Creating an Academic Website Using a Static Website Generator

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Computer Friday
February 18, 2022

What To Expect Today

- This presentation aims to give you 2 perspectives:
  1. *Objective:* A "manual" to setup an own website
  2. *Subjective:* What to aim for
- Aim: Show how easy and fast it is (30-60min) & offer a starting point $\rightarrow$ No programming skills required!
- Walkthrough based on MacOS
- I am not an expert and I just learned by doing it
- If you object with steps/statements, feel free to speak up!
- All knowledge in this presentation is borrowed knowledge: Google, StackOverflow is your best friend

Note! First time presenting this: Bare with me :)

Why Should You Care? Peace of Mind and Signaling

- You are your own master (or: convenience comes at a price)
- Business cards are so 2000 (evidence)
- Website is often the first point of contact
- Upside is large and cost to get started relatively low (at least in PhD time units)
- Most people can tell what looks "good", especially when there is heterogeneity
- Junior vs. senior: You must have made it to afford to not care, but you probably should still care a bit

Let's Get Into It: What is a Static Website?

- Not a dynamic website....D'oh!
- *Dynamic websites:* A web framework installed on a server generates the page a user sees. A user makes a request, the server queries a database, pulls out the information users want to see, combines that data into an HTML page, then sends that page to a user.
- *Static websites:* Pages are pre-rendered (no pulling from a database), so the server doesn't do any of the work of building the page. It only handles sending the appropriate page to the user.
- Static websites cut out page generation: All information displayed on each webpage is already contained in an HTML file for that webpage

- The HTML files are generated by a static website generator such as Jekyll, Hugo etc.

Let's Get Into It: WTF is Jekyll/Hugo?

- Bob the Builder for static websites
- Jekyll/Hugo build static HTML site files which you then host and can access as your website
- Jekyll/Hugo generate static HTML pages by combining content written in markdown with HTML templates which wrap and style the content
- Jekyll/Hugo output an HTML file for display on the web ($\rightarrow$ your website)
- There is no such thing as a Jekyll/Hugo website, only a static website generated/built by Jekyll/Hugo

Jekyll vs. Hugo

- Based on different languages (Ruby vs. Go)
- Rely on different dependencies
- More templates available for Jekyll ($\sim$ 1200 vs. 400)
- Hugo is faster (but unlikely that it will matter)

Conclusion: Does not matter too much. If you understood one way, you can figure out the other!

$\rightarrow$ If you have a theme that you like, decide based on that!

Why a Static Website

Pros

- Low maintenance (setup and changes)
- Security
- Speed
- Preservation & Versioning
- Learning
- Customization possible
- Free hosting on GitHub Pages
- Optimized for different browser and mobile

Cons

- Initial fixed cost
- Some nerves

Example 1: DevResume Theme

SIMON DOE

Senior Software Engineer

0123 4567 890
simon.doe@yourwebsite.com
www.yourwebsite.com
New York

Summarise your career here. Donec quam felis, ultricies nec, pellentesque eu. Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem. Maecenas nec odio et ante tincidunt tempus. Donec vitae sapien ut libero venenatis faucibus. Nullam quis ante. Etiam sit amet orci eget eros faucibus tincidunt. Duis leo. Sed fringilla mauris sit amet nibh.

WORK EXPERIENCE

Senior Software Engineer — Google | 2019 - Present

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- **Second** Aenean commodo ligula eget dolor.
- **Third** Etiam ultricies nisi vel augue.

Lead Software Developer — Apple | 2016 - 2019

Role description goes here ipsum dolor sit amet, consectetuer adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem. Donec pede justo, fringilla vel.

- **First** Lorem ipsum dolor sit amet, consectetuer.
- **Second** Aenean commodo ligula eget dolor.

Senior Software Developer — Dropbox | 2014 - 2016

Role description goes here ipsum dolor sit amet, consectetuer adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.

Senior Developer — Uber | 2012 - 2014

SKILLS

Technical

JavaScript/Angular/React/Vue

Python/Ruby/PHP

Node.js/ASP.NET

PostgreSQL/MySQL

Object-oriented design

Design and implement database structures

Lead and deliver complex software systems

Professional

Effective communication

Team player

Strong problem solver

Good time management

EDUCATION

MSc in Computer Science

Example 2: Avicenna Theme

Hadi Sinaee

Ph.D., Stanford University
email@cs.stanford.edu
CEO & Co-Founder, The Coolest Startup In the World
email@mycoolstartup.ai

cv

Donec sollicitudin, ante pulvinar tincidunt luctus, dolor mauris lobortis ex, id tincidunt metus risus nec ex. Curabitur magna mauris, facilisis vitae porttitor vitae, tincidunt sed mi. In at dui lectus. Integer ante arcu, vestibulum fermentum ante eu, maximus maximus quam. Curabitur placerat cursus posuere. Phasellus dui lorem, varius a augue non, eleifend accumsan mauris. Aenean varius posuere feugiat. In hac habitasse platea dictumst. Aenean quis ex quis nisl consequat fermentum in vitae nunc. Proin consectetur ac nulla in tempus. Maecenas enim nisi, pulvinar sit amet fermentum eget, ultrices vitae enim. Etiam vel sollicitudin felis.

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Interests

- Data Intensive Systems
- Distributed Systems
- Data Streaming Platforms
- Large-Scale Data Processing Platforms

Academia

Stanford University 2021 - present
Ph.D. Data Systems

Sharif University of Technology 2013 - 2016
M.Sc. Software Engineering
graduated without first class honor, supervised by Prof. Very Cool!

University of Kashan 2009 - 2013
B.Sc. Software Engineering , Minor: Statistics
graduated with first class honor, supervised by Prof. Cool!

Recent Publications

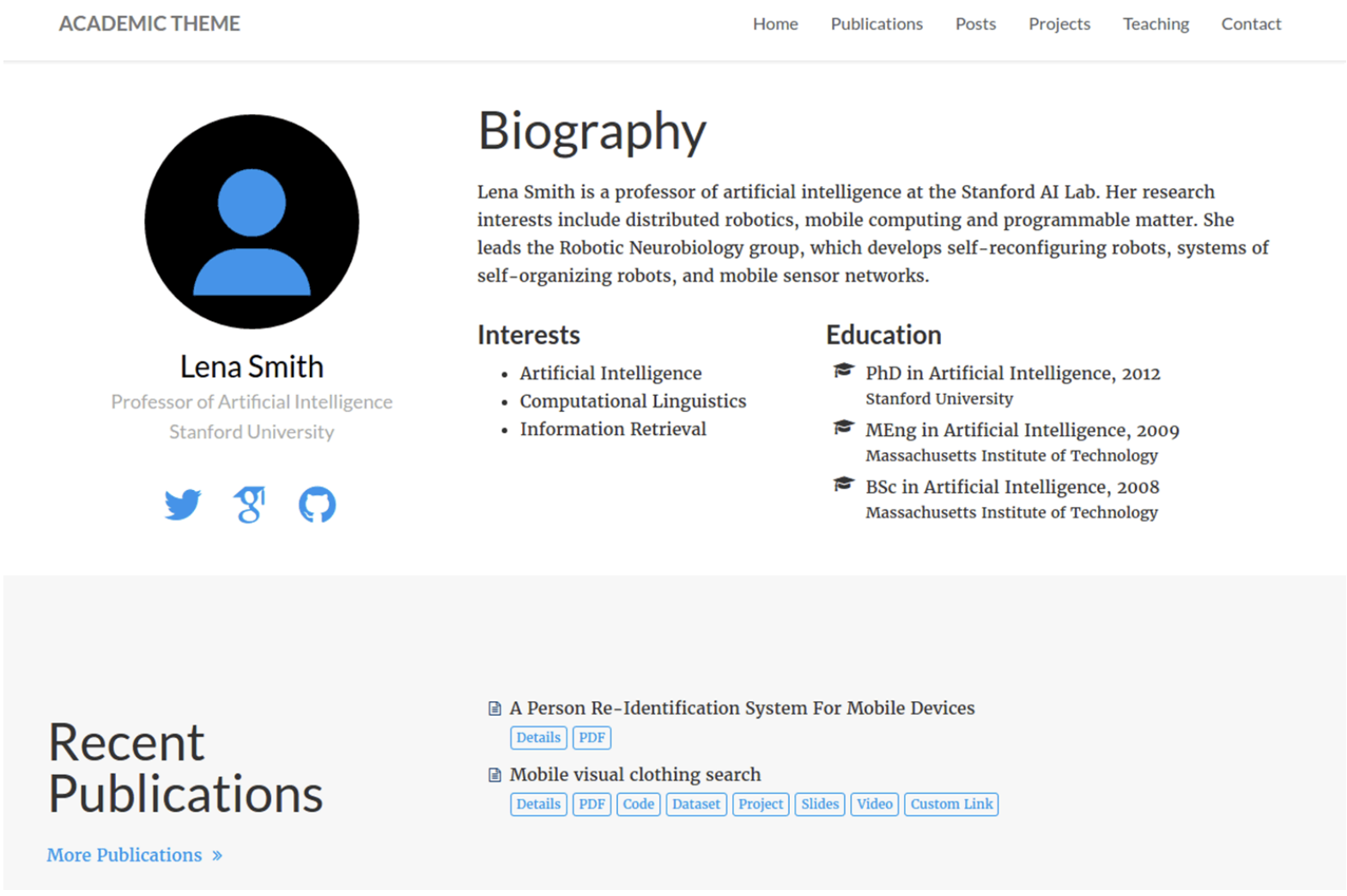
Custom Subtitle: see my google scholar for the latest list

Your Paper Name Goes Here, 2018, Journal of Machine Learning
Your Full Name, Another Researcher
pdf code slides video

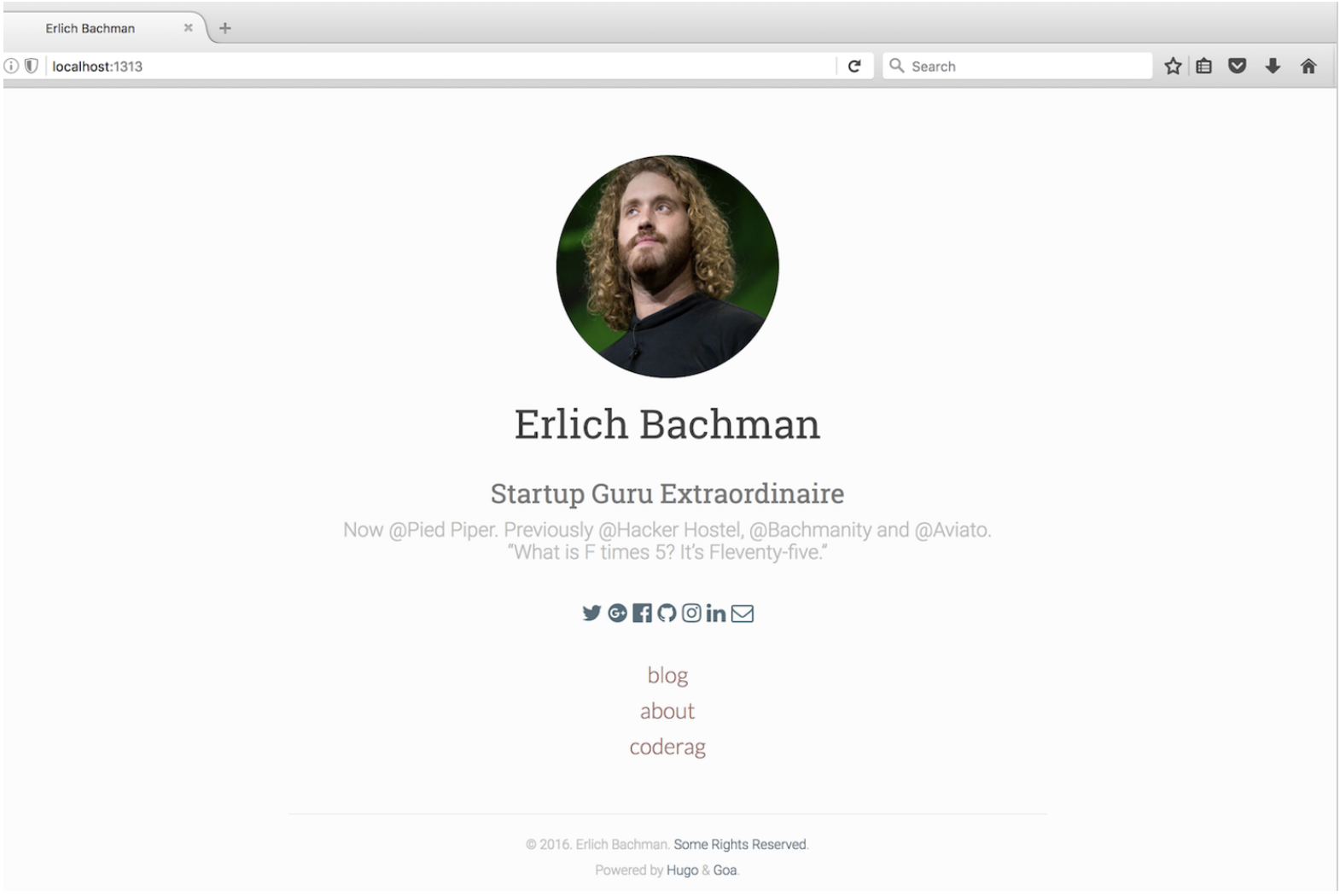
Your Paper Name Goes Here, 2018, Journal of Machine Learning
Your Full Name, Another Researcher
pdf code slides video

Your Paper Name Goes Here, 2016, Journal of Machine Learning

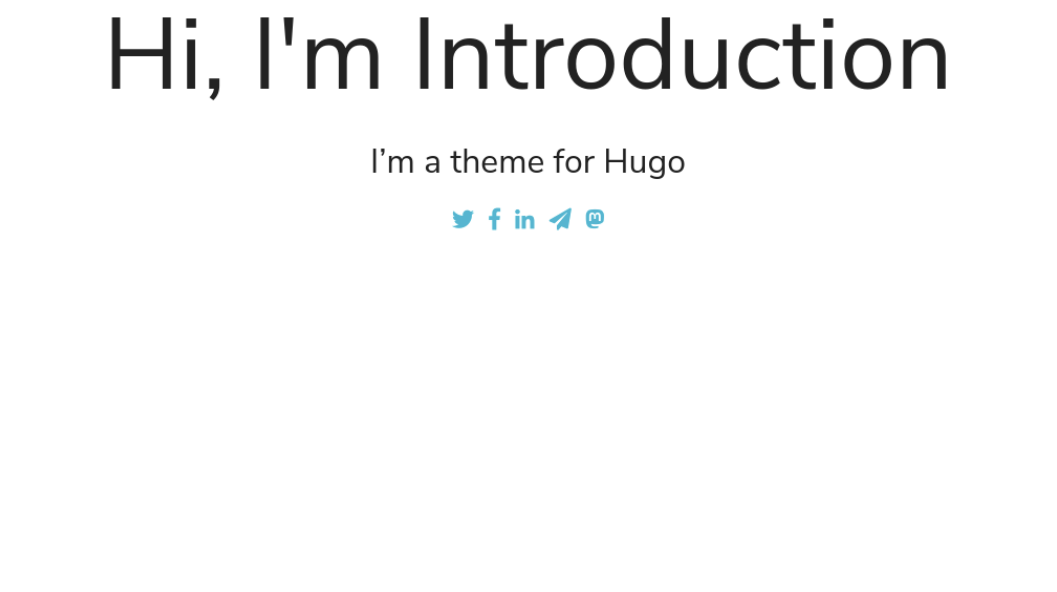
Example 3: Academic Theme



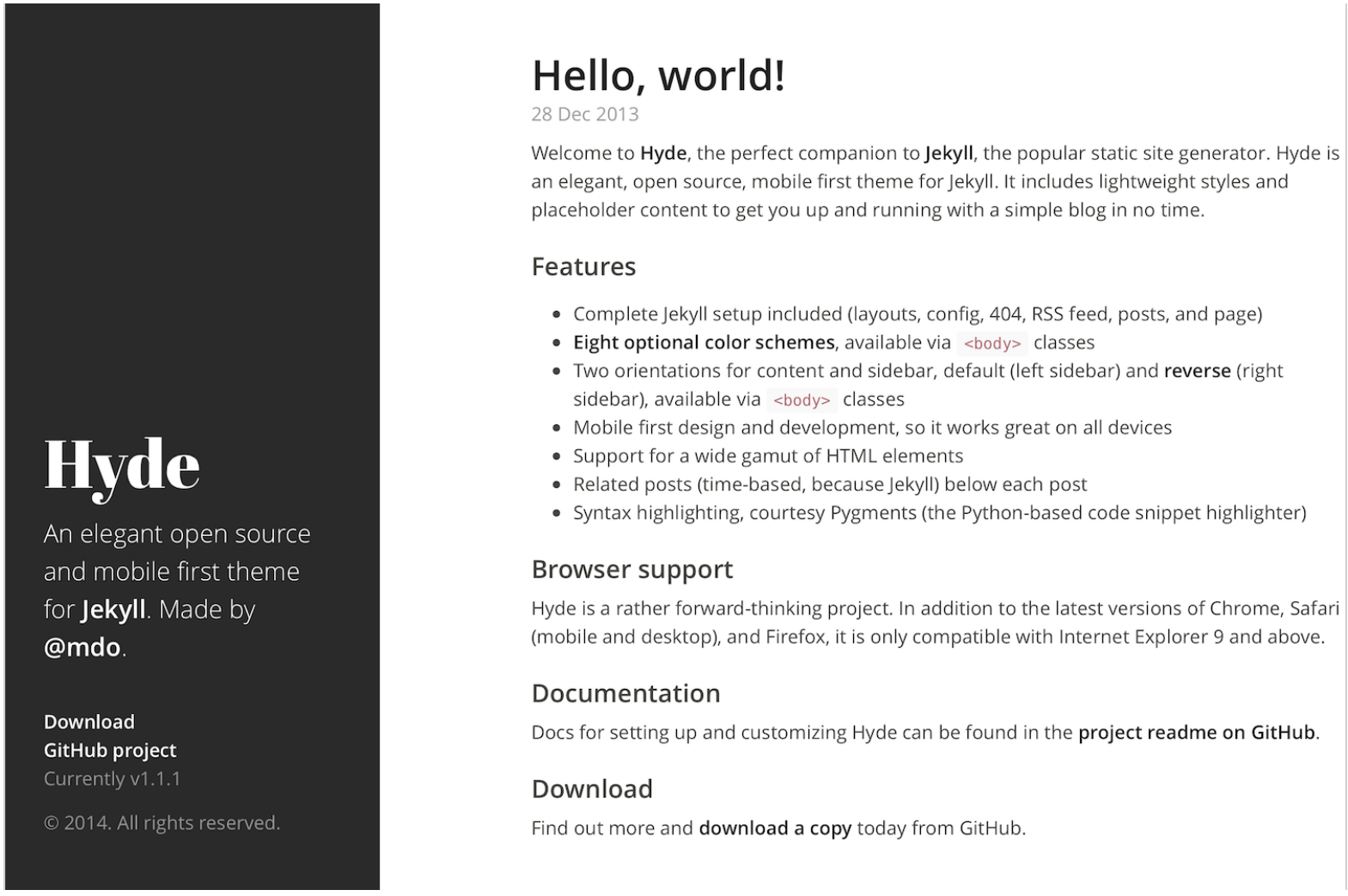
Example 4: Goa Theme



Example 5: Introduction Theme



Example 6: Hyde Theme



Tools That We Will Use

- GitHub user account + repository
- Command line
- Text editor
- Markdown

- Alternative: Use *blogdown* package in R

markdown

Create Site Locally

1. Download and install Hugo and Git

```
brew install hugo
hugo version
(xcode-select --install)
git --version
```

2. Specify folder of your website and build site locally

```
cd /Users/marlisschneider/Desktop
hugo new site mysite
```

3. Choose a theme (alternatively: download theme repository and replace themes folder)

```
cd mysite
cd themes
git clone <url-theme-of-your-choice>
```

Recap: What Have We Just Done?

Install what we need (step 1) + run the command `hugo` which will generate the following folder structure (step 2)

- archetypes
- `config.toml`
- content
- data
- layouts
- static
- themes

This is not a running website yet: We need a theme (step 3)
$\rightarrow$ Content in "themes" folder

Recap: What Have We Just Done?

Folder structure after site generation with `hugo` **and** adding a theme:

```
.
├── archetypes
├── config.toml  This can also be a folder
├── content
├── data
├── layouts
├── static
└── themes
```

Folder Structure: What Do I Need to Know?

- **archetypes:** Archetypes serve as templates for content files
- **config:** Hugo site configuration
- **content:** All content of your website: Each top-level folder/file in Hugo is considered a content section (e.g. `content/blog`, `content/articles`, and `content/tutorials`)
- **data:** Store configuration files that can be used by Hugo when generating your website
- **layouts:** Stores templates in the form of `.html` files that specify your content will be rendered into a static website
- **static:** Stores all the static content: Images, .pdfs, CSS etc. (copied as-is when rendered)
- **themes:** Theme of your side

Most relevant: `config.toml`, content-folder, static-folder

Customization

- Adapt theme: Edit `config.toml`
  $\rightarrow$ Pointer to Github Pages URL
- Create your first blog post

```
cd mysite
hugo new about.md
```

- Build site locally: Look at page
  `http://localhost:1313/`

```
cd mysite
hugo server
```

- `hugo server` generates a public folder (*your website*)

Folder Structure

Folder structure after site generation with `hugo` **and** adding a theme **and** running `hugo server`:

- archetypes
- `config.toml` or **config**-folder
- content
- data
- layouts
- static
- **themes**
- **public**

Take It Up a Notch

Customization is the most theme-dependent and individual step. This presentation only offer a glimpse what is possible (sorry)!

- *If you have time/interest:* Read the documentation which is often well-done, especially for established themes, and go from there by trial-and-error

  $\rightarrow$ You cannot really mess up!

- *If you have no time/no interest:* Pay for some help from Fiverr/Upwork, especially if you have more profound/specific ideas about the design

Deploy to Github 1/3

- GitHub Pages allows you to host static websites on GitHub
- Note! Initialize as **public** repository **without** a READ.me file and select **master** branch as your website source under settings
- For each project (= repository) you have on GitHub, the corresponding GitHub pages website will be available under `https://YOUR-GITHUB-USERNAME.github.com/YOUR-PROJECT-NAME`
- For the special project name `YOUR-GITHUB-USERNAME.github.io`, the website will be served directly under `https://YOUR-GITHUB-USERNAME.github.io`, i.e. without the project name suffix

Deploy to Github 2/3

- Render website in public folder: This step will create a `public` folder

```
cd mysite #(note: here should be 'cd'
+ the full path to mysite)
hugo
```

- Initialize `public` folder as Git repository (SSH key required!)

```
cd public
git init
git add .
git remote add origin https://github.com/
username/username.github.io.git
```

Deploy to Github 3/3

- Go to public folder and commit (alternative: add manually)

```
git add --all
git commit -m ‘‘first commit’’
git push -u origin master
```

- Check the status of your website under “Settings/Pages” (link in box)

How to Setup a Custom Domain for Github Pages

- Prerequisite: Purchase a domain on Google Domain etc.

- Let Github pages know your custom domain
- Change DNS settings
- Let your www sub-domain point to your Github page

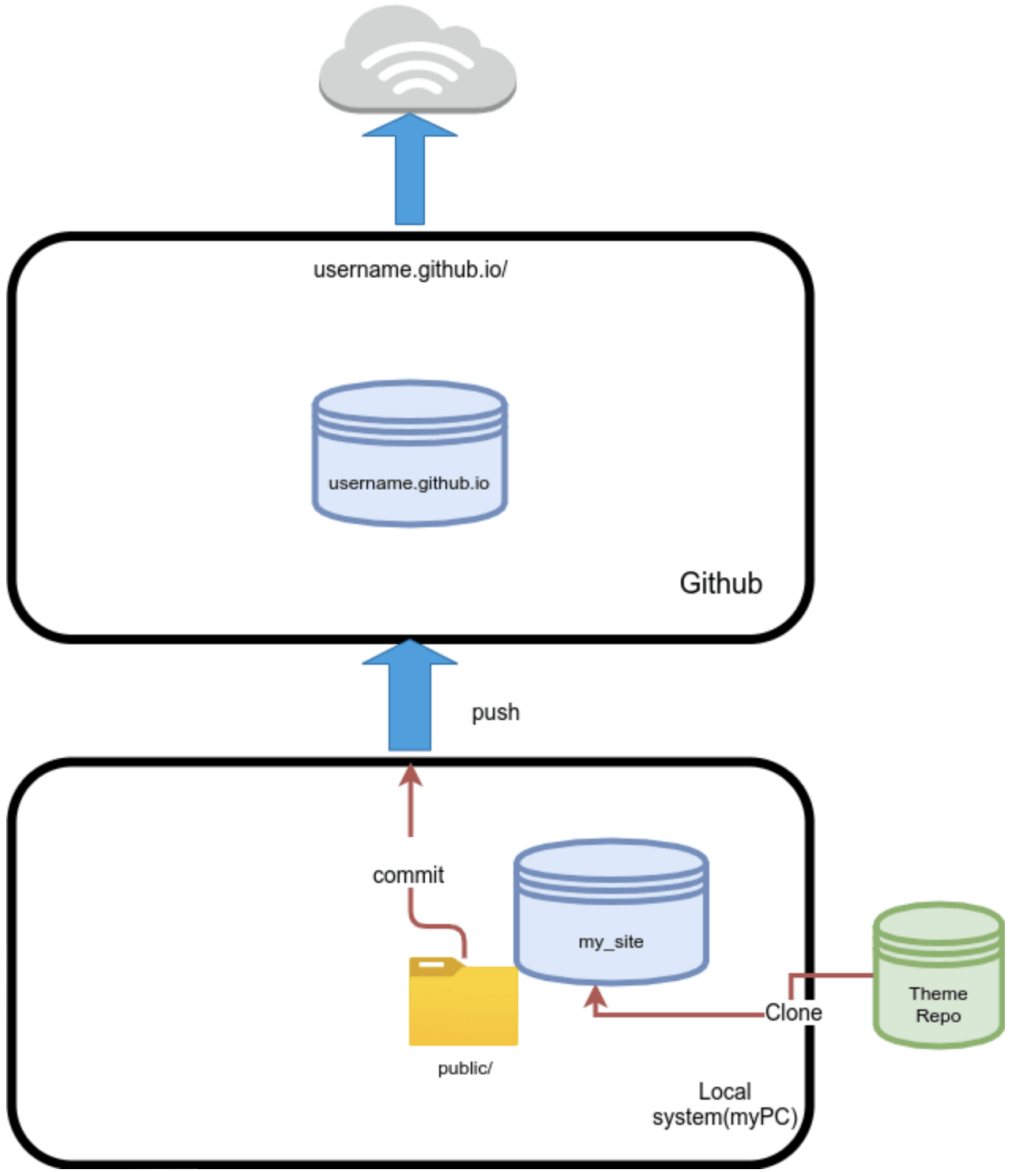
- Optional: Enable HTTPS for your Github page
- Note! Also change domain in `config.toml`

screenshots

Making Changes to Your Website

- Once initial setup you are set and done
- Only need to deal with it again when you make changes (posts, design, update CV etc.)
- How it works? $\rightarrow$ Rinse and repeat basically
  1. Make changes to local machine
  2. Delete `public` folder
  3. Re-generate site/files with `hugo`
  4. Re-deploy `public` to Github Pages
- Nice to have: Automate this (see resources slide)
  1. Create a second GitHub repository and a Github action
  2. Push only local changes to the second GitHub repository (exclude public folder)
  3. GitHub action pulls the changes to your site repository and re-generates the site

Overview



Source: https://dev.to/nuhyurduseven/creating-static-web-sites-using-hugo-4f1k

Some Advice

- Do not host paper on Dropbox, Google Drive etc. as these are often blocked by government agencies etc.
- Keep the content up to date!
- Make visitors stick! Provide a public good on your website: Example
- Give it some personality (picture etc.)
- Good practice to leave the reference to the developer of the theme on your website (or point somewhere to it)

example

All Nice and Good But I Want Something Else

If skills: Code it up yourself!

If not: Pick your fighter...

- *Free:* Google Sites
  $\rightarrow$ Tutorial by Kevin H. Wilson
- *Free:* Wordpress
- *Free:* Notion
- *Some money:* wix.com, squarespace.com
  $\rightarrow$ Portfolio templates
- *More money:* OpenScholar

Resources

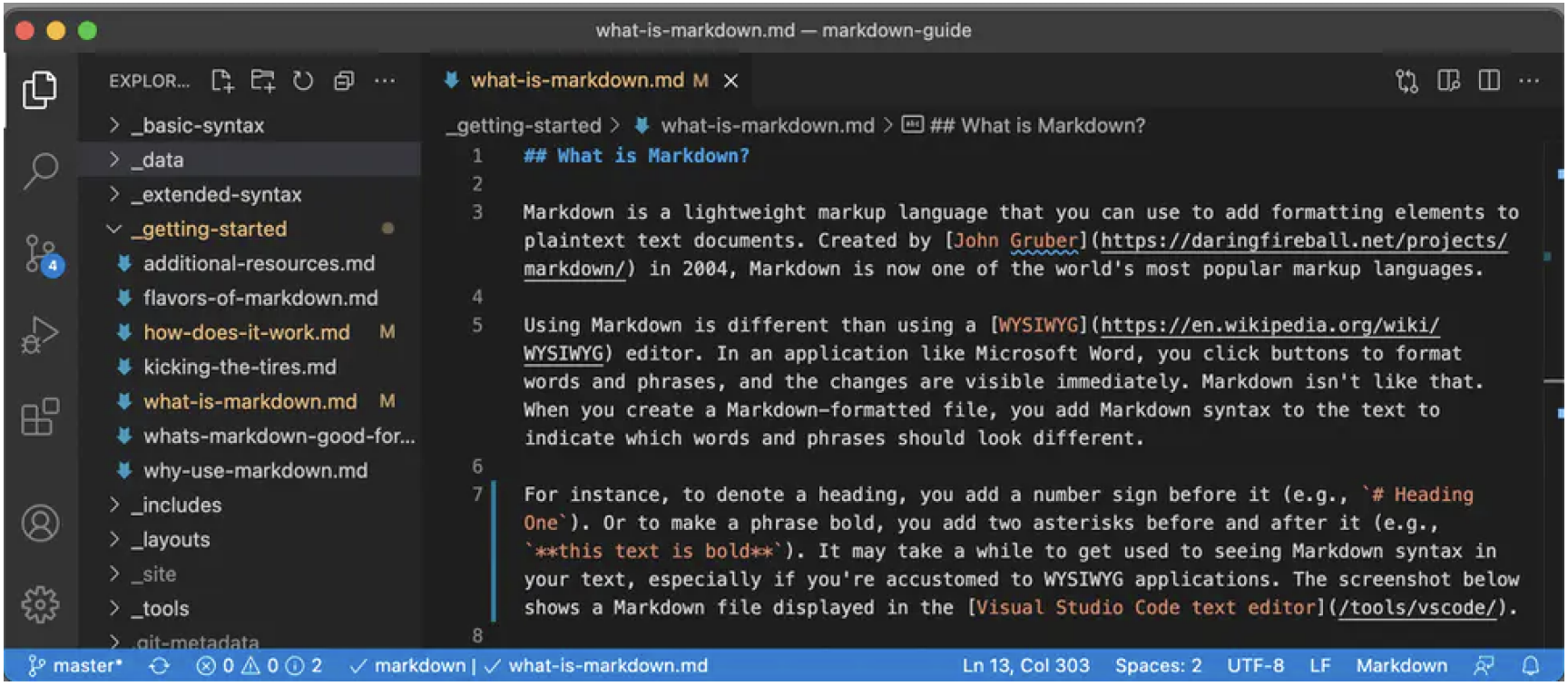
- Markdown Guide
- Hugo Documentation
- Documentation of Themes: Example Academic Theme
- GitHub Docs Connect with SSH
- How to Setup a Google Domain for Github Pages
- r/Hugo: A Fast & Modern Static Website Engine
- Tutorials on Youtube: Example 1, Example 2
- Automation using GitHub Actions (see bottom)
- blogdown: Creating Websites with R Markdown
- For Google Sites: Tutorial and twitter thread by Kevin H. Wilson

What is Markdown?

- Language that you can use to add formatting elements to plaintext text documents
- You add Markdown syntax to the text to indicate which words should look different
- The text is stored in a plaintext file that has an *.md* or *.markdown* extension
- Why markdown? Universal, portable, platform independent, future-proof
- Relevance: Markdown-formatted text can be converted to HTML so it can be displayed in web browsers

back

What is Markdown?



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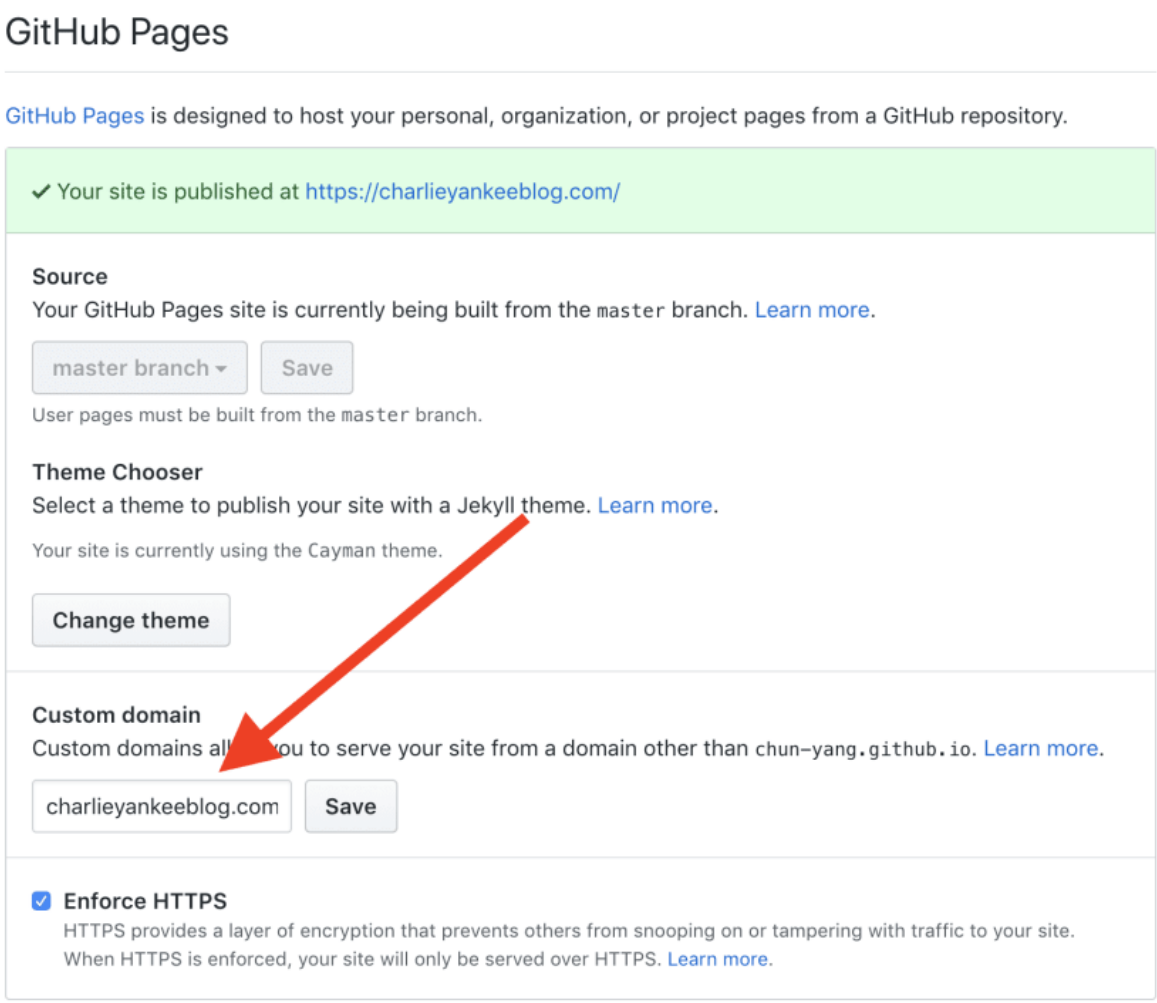
URL Custom Domain Settings



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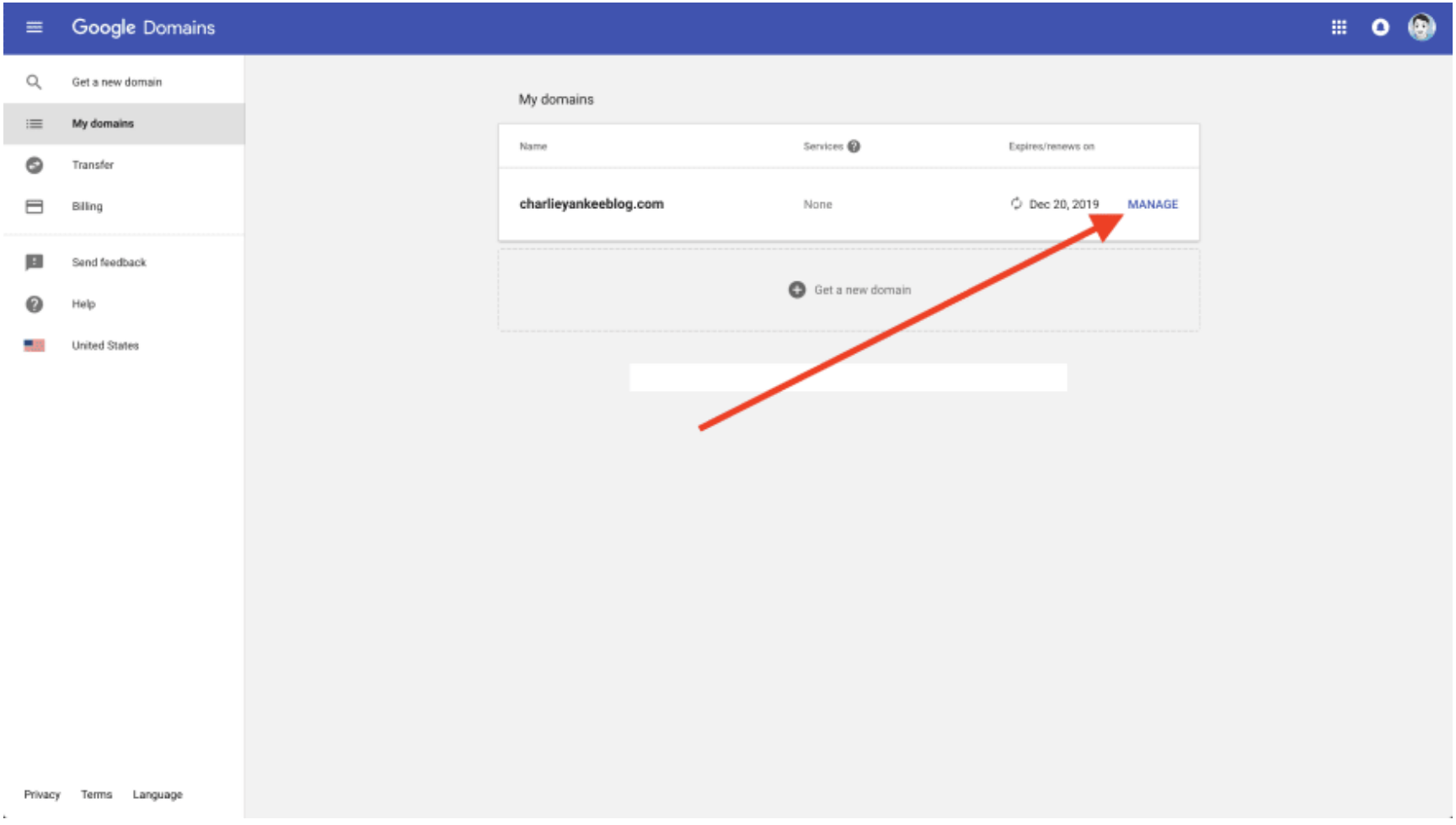

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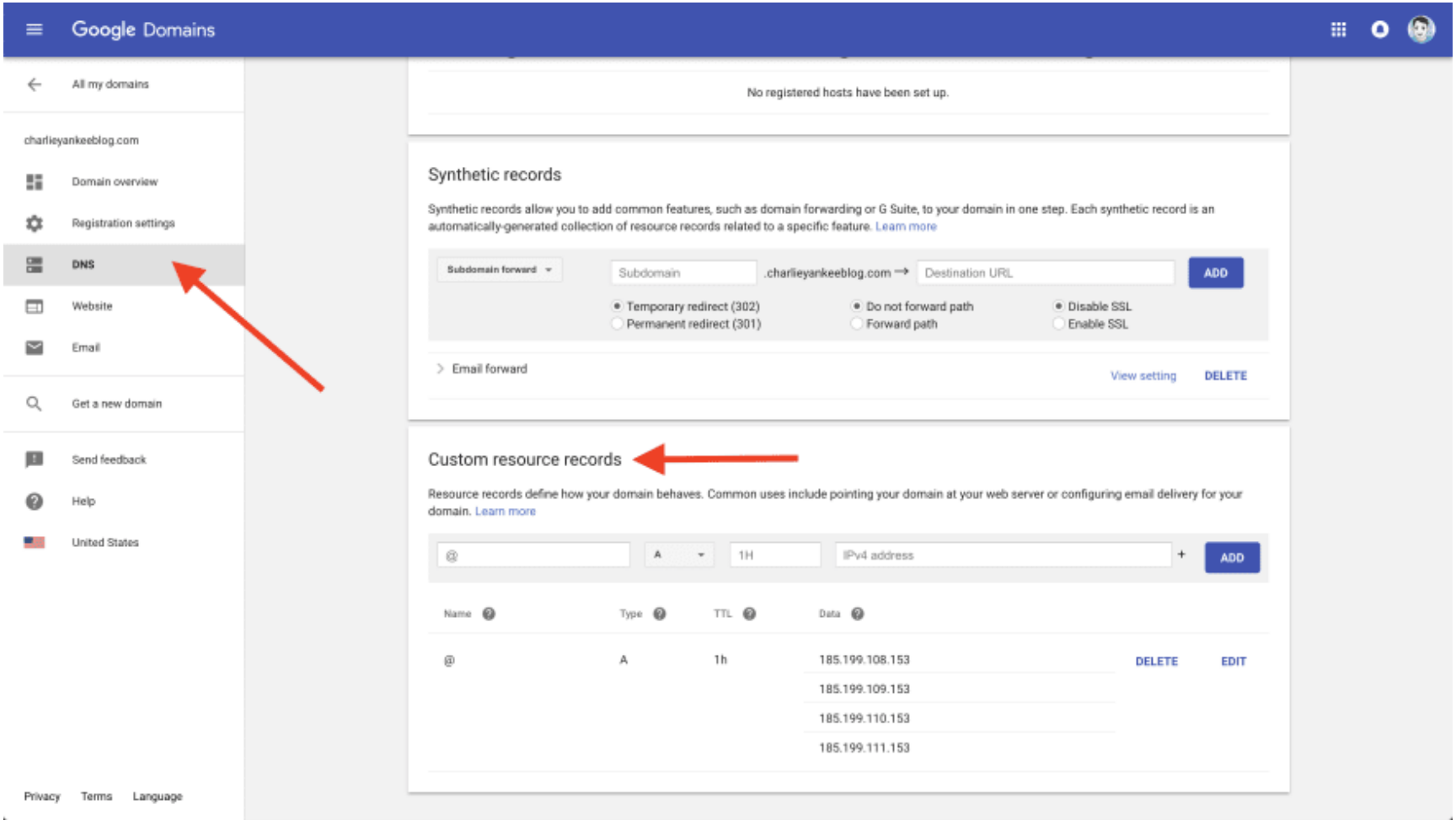

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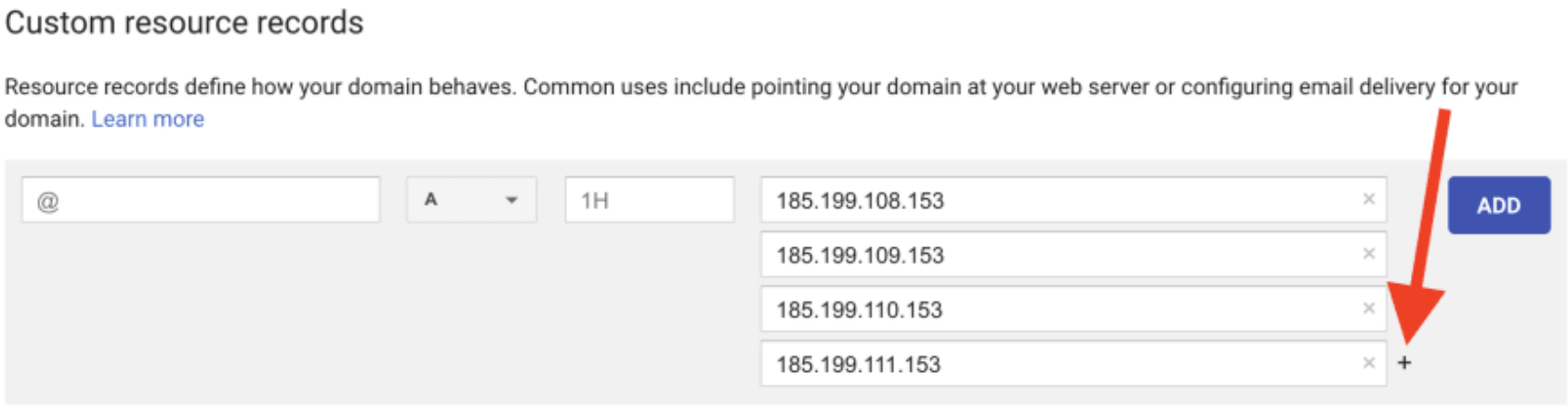

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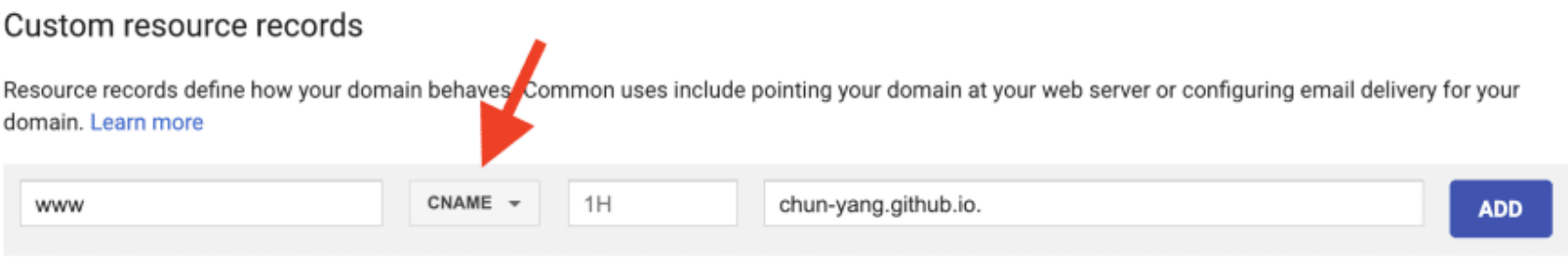

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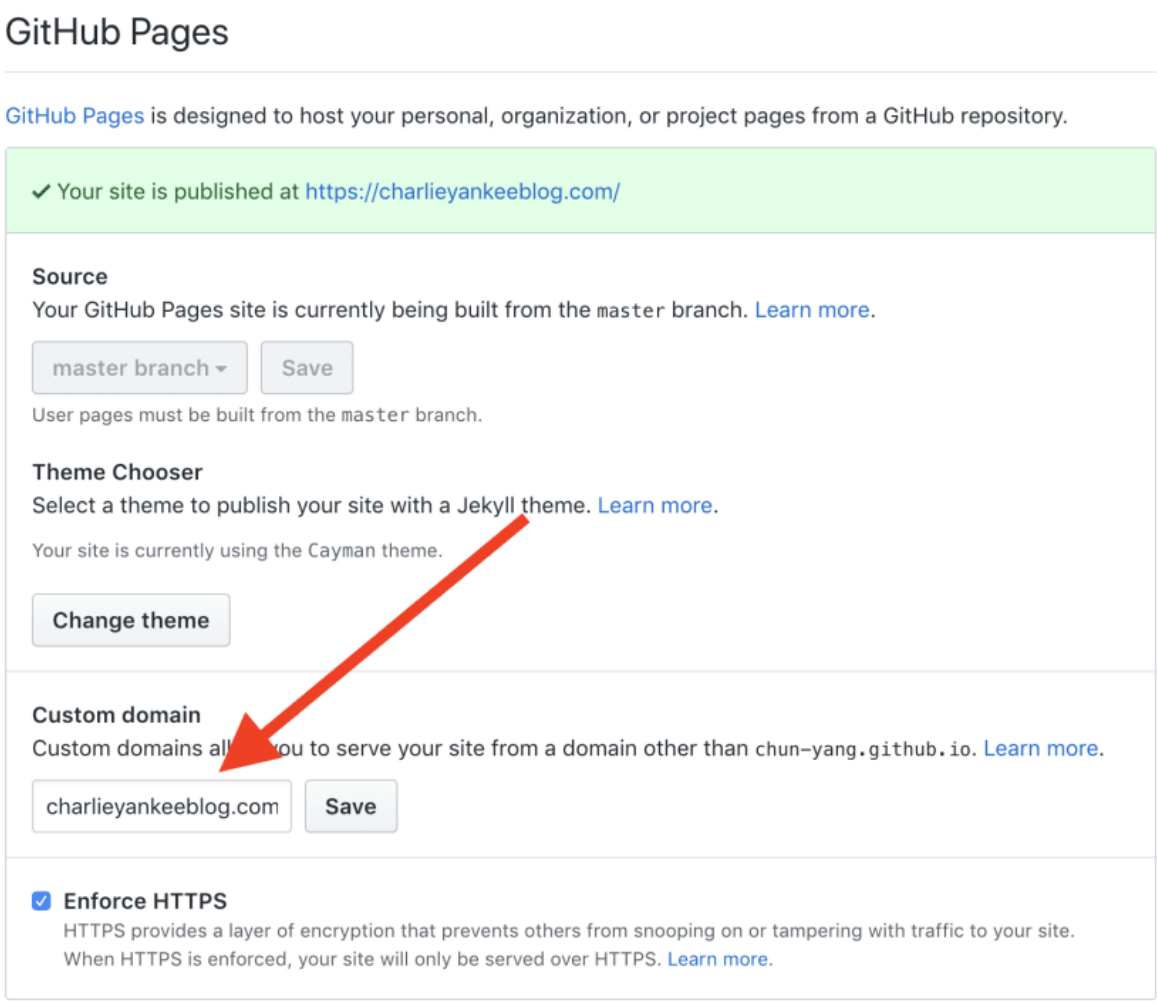


back

Do Not Host Paper on Google Drive or Dropbox

Matthew Yglesias
@mattyglesias

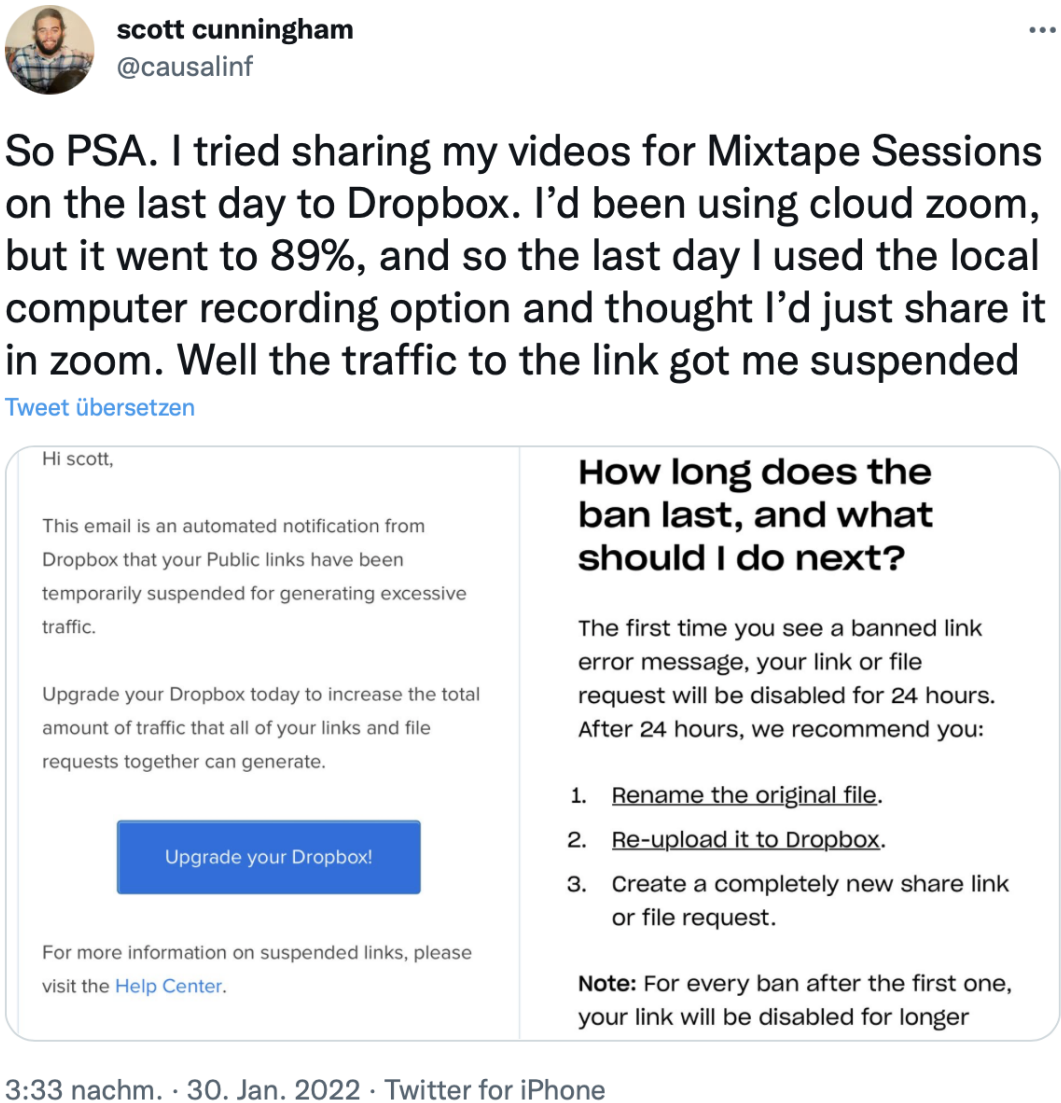
It's not a great idea for scholars to post their research as Google Drive or Dropbox links (many government or corporate users will be blocked, etc) and I wish universities would use some of their eleven million administrative slots to help equip folks with best practices here.

Tweet übersetzen

12:55 nachm. · 29. Nov. 2021 · Twitter for iPhone

back

Do Not Host Paper on Google Drive or Dropbox



scott cunningham
@causalinf

So PSA. I tried sharing my videos for Mixtape Sessions on the last day to Dropbox. I'd been using cloud zoom, but it went to 89%, and so the last day I used the local computer recording option and thought I'd just share it in zoom. Well the traffic to the link got me suspended

Tweet übersetzen

Hi scott,

This email is an automated notification from Dropbox that your Public links have been temporarily suspended for generating excessive traffic.

Upgrade your Dropbox today to increase the total amount of traffic that all of your links and file requests together can generate.

Upgrade your Dropbox!

For more information on suspended links, please visit the Help Center.

How long does the ban last, and what should I do next?

The first time you see a banned link error message, your link or file request will be disabled for 24 hours. After 24 hours, we recommend you:

1. Rename the original file.
2. Re-upload it to Dropbox.
3. Create a completely new share link or file request.

Note: For every ban after the first one, your link will be disabled for longer

3:33 nachm. · 30. Jan. 2022 · Twitter for iPhone

back