

Portfolio Site - Engineering Journal (Article):

Building a personal website helped me solidify my frontend development skills and gain experience with deployment.

<https://www.digitalocean.com/community/tutorials/initial-server-setup-with-ubuntu-18-04>

**Documenting the process of setting up my BLOG site. I wanted to make more medium posts, but I wanted them to be on MY site. I needed to start a dev site anyways, so I looked for hosts.**

**Step: Setting up my website:**

**Google search:** <https://www.afternerd.com/blog/start-programming-blog/>

- Could've used bluehost
- Wanted to use DigitalOcean to customize it more
- Problems with AWS charging me too much (digital oceans wouldn't charge me for uploading files 30 times)
- Skip using image, set up wordpress the hard way
- Need to set up a site in /blog route.
- Didn't know NEARLY enough about setting up subdirectories and routes

Buy my domain on AWS Route53

Research places to host a website

Create DigitalOcean Droplet Ubuntu (what specs does it have?)

**Create DigitalOcean Droplet:**

Learn how to SSH into it:

<https://www.digitalocean.com/community/tutorials/initial-server-setup-with-ubuntu-18-04>

Add user

Set up SSH Key:

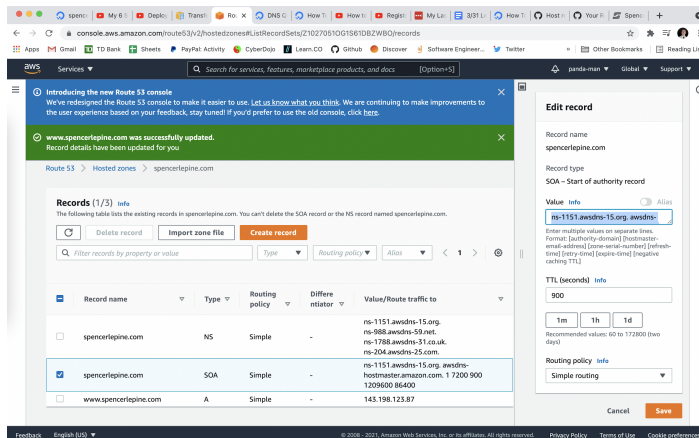
<https://www.digitalocean.com/community/tutorials/how-to-set-up-ssh-keys-on-ubuntu-1804>

Convert to SSH from password

Connect Route53 to the droplet:

Connect Domain:

Add my domain address: 143.198.123.87 to my Route53 Hosted Zone values



Visit "spencerlepine.com" to access apache server now

Install apache

Install Apache:

<https://www.digitalocean.com/community/tutorials/how-to-install-the-apache-web-server-on-ubuntu-20-04>

Set up ufw firewall, Open port for Apache

Learn apache commands:

```
sudo systemctl status apache2
Sudo systemctl restart apache2
Sudo systemctl stop apache2
Sudo systemctl start apache2
a2disssite 000-default.conf
a2ensite spencerlepine.com.conf
```

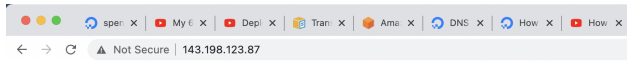
Learn apache setup:

```
/var/www/spencerlepine.com
/etc/apache2/apache2.conf
/etc/apache2/sites-available/spencerlepine.com.conf
/etc/apache2/sites-enabled/spencerlepine.com.conf
```

Configure apache.conf to LINK to /var/www/spencerlepine.com

Set up ssl certificates

Put some placeholder files to display my name - Create index.html test



Success! The spencerlepine.com virtual host is working!



Download DEV Site files

Clone github repo

Cd into folder

'cp -r \* ..' copy into parent folder

Cd to parent

'Rm -d -r github\_folder\_name'

Commands: mv - cp -r -d

Host a REACT app instead:

**Host React App:**

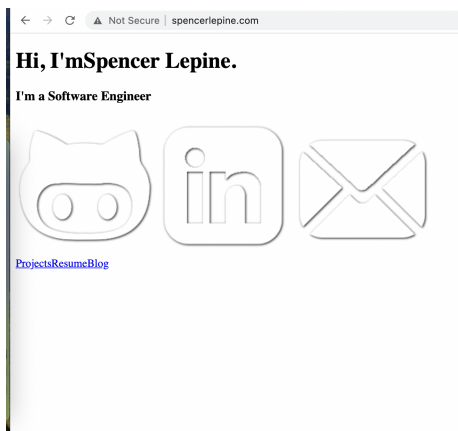
<https://codeburst.io/deploying-and-hosting-a-react-app-on-an-apache-server-b7121dffb07a>

<https://gist.github.com/ywwwtseng/63c36ccb58a25a09f7096bbb602ac1de>

Convert HTML/CSS/JAVASCRIPT site to React app

Upload react build to APACHE Server

Add .htaccess for '404 error not found' fallback



Milestone #1: Visit the domain and view a template web page.

**Next Step: set up blog (can put a react build on there, but I wanted a blog)**

Research how to set up a blog

Find article about LAMP stack

Install MySQL on ubuntu machine:

Install MySQL:

<https://www.digitalocean.com/community/tutorials/how-to-install-mysql-on-ubuntu-18-04>

Set up mySql users

Install php on ubuntu machine:

Install PHP:

<https://www.digitalocean.com/community/tutorials/how-to-install-linux-apache-mysql-php-lamp-stack-ubuntu-18-04>

Set up TLS/SSL:

<https://www.digitalocean.com/community/tutorials/how-to-secure-apache-with-let-s-encrypt-on-ubuntu-18-04>

CREATE "A" record in DigitalOcean for "spencerlepine.com" (not just [www.spencerlepine.com](http://www.spencerlepine.com)):

<https://www.digitalocean.com/docs/networking/dns/how-to/manage-records/#a-records>

Wait 3 hours for limit to reset:

Login to SSH

Run `sudo certbot --apache -d spencerlepine.com -d www.spencerlepine.com`

Add "A" record for "spencerlepine.com" (not www) on Amazon to route to 143.987....

Install wordpress from article:

Move on to this article:

<https://www.digitalocean.com/community/tutorials/how-to-install-wordpress-with-lamp-on-ubuntu-18-04>

Creating blog MySQL user error:

<https://stackoverflow.com/questions/36631676/error-in-your-sql-syntax-check-the-manual-that-corresponds-to-your-mysql-server>

Installed wordpress in **subdomain** (but wanted it to be IN main site)

Install wordpress in subdirectory instead

Add Servername to apache config file:

<https://unix.stackexchange.com/questions/155150/where-in-apache-2-do-you-set-the-servername-directive-globally>

Problems with php not routing to the subdirectory

- Type `spencerlepine.com/blog/wp-admin`
- Directs user to `spencerlepine.com/wp-login`

Only option is to install wordpress in root directory

Research THEMES to use, don't want to buy any themes

Is there anything else besides Wordpress?

Milestone #2: Figure out how to set up Wordpress blog

**Next Step: Find something other than wordpress. (Something that I can implement with react)**

Research Headless CMS vs traditional:

<https://www.smashingmagazine.com/2020/04/web-app-headless-cms-react/>

Details about JAM Stack:

Javascript, API, and Markup is a type of CMS system that is external: separate from the site.

With wordpress, it was a hefty build and install set up just for a number of posts. Pretty over the top.

It was difficult to connect external CMS's and route the pages correctly.

I settled with a Gatsby system that just rendered mdx files and display local blog post files.

With GraphQL, I can query the api to get any ELEMENT of a post, instead of the ENTIRE thing

Gatsby also had many plugins that I could add to the app.

I could build out the app with custom React JSX, which was the target feature.

Look into NetlifyCMS - don't want to transition from digital ocean

Find ghost cms

Try to set up Ghost CMS:

<https://github.com/krofax/E-Commerce-Store-with-GraphCMS-and-React>

<https://shakhorsmith.com/blog/how-to-make-a-blog-with-react-&-graphql/>

Scratch everything, install nginx:

Headless CMS with Ghost and nginx

Read this article:

<https://ghost.org/docs/install/ubuntu/>

Remove Apache: [Question Solution](#)

Remove Apache ufw rules: [Article](#)

Install nginx:

<https://www.digitalocean.com/community/tutorials/how-to-install-nginx-on-ubuntu-20-04>

Can't install nodeSource?: Follow this tutorial:

<https://www.howtoforge.com/tutorial/how-to-install-ghost-blog-on-ubuntu/>

Can't get ghost setup?

Set up Ghost in subdomain

Ran into SO MANY errors, Ghost CMS was not working

Try wordpress with nginx:

<https://www.digitalocean.com/community/tutorials/how-to-install-wordpress-with-lemp-on-ubuntu-18-04>

Scratch that, install apache again

Try ButterCMS

Build quick app to connect to ButterCMS Posts

Turns out butterCMS did not have good SEO, it would be difficult to implement this on my own

Find GraphCMS

Understand basics and figure out the Queries and Schema for my personal post

Connect starter blogs to MY account

Try to install GraphCMS using /blog as subdirectory to separate site

Research GatsbyJS (looking for React framework to build with)

Use starter blogs and try to connect to my GRAPHCMS

Not sure how to route blog posts to individual pages:

React GraphQL Blog:

<https://medium.com/@tsettle44/how-to-build-a-blog-with-gatsby-and-graphcms-2d013ee1c9d8>

Only able to use LOCAL files, stick with this

Use Gatsby templates and customize gatsby-config.js to properly query for files

Template 1: <https://github.com/smithmanny/Portfolio/>

Template 2: <https://github.com/Mikaelia>

Gatsby (React) + GraphQL to access local files

Put my own articles in

Milestone #3: Implement a BLOG with React framework under /blog subdirectory

### Next Step: set up new Front-end on ubuntu server

Research Netlify, don't want to pay anything again

Download gatsby project on server

<https://www.gatsbyjs.com/docs/deploying-to-digitalocean-droplet/>

Try to BUILD gatsby app on ubuntu

Trying to BUILD gatsby app on ubuntu:

Update gatsby-cli and nodejs

Keep trying to install packages, wait a long time

Remove node\_modules, .cache, public, package-lock.json

Sharp library was giving me lots of errors

Run npm i --force

Running npm update --force

npm rebuild --verbose sharp

Manifest logo not square

Reinstall plugin: Sudo npm install gatsby-plugin-manifest

Update gatsby-config.js for gatsby-plugin-manifest

Look on Stackoverflow:

<https://stackoverflow.com/questions/41524903/why-is-npm-install-really-slow>

Not enough RAM to build images, build app or install packages

Solution: BUILD on local machine, send public folder to ubuntu server

Realize I could just BUILD gatsby app and store those 'static' files on the web server

Build app on my local machine

Push to github repo

Clone 'public' build files from gatsby build onto ubuntu

App not routing correctly?: Set /var/www/spencerlepine.com/public in spencerlepine.com-le-ssl.conf

Route /var/www/spencerlepine.com/public as the home in spencerlepine.com.conf and spencerlepine.com-le-ssl.conf

Milestone #4: host "gatsby build" to build on top on

### Next Step: Install Gatsby on bash:

- Read: <https://www.gatsbyjs.com/docs/tutorial/part-0/>

-

Next Step: build personal website, add blog post:

Put my medium article on the site: (use npm package to export post?)

<https://medium.com/@macropus/export-your-medium-posts-to-markdown-b5ccc8cb005>

With custom file, add THUMBNAIL images for each post:

Gatsby Image thumbnail:

<https://codinhood.com/micro/frontmatter-images-for-twitter-cards-gatsbyjs>

Frontmatter thumbnail:

<https://codinhood.com/micro/frontmatter-images-for-twitter-cards-gatsbyjs>

<https://cards-dev.twitter.com/validator?>

Max image size was 1mb

Add automatic cover generator (image with text) for a blog post:

<https://www.gatsbyjs.com/plugins/gatsby-plugin-blog-cover/> -

<https://github.com/dillionmegida/gatsby-plugin-blog-cover>

Add meta image for SEO and twitter post (IN THE REACT HELMET):

<https://www.gatsbyjs.com/docs/add-seo-component/>

Add link to reference blog post in a TWEET w/ link and hash-tags

Add metadata to blog post for a TWITTER card photo

Milestone #5: Blog posts use metadata and cover image, much more useful than dry/blank website

**Next step: Figure out how I will do website updates without breaking anything:**

Build gatsby app locally

Push public (build) folder to REPO

Download public (static) files to be used for my website

Write a script to download and sync the public folder (copy paste, delete leftover files)

Write script download and rewrite public folder from github

[https://linuxcommand.org/lc3\\_wss0010.php](https://linuxcommand.org/lc3_wss0010.php)

nano syncBuild.sh

chmod 777 syncBuild.sh

sudo ./syncBuild.sh

This script will automatically download the PUBLIC build folder from a repo on my github:

**sudo nano ./syncBuild.sh ubuntu**

```
GNU nano 4.8 syncBuild.sh

#!/bin/bash
RED="\033[0;31m"
GREEN="\033[0;32m"
NC="\033[0m" # No Color

echo -e "$GREEN starting script $NC"

if [ "$#" -ne 1 ]; then
    echo -e "$RED Illegal number of parameters$NC"
    echo "Usage '$0 repo_name'"
    echo
    exit 2
fi
```

```
echo "cloning github repo"
```

```
GITHUB_LINK="https://github.com/spencerlepine/$1.git"
```

```
git clone "$GITHUB_LINK"
```

```
echo -e "$GREEN successfully cloned repo$NC \n"
```

```
echo "Root directory contains these files now:"
```

```
ls -l
```

```
echo "Removing the current public folder"
```

```
rm -r -d public
```

```
echo "Moving into the github repo folder"
```

```
cd $1
```

```
echo "Moving public folder contents OUT of repo folder"
```

```
mv public ..
```

```
echo -e "$GREEN Successfully copy news files $NC \n"
```

```
echo "Moving back into parent directory"
```

```
cd ..
```

```
echo "Deleting leftover github repo files"
```

```
rm -d -r ubuntu
```

```
echo "Restarting apache server"
```

```
systemctl restart apache2
```

```
echo -e "$GREEN Public folder sync complete! $NC"
```

```
echo
```

```
echo
```

Milestone #6: Usable upgradable website that I can send new blog posts to.

#### Next Step: Tweaks, setting up Gists (Current):

Get rid of MySQL

Get rid of PHP

Backup Droplet: <https://docs.digitalocean.com/products/images/snapshots/quickstart/>

#### Putting GISTS in blogs

<https://pixelsips.dev/working-with-gists/>

<https://www.gatsbyjs.com/plugins/gatsby-plugin-mdx/>

<https://www.gatsbyjs.com/docs/how-to/routing/customizing-components/>

Set up mdx plugin for embedding these

Gatsby clean

Npm install react-gist



Import react-gist in mdx file  
Use MDXProvider in blog-post.js layout file  
NOT WORKINGGGG  
Npm uninstall

<https://www.gatsbyjs.cn/packages/gatsby-remark-embed-gist/>  
Npm install `gatsby-remark-embed-gist`  
<https://github.com/weirdpattern/gatsby-remark-embed-gist/issues/12>

#### **Next Step: Add GraphCMS:**

Remove old packages  
Update package.json  
Remove unused packages like mdx plugin  
<https://github.com/GraphCMS/gatsby-graphcms-ecommerce-starter/blob/master/package.json>  
Connect graphCMS  
Update queries  
Remove tailwind css  
Route pages for each blog  
Put my blog post on GraphCMS

#### **Next Step: Refactor site:**

Visit repo: <https://github.com/bchiang7/v4/blob/main/src/config.js>  
Use GatsbyJS site setup  
Query Projects and Blog posts  
Dynamically access email and socials  
Remove all styles from this template  
Leave skeleton of landing page, /projects, /blog/

#### **Next Step: Setting up custom email:**

REFER to Custom Email Set up Google Doc  
<https://medium.com/responsetap-engineering/easily-create-email-addresses-for-your-route53-custom-domain-589d099dd0f2>

52

PROJECTS CONNECT ABOUT BLOGS

## VIEW PROJECTS

PROTECTS

## About Me

Interested in

- Some of my hobbies include soccer, watching movies, and hiking

1  
2  
3  
4  
5  
6  
7

~~TABLE~~

52 GITHUR

LINKEDIN

② TWITTER

CONTACT ME:

email @dope4life.com

Message

Sehd

0000

Blah Blah

Black blank 2

# Portfolio Page Design

# Emphasis Git+Hub!!!

don't take my word  $\rightarrow$  see what I've really done

# RESUME

# SKILLS

**Next step(s):**

<http://www.jekyllnow.com/>

Use Tailwind theme: <https://github.com/ixartz/Next-js-Blog-Boilerplate>

<https://jamstackthemes.dev/theme/nextjs-starter/>

Style my site with theme: [@manny](https://github.com/smithmanny/Portfolio/tree/master/src/utlis)  
used a theme with gatsby and code blocks

Website update video

Custom images being overwritten?

Learn about SEO and meta tags (otherwise the blog isn't that helpful!)

JS email CONTACT form

More Links:

<https://javascript.plainenglish.io/create-a-dark-mode-theme-switch-with-gatsby-and-tailwindcss-d7691f337998>

<https://www.gatsbyjs.com/docs/tutorial/part-eight/>

----- Resources

NOTE: 404 page set up, public/.htaccess file needs to have this line:

ErrorDocument 404 /custom-404.html

```
<li>

  Set up Gatsby app:

  <a href="https://www.gatsbyjs.com/docs/tutorial/part-one/">
Article</a>
</li>

<li>

  Configure files and styles:

  <a href="https://www.gatsbyjs.com/docs/tutorial/part-two/">
Article</a>
</li>

<li>

  Set up tailwind in Gatsby:
```

```

    <a
href="https://www.gatsbyjs.com/docs/how-to/styling/tailwind-css/">
Article</a>
    <a href="https://tailwindcss.com/docs/guides/gatsby"> Docs</a>
</li>
<li>
    Npm install gatsby-plugin-postcss
</li>
<li>
    Add typography plugin:
    <a href="https://www.gatsbyjs.com/docs/tutorial/part-three/">
Article</a>
</li>
<li>
    Add typography theme
</li>
<li>
    Add typography theme
</li>
<li>
    Add GraphQL queries:
    <a href="https://www.gatsbyjs.com/docs/tutorial/part-four/">
Article</a>
</li>
<li>
    Import graphql
</li>
<li>
    Destructure <code>{"{ data }"}</code> in function component
arguments (when query-ing)
</li>
<li>
    Export graphql query at bottom of file
</li>

```

```

<li>

  Plugins and more Queries:

  <a href="https://www.gatsbyjs.com/docs/tutorial/part-five/">
Article</a>
</li>

<li>

  Add remark plugin:

  <a href="https://www.gatsbyjs.com/docs/tutorial/part-six/">
Article</a>
</li>

<li>

  Programmatically create blog pages

  <ul>

    <li>

      <code>

        {"/gastby-config.js:\n\
          resolve: `gatsby-source-filesystem`,\n\
          options: {\n\
            name: `posts`,\n\
            path: `./src/posts/`,\n\
          },\
        },"}

      </code>

    </li>

    <li>

      It creates pages that go INTO the posts folder, not routing
      through the entire app directories

    </li>

  </ul>

</li>

<li>

  Set up queries

</li>

```

```
<li>

  Queries broken?

</li>

<li>

  Gatsby plugins on different versions and not lining up

</li>

<li>

  Add siteUrl to siteMetadata in <code>gatsby-config.js</code>

  <a href="https://github.com/gatsbyjs/gatsby/issues/13412">
Question</a>
  </li>

<li>

  CONVERT package.json to older versions

</li>

<li>

  Gatsby Remark gist?

  <a
href="https://www.gatsbyjs.cn/packages/gatsby-remark-embed-gist/">
Article</a>
  </li>

<li>

  Post about Gatsby Remark gist

  <a href="https://nicu.dev/posts/gatsby-embed-url"> Article</a>

</li>

<li>

  Migrate to mdx (issue with remark):

  <a
href="https://www.gatsbyjs.com/docs/how-to/routing/migrate-remark-to-mdx/">
Article</a>
  </li>

<li>

  Add prism:

  <a
href="https://www.gatsbyjs.com/plugins/gatsby-remark-prismjs/"> Article</a>
```

```

    </li>

    <li>

        Add prism:

        <a
href="https://www.gatsbyjs.com/plugins/gatsby-plugin-mdx-prismjs/">
Article</a>
    </li>

    <li>

        Use this for Prism:

        <a
href="https://github.com/FormidableLabs/prism-react-renderer"> Article</a>
    </li>

    <li>

        Add prism to MDX files:

        <a
href="https://codetrain.io/adding-prism-syntax-highlighting-to-gatsby-mdx">
Article</a>
    </li>
</ul>

<ul>

    Email component:
    https://www.twilio.com/blog/gatsby-email-contact-form-react-serverless
    Write about React basic folder setup (why each folder is
important)
    Write about this gatsby app file setup
    https://tailwindcss.com/docs/adding-new-utilities
    PWA stuff from Gatsby Doc or article
    Change bit.ly/spencerlepine
    Tweet in new tab
    <br/>

    ## To do:

    - Display 6 latest articles with set limit
    - Style website
    - connect google analytics
    - about page

```

```
- contact
</ul>
</Layout>
```

---

### Other topics:

Write about building Grocery App  
Write about creating DEV site  
Write about implementing BLOG  
Write about HOSTING my website  
Write about MAC App setup - Best Visual Studio code extensions

Write about creating WOOFER app

[Google's keyword planner](#)

showbiz antiquity ability acclaim

78h\$-9hK90O\_

Choosing my Front-end + CMS setup

Could have hosted on Netlify, connected github repo, and had builds every time I upload a file.

A headless CMS would manage my posts and require API calls to fetch blog post data. This was not necessary if I was running a small site

What is Gatsby - Gatsby is a static site generator that is built on top of React. You still need a way to feed data/pages into it, from a CMS.

SPENT HOURS debugging and trying to get things lined up



