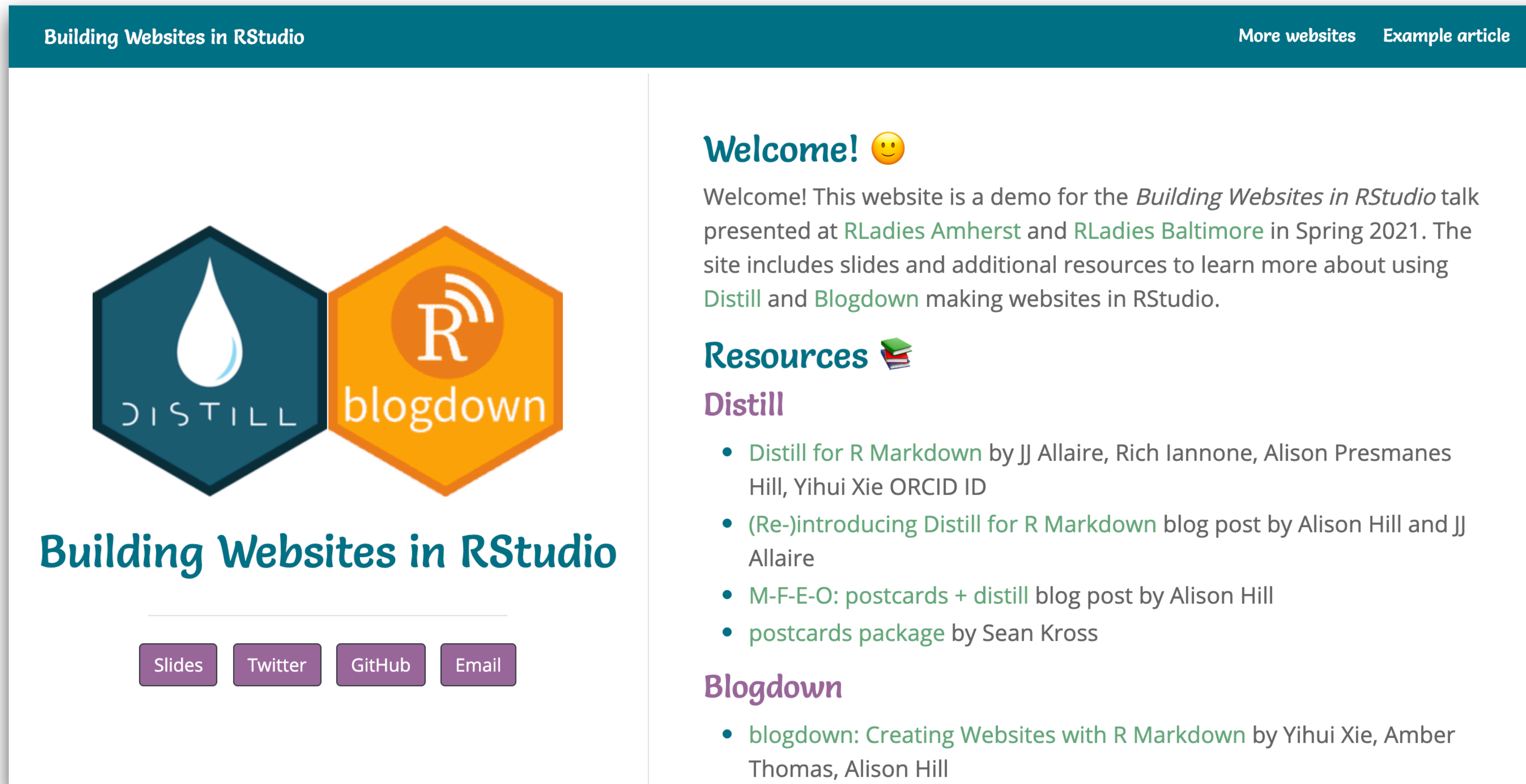


my-theme.css

```
119 ▾ .btn {  
120     background-color: #9C6B9C !important;  
121     color: #FFFFFF;  
122 ▲ }
```





# Let's see the updated site!



The screenshot shows a website with a teal header. On the left, there are two hexagonal logos: a dark blue one with a white water drop and the word 'DISTILL' below it, and an orange one with a white 'R' logo and the word 'blogdown' below it. Below the logos is the title 'Building Websites in RStudio' in teal. Underneath the title are four purple buttons labeled 'Slides', 'Twitter', 'GitHub', and 'Email'. On the right side of the page, there is a 'Welcome!' section with a smiley face emoji, followed by a paragraph of text. Below that is a 'Resources' section with a stack of books emoji, containing two sub-sections: 'Distill' and 'Blogdown', each with a list of links.

Building Websites in RStudio More websites Example article



## Building Websites in RStudio

[Slides](#) [Twitter](#) [GitHub](#) [Email](#)

### Welcome! 😊

Welcome! This website is a demo for the *Building Websites in RStudio* talk presented at [RLadies Amherst](#) and [RLadies Baltimore](#) in Spring 2021. The site includes slides and additional resources to learn more about using [Distill](#) and [Blogdown](#) making websites in RStudio.

### Resources 📖

#### Distill

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- [M-F-E-O: postcards + distill](#) blog post by Alison Hill
- [postcards package](#) by Sean Kross

#### Blogdown

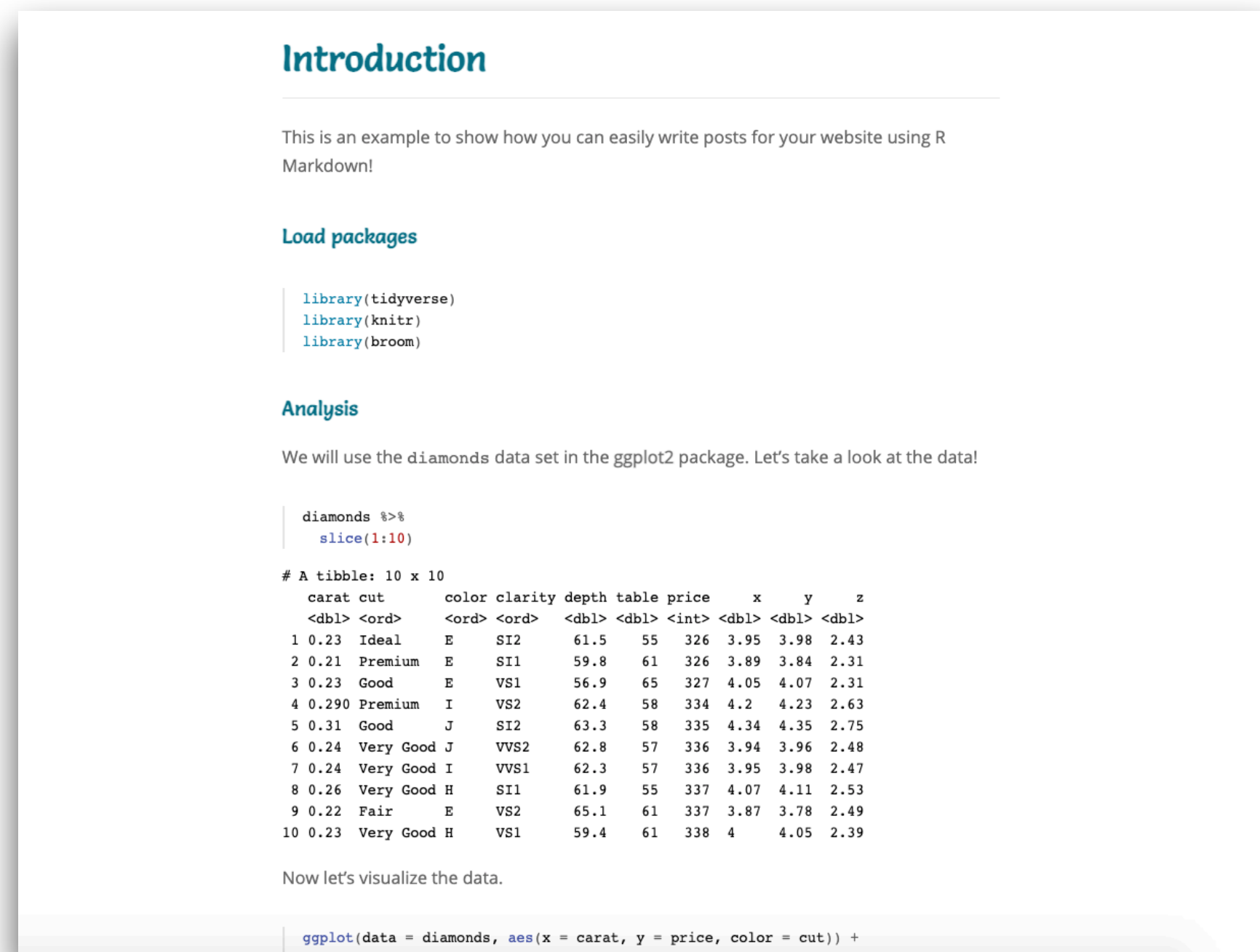
- [blogdown: Creating Websites with R Markdown](#) by Yihui Xie, Amber Thomas, Alison Hill

**Customized page + new pages in the menu**

# Add an article

```
create_article("example-rmarkdown")
```

example-rmarkdown.html



The screenshot shows an R Markdown document with the following content:

## Introduction

This is an example to show how you can easily write posts for your website using R Markdown!

### Load packages

```
library(tidyverse)
library(knitr)
library(broom)
```

### Analysis

We will use the diamonds data set in the ggplot2 package. Let's take a look at the data!

```
diamonds %>%
  slice(1:10)
```

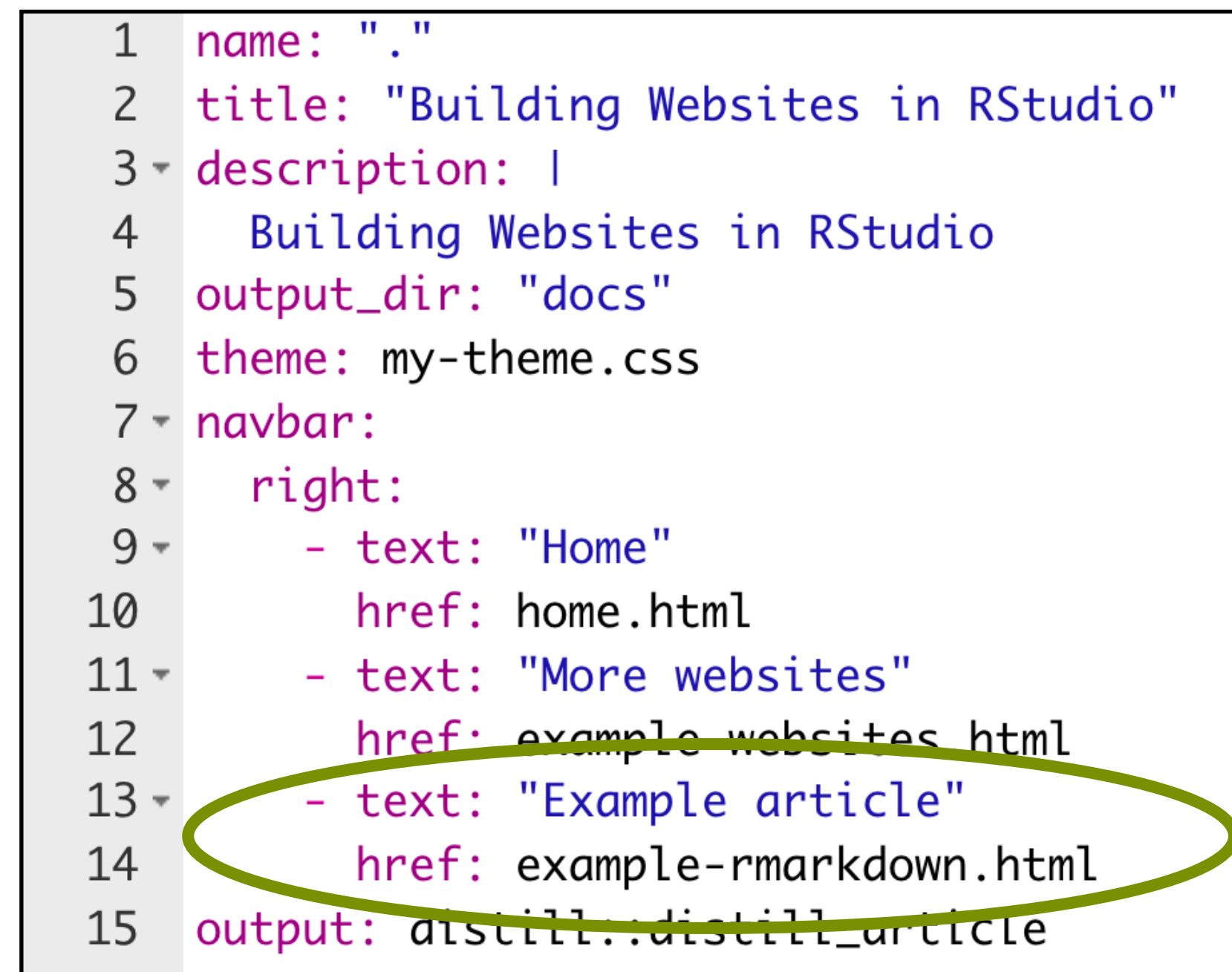
# A tibble: 10 x 10

carat	cut	color	clarity	depth	table	price	x	y	z	
1	0.23	Ideal	E	SI2	61.5	55	326	3.95	3.98	2.43
2	0.21	Premium	E	SI1	59.8	61	326	3.89	3.84	2.31
3	0.23	Good	E	VS1	56.9	65	327	4.05	4.07	2.31
4	0.290	Premium	I	VS2	62.4	58	334	4.2	4.23	2.63
5	0.31	Good	J	SI2	63.3	58	335	4.34	4.35	2.75
6	0.24	Very Good	J	VVS2	62.8	57	336	3.94	3.96	2.48
7	0.24	Very Good	I	VVS1	62.3	57	336	3.95	3.98	2.47
8	0.26	Very Good	H	SI1	61.9	55	337	4.07	4.11	2.53
9	0.22	Fair	E	VS2	65.1	61	337	3.87	3.78	2.49
10	0.23	Very Good	H	VS1	59.4	61	338	4	4.05	2.39

Now let's visualize the data.

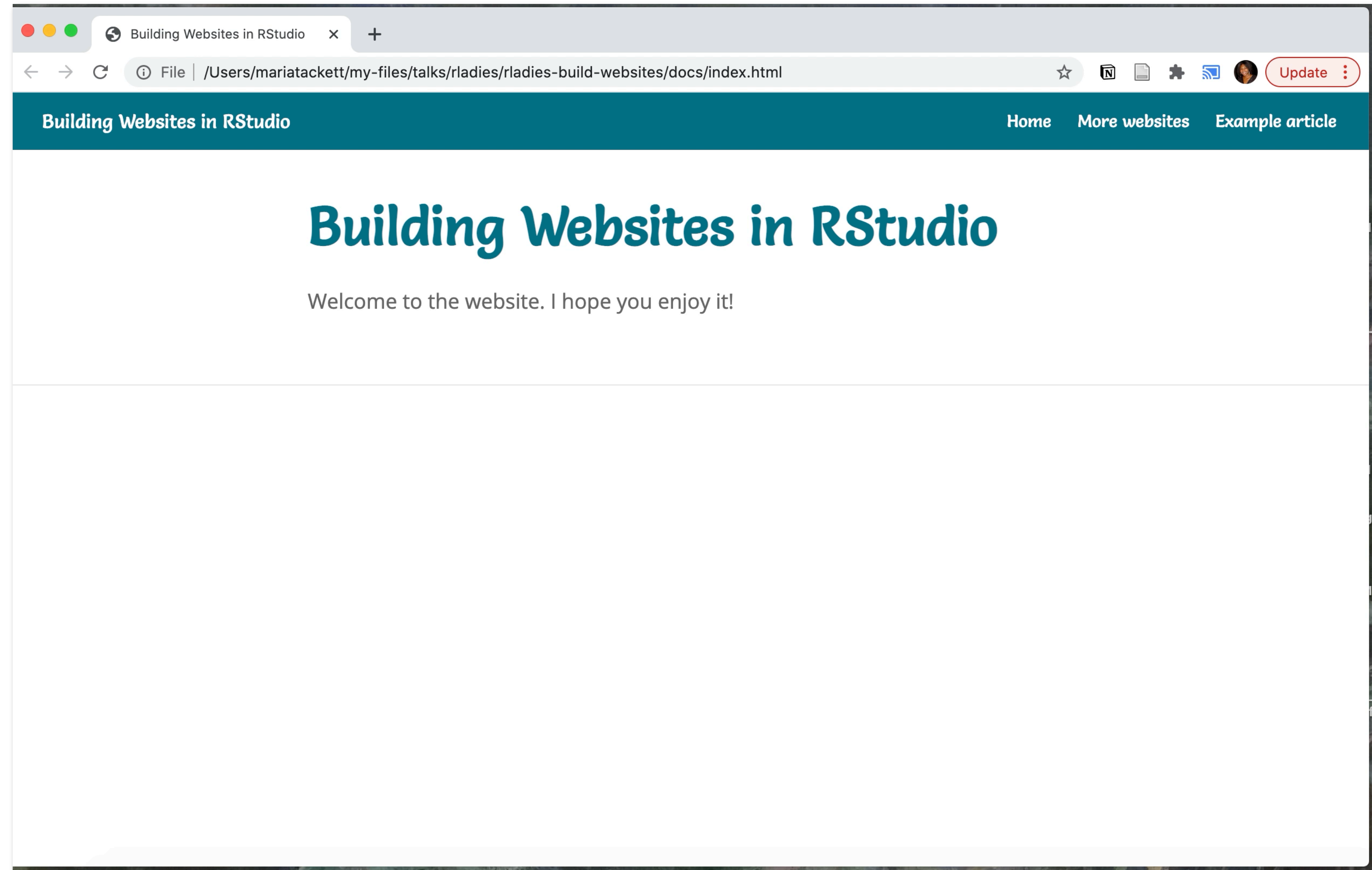
```
ggplot(data = diamonds, aes(x = carat, y = price, color = cut)) +
```

\_site.yml



```
1 name: "."
2 title: "Building Websites in RStudio"
3 description: |
4   Building Websites in RStudio
5 output_dir: "docs"
6 theme: my-theme.css
7 navbar:
8   right:
9     - text: "Home"
10      href: home.html
11     - text: "More websites"
12      href: example-websites.html
13     - text: "Example article"
14      href: example-rmarkdown.html
15 output: distill::distill_article
```

# One more thing...let's change the home page



# Make home.Rmd the home page

- index.Rmd is recognized as the home page in Distill
- index.Rmd needs the following in the yaml

site: distill::distill\_website

```
1 ---
2 title: "Building Websites in RStudio"
3 image: "img/website-logo.png"
4 links:
5   - label: Slides
6     url: "rladies-build-websites.pdf/"
7   - label: Twitter
8     url: "https://twitter.com/MT_Statistics"
9   - label: GitHub
10    url: "https://github.com/matackett"
11   - label: Email
12     url: "mailto:maria.tackett@duke.edu"
13 output:
14   postcards::trestles
15 site: distill::distill_website
16 ---
```

Changed file name  
to index.Rmd

# Make home.Rmd the home page

- index.Rmd is recognized as the home page in Distill
- index.Rmd needs the following in the yml

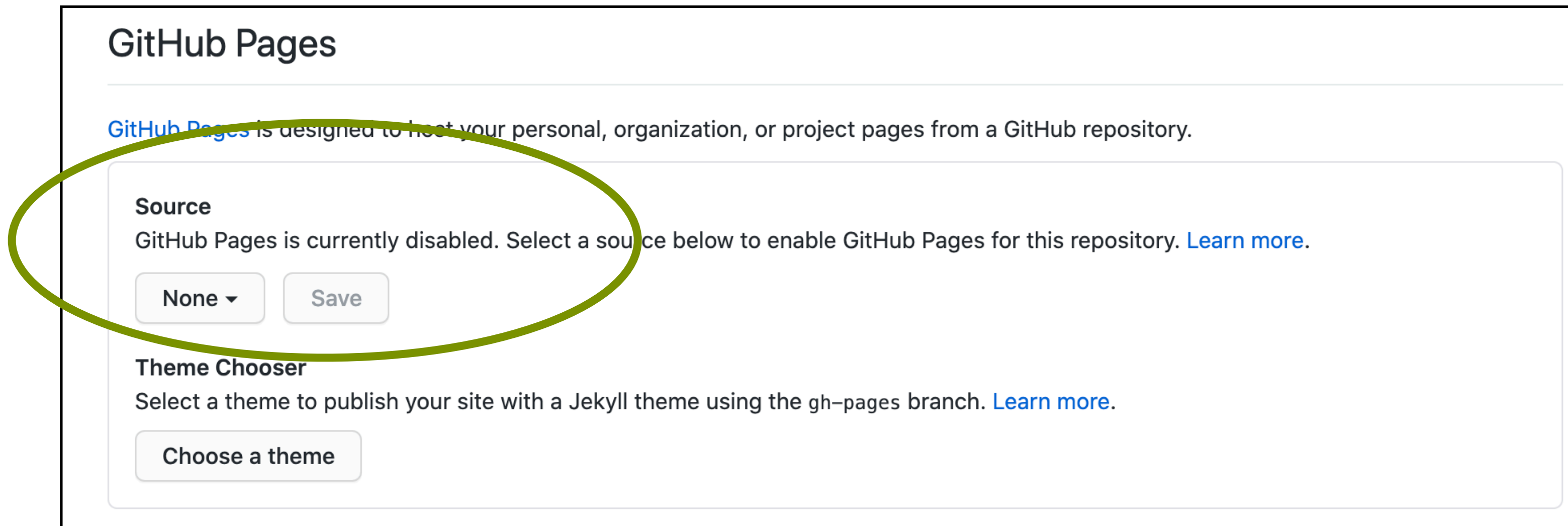
site: distill::distill\_website

```
1 ---
2 title: "Building Websites in RStudio"
3 image: "img/website-logo.png"
4 links:
5   - label: Slides
6     url: "rladies-build-websites.pdf/"
7   - label: Twitter
8     url: "https://twitter.com/MT_Statistics"
9   - label: GitHub
10    url: "https://github.com/matackett"
11   - label: Email
12     url: "mailto:maria.tackett@duke.edu"
13 output:
14   postcards::trestles
15 site: distill::distill_website
16 ---
```

```
.
├── rladies-build-websites.Rproj
├── docs/
├── _site.yml
├── index.Rmd
├── img/website-logo.png
├── my-theme.css
├── example-websites.Rmd
└── example-rmarkdown.Rmd
```

# Let's deploy the site!

- ✓ Push all the updated files to GitHub
- ✓ In the Settings of your GitHub repo...



**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 source below to enable GitHub Pages for this repository. [Learn more.](#)

None ▾ Save

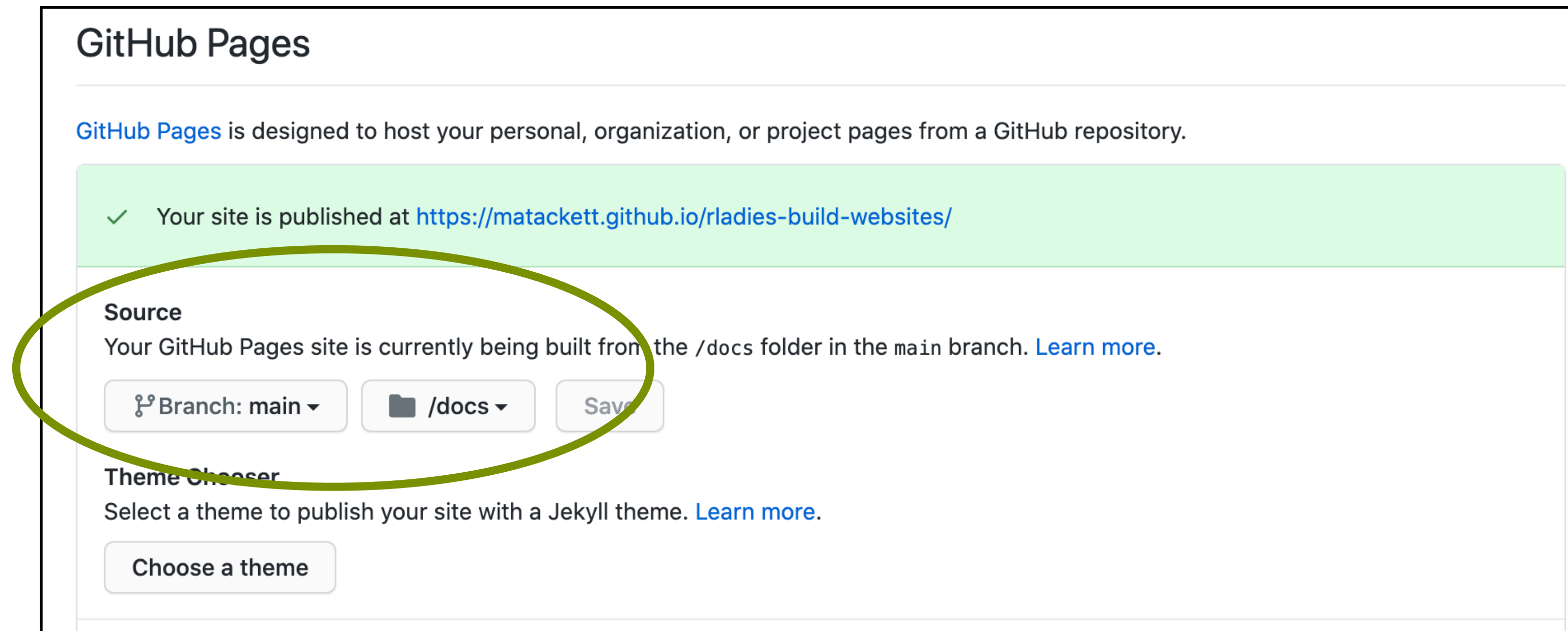
**Theme Chooser**  
Select a theme to publish your site with a Jekyll theme using the gh-pages branch. [Learn more.](#)

Choose a theme

Choose the branch  
+ folder that has  
site contents

# Let's deploy the site!

- ✓ Push all the updated files to GitHub
- ✓ In the Settings of your GitHub repo...



**GitHub Pages**

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

✓ Your site is published at <https://matackett.github.io/rladies-build-websites/>

**Source**  
Your GitHub Pages site is currently being built from the /docs folder in the main branch. [Learn more.](#)

Branch: main ▾ /docs ▾ Save

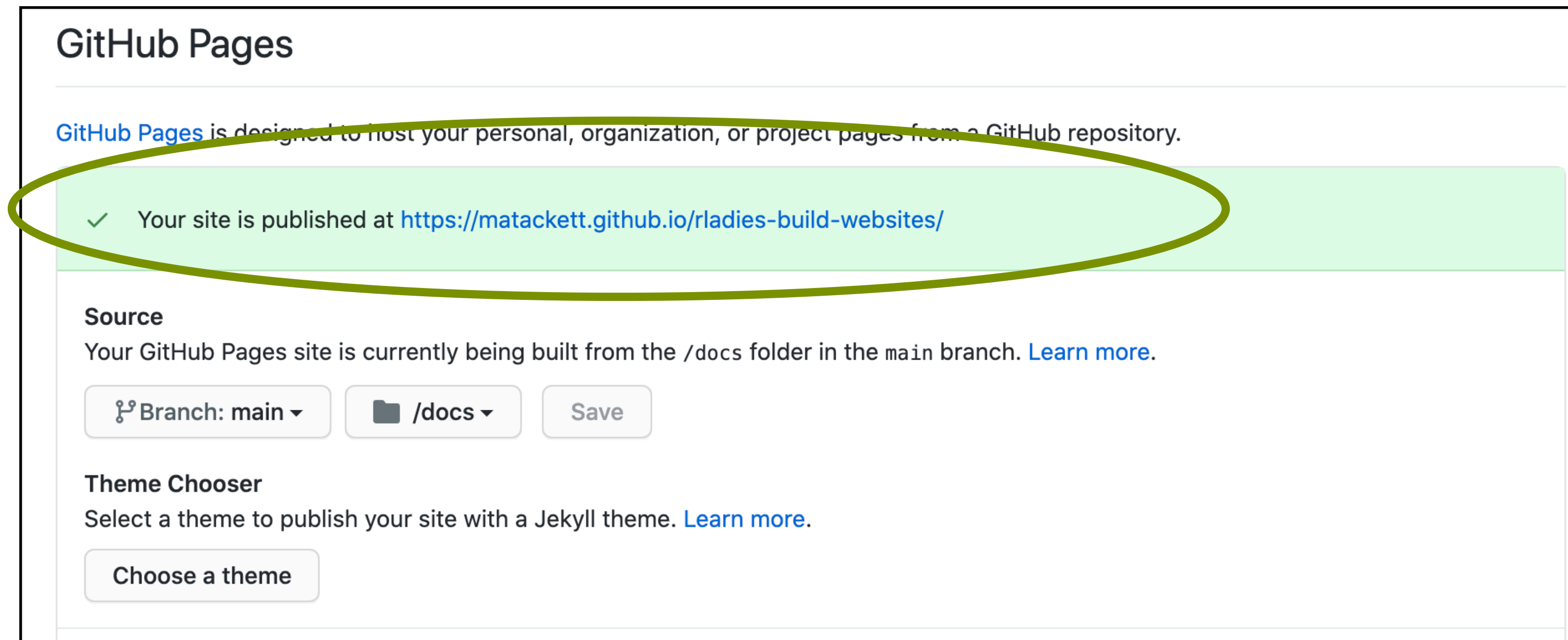
**Theme Chooser**  
Select a theme to publish your site with a Jekyll theme. [Learn more.](#)

Choose a theme

Choose the branch  
+ folder that has  
site contents

# Let's deploy the site!

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**Source**  
Your GitHub Pages site is currently being built from the /docs folder in the main branch. [Learn more.](#)

🔗 Branch: main ▾   📁 /docs ▾   Save

**Theme Chooser**  
Select a theme to publish your site with a Jekyll theme. [Learn more.](#)

Choose a theme

URL is made from  
your GitHub  
username +  
repo name



# The finished site!

[matackett.github.io/radies-build-websites](https://matackett.github.io/radies-build-websites)

Motivation

Distill +  
Blogdown

Making a  
website

Tips

# Tips

- ✓ Start with a template + websites you love!
  - Include these in acknowledgements on your website and/or GitHub repo for the site
- ✓ Make small changes and preview the site often!
- ✓ Keep notes + a list of useful resources

# Tips

✓ Use the README of your GitHub repo for documentation

- Colors + templates
- Hugo version (if using Blogdown)
- Acknowledgements
- Resources
- etc...

✓ Keep up with what's new

✓ [RStudio blog](#)

✓ [#rstats on Twitter](#)

# Resources used for this talk

- *Sharing on Short Notice* by Alison Hill and Desirée De Leon
- *M-E-F-O: postcards + distill* by Alison Hill
- *Distill for R Markdown* by JJ Allaire, Rich Iannone, Alison Hill, and Yihui Xie
- *Blogdown: Creating Websites with R Markdown* by Yihui Xie and Alison Hill

# Thank You!



maria.tackett@duke.edu



@MT\_statistics



[bit.ly/rladies-build-websites](https://bit.ly/rladies-build-websites)