Legend

- ✓ Personal Recommendation / Opinion
- ✓ Alternative Option - Pick this or purple
- ✓ Order in roadmap not strict (Learn anytime)
- ● I wouldn't recommend

Find the detailed version of this roadmap along with resources and other roadmaps

http://roadmap.sh

Front-end

Internet

- How does the internet work?
- What is HTTP?
- Browsers and how they work?

- DNS and how it works?
- What is Domain Name?
- What is hosting?

HTML

- Learn the basics
- Writing Semantic HTML
- Forms and Validations
- Conventions and Best Practices

CSS

JavaScript

- Syntax and Basic Constructs
- Learn DOM Manipulation
- Learn Fetch API / Ajax (XHR)
- ES6+ and modular JavaScript
- Understand the concepts Hoisting, Event Bubbling, Scope, Prototype, Shadow DOM, strict

- Accessibility
- SEO Basics
- Learn the basics
- Making Layouts
- Responsive design and Media Queries

- Floats
- Positioning
- Display
- Box Model
- CSS Grid
- Flex Box

Version Control Systems
What are they and why you should use one

Basic Usage of Git

Web Security Knowledge

Repo hosting services
Create account and Learn to use GitHub

- GitHub
- GitLab
- Bitbucket

npm and yarn both are fine, pick one or learn both, there is not much difference.

Package Managers

- npm
- yarn

Get at least a basic knowledge of all of these

| HTTPS | Content Security Policy |
| CORS | OWASP Security Risks |

CSS Architecture
With modern frameworks and CSS-in-JS you don't have to worry about these anymore but still it would be a good idea to get familiarized with BEM atleast.

- BEM
- OOCSS
- SMACSS

CSS Preprocessors
With how the modern frameworks there has been more push towards CSS-in-JS so you may not need these but still a good idea to familiarize yourself.

- Sass
- PostCSS
- Less

Task Runners

- npm scripts

Build Tools

Linters and Formatters

- Prettier
- ESLint
- StandardJS

Module Bundlers

- Webpack
- esbuild
- Rollup
- Parcel
- Vite

Pick a F[ramework]

React

Redux

Modern CSS

- Styled Components
- CSS Modules
- Styled JSX
- Emotion

HTML Templates

Web Components

Custom Elements

Shadow DOM

Bootstrap

Bulma

CSS first frameworks which don't come with JavaScript framework components by default.

CSS Frameworks

Tailwind CSS

Chakra UI

Material UI

Radix UI

JS based and better to use with your framework based JavaScript applications.

Jest

react-testing-library

Cypress

Enzyme

You can fill all your testing needs with just these.

Testing your Apps

Learn the difference between Unit, Integration, and Functional tests and learn how to write them with the tools listed on the left.

Mocha

Chai

Ava

Jasmine

Storage

Web Sockets

Service Workers

Location

Notifications

Progressive Web Apps

Type Checkers

TypeScript

Flow

PRPL Pattern

RAIL Model

Server Side Rendering (SSR)

React

Next.js

After.js

Using DevTools

Credentials

Learn different Web APIs used in PWAs

Calculating, Measuring and improving performance

▶ We now have a YouTube Channel.

Vue.js

Nuxt.js

GraphQL

Apollo

Relay Modern

React Native

NativeScript

Flutter

Ionic

Mobile Applications

Static Site Generators

Next.js

GatsbyJS

Nuxt.js

Vuepress

Jekyll

Hugo

Gridsome

Eleventy

Desktop Applications

Electron

Carlo

Proton Native

Web Assembly

Web Assembly or WASM is the binary instructions generated from higher level languages such as Go, C, C++ or Rust. It is faster than JavaScript and WASM 1.0 has already shipped in the major browsers. W3C accepted it as an official standard at the end of 2019. It will still take quite some time to go mainstream though.

Keep Learning

Open S