

Coding Resources for Full Stack Students

Welcome to Skillspire's Full Stack Web Development bootcamp! In order to get the most out of your upcoming course, we recommend you familiarize yourself with the environment you will be working in. Below, you will find a list of very helpful free resources. Some of these resources will help you prepare for the course and some of them will be useful during the bootcamp. The earlier you start going through these resources, the easier it will be to keep up with the more advanced information in the bootcamp.

To get started, you will need to sign up for some free accounts and download some items you will be using during this course.

1. The first thing you will need to do is download a code editing tool called VSCode.
 - a. You can download it here: <https://code.visualstudio.com/>
 - b. Here are some helpful guides for setup and getting started:
<https://code.visualstudio.com/docs/setup/mac>
<https://git-scm.com/book/en/v2/Getting-Started-First-Time-Git-Setup>
2. Next you will need to sign up for GitHub.
 - a. What is GitHub and why will you need it? Check out this helpful article:
<https://kinsta.com/knowledgebase/what-is-github/>
 - b. Sign up for an account here: <https://github.com/>
3. Create an account on Canvas at <https://canvas.instructure.com>
4. Download MS Teams - <https://www.microsoft.com/en-us/microsoft-365/microsoft-teams/download-app> **Please download the desktop version.**

Now that you have these set up, you should start going through these free introductory mini-courses and tutorial videos. You don't need to get through all of this material before bootcamp, but the more you do, the more comfortable you will feel in the fast paced classroom setting. Please try to get through the HTML and CSS resources beforehand if possible. **HTML and CSS** will be the first things covered in the bootcamp. Then we will cover **terminal basics** (this section won't take long), followed by **javascript basics**, and **Github** will be covered last. So, please keep this in mind as you go through these resources.

Ready? Let's begin!

Codecademy offers free access to mini-courses you can take:

3. Start with these 3 courses here: <https://www.codecademy.com/catalog/language/html-css>
 - a. Introduction to HTML (7 hours)
 - b. Learn CSS (15 hours)
 - c. Make a Website (7 hours)

*Note: There are additional Codecademy mini-courses below, but they will be covered later in the bootcamp.

Additional material as you go through the bootcamp:

4. Console Foundations: TeamTreeHouse (just the first section - "Getting Started With the Console"): <https://teamtreehouse.com/library/console-foundations>5. Intro to JavaScript (30 hours) through Codecademy. You don't need to do all of this before the bootcamp. JavaScript will be covered toward the end of the bootcamp.
<https://www.codecademy.com/learn/introduction-to-javascript>
6. Intro to jQuery (9 hours) through Codecademy:
<https://www.codecademy.com/learn/learn-jquery>
7. *Eloquent JavaScript* by Manjn Haverbeke is a free PDF: <http://eloquentjavascript.net/>
8. *You Don't Know JS: this & Object Prototypes* by Kyle Simpson is **free** on Github. Just click on the chapter links below the yellow and black image. You don't need to click on the purchase button:
<https://github.com/getify/You-Dont-Know-JS/tree/master/this%20%26%20object%20prototypes>
9. Intro to Git Basics: TeamTreehouse provides paid courses but you can get around paying by completing the courses within the free trial period.
<https://teamtreehouse.com/library/git-basics>

Books you can purchase if you like, but not required:

10. *HTML & CSS: Design and Build Websites* by Jon Duckett (\$17.32):
https://www.amazon.com/HTML-CSS-Design-Build-Websites/dp/1118008189/ref=sr_1_1?ie=UTF8&qid=1500578802&sr=8-1&keywords=HTML+and+CSS
11. *JavaScript & jQuery* by Jon Duckett (\$24.28):
https://www.amazon.com/JavaScript-JQuery-Interactive-Front-End-Development/dp/1118531647/ref=sr_1_1?ie=UTF8&qid=1500578752&sr=8-1&keywords=javascript+and+jquery

You don't really need this last resource, but if you would like to learn how to use Sublime Text2 (it is an alternative to VsCode text editor), this is a good tutorial. You will be required to use VsCode as you advance in the bootcamp.

12. Jeffrey Way's tutorial on Sublime Text 2:

Complete tutorials 1-5 (view through YouTube instead of TutsPlus because TutsPlus will charge you for these same videos)

https://www.youtube.com/watch?v=5AV9zJH2n_Y

If you have any questions, please feel free to contact us: info@skillspire.net

DIY Coding Resources For Students Entering Full Stack Web Development

HTML & CSS

- CodeCademy's HTML & CSS course
 - www.codecademy.com
- HTML & CSS: design and build websites by Jon Duckett
 - \$17.32 at https://www.amazon.com/HTML-CSS-Design-Build-Websites/dp/1118008189/ref=sr_1_1?ie=UTF8&qid=1500578802&sr=8-1&keywords=HTML+and+CSS

JavaScript/jQuery

- CodeCademy's JavaScript course
 - www.codecademy.com
- CodeCademy's jQuery course
 - www.codecademy.com
- Eloquent JavaScript by Manjn Haverbeke
 - Free PDF available at <http://eloquentjavascript.net/>
- You Don't Know JS: this & object prototypes by Kyle Simpson
 - Free at <https://github.com/getify/You-Dont-Know-JS/tree/master/this%20%26%20object%20prototypes>
- You Don't Know JS: scope & closures by Kyle Simpson
 - Free at <https://github.com/getify/You-Dont-Know-JS/tree/master/scope%20%26%20closures>
- JavaScript & jQuery by Jon Duckett
 - \$24.28 at https://www.amazon.com/JavaScript-JQuery-Interactive-Front-End-Development/dp/1118531647/ref=sr_1_1?ie=UTF8&qid=1500578752&sr=8-1&keywords=javascript+and+jquery

Text Editors

- Jeffrey Way's tutorial on Sublime Text 2
 - Complete tutorials 1-5 (view through YouTube instead of TutsPlus because TutsPlus will charge you for these same videos)
 - https://www.youtube.com/watch?v=5AV9zJH2n_Y

Command Line / Mac Terminal

- Console Foundations course in TeamTreeHouse (just the first section, titled "Getting Started With the Console")
 - TeamTreehouse provides paid courses but you can get around paying by completing the courses within the free trial period.
 - <https://teamtreehouse.com/library/console-foundations>

- Git Basics
 - TeamTreehouse provides paid courses but you can get around paying by completing the courses within the free trial period.
 - <https://teamtreehouse.com/library/git-basics>

Additional Materials:

125+ Free Web Development Tools & Resources in 2018

Posted on **July 31, 2018** by **Dan English**[Leave a Comment](#) on **125+ Free Web Development Tools & Resources in 2018**

Have the greatest toolset at your disposal with this super-size curated list of the very best resources and tools available to date. I've lost count how many times I have been shown a certain resource or fell-upon one and one, it's amazing and two, it's been around for ages! Some resources and tools slip under your radar easily, so this article is to help prevent that happening. As a developer you should always know what the best resources are around, enabling you to make epic web-applications every-single-time. I'll do my best to list mostly free to use resources throughout.

HTML Tools & Resources

HTML is the foundation of web applications, it may seem that it's too simple to need any extra enhancements but don't be fooled. HTML5 should be done right and efficiently to really reap the rewards in the long run.

- [Boilerplates](#) are always useful, enabling super-quick construction of a project with modern and correct syntax.
- [W3C Validation](#) – This tool is considerably missed out when it comes to correct HTML5 syntax. A vast majority of websites are guilty of non-W3C-Validated HTML on their site. It's always better to do it the right way though, so check this tool out to give you the go ahead with your code.
- [Literally Canvas](#) – Create custom HTML-canvas with this elite tool. Literally offers the capability to construct drawings and then export or embed them in your web page.
- [HTML5 Please](#) – Modern technology is changing fast, use this tool to make sure the elements you want to use in your project are used correctly and efficiently.
- [Draw SVG](#) – This creative tool is very similar to Literally Canvas; the difference is the format is SVG. Create/Draw a beautiful SVG and embed the drawing on your web-page with base64 encoding technology.
- [HTML Minifier](#) – Enable enhanced web-page load time with this minifying tool. Configure exactly how it's minified with a vast array of options too.

CSS Frameworks

Over the past five years, many frameworks specifically made to aid rapid web-development have emerged. Some have set the bar for others to meet, for example, [Bootstrap](#). Not only do CSS Frameworks speed up development, but they also bring beautiful design to your page with minimal effort. Here are some of the best available –

- [Bulma](#) – This framework is particularly good due to its e-learning video resources to help you make the most of the components available.
- [Bootstrap](#) – Originally created by a great dev at Twitter, now has a huge community and is considered the king of CSS frameworks. Bootstrap comes pre-loaded with Microsoft's ASP.NET MVC projects, so that must mean something!
- [Propeller](#) – This relatively new framework takes modern-day Bootstrap and mashes it together with Google's material design. The outcome is flawless and is well worth a go.
- [Material Design CSS](#) – A great resource released by Google, add a very recognizable design to your own website with this jam-packed framework. Check out the [showcase](#) to get a feel for what is possible.
- [Semantic UI](#) – Another ultra-modern framework that offers a range of clean elements with beautiful transition effects, models and more. Semantic has just released version which integrates [Font-Awesome 5.0](#).
- [Mini.css](#) – Gets its name from the size of the styling-packed framework file that is only 54kb. It provides three different themes to play with; default, dark and Nord. Getting started is super-easy with the provided documentation explaining each style that can be used.
- [MUI](#) – MUI follows the guidelines of Google's material design and does it very well at that. MUI comes prepared to be used with React or Angular based projects meaning even further rapid-development.
- [Material Design Lite](#) is yet another material design framework, but the benefit is, it comes with no bloat.
- [PaperCSS](#) is an interesting framework that uses a paper-like handwriting-style font. It may only be useful for a small handful of projects but it's worth checking out.

CSS Tools & Resources

Although not full-throttle frameworks, these nifty little tools & resources are great to know about. Some as simple as a gradient-generator to color a single element on your web-page.

- [Ultimate Gradient Generator](#) comes with a lot of pre-sets to work with, or similarly start with these pre-sets and customize to please. If not, make a gradient from scratch and the tool will provide the correct CSS ready to copy and paste directly into your style sheets.
- [Animate.css](#) – Animations & transitions are pretty awesome in modern design, using these pre-defined animation libraries in your own project couldn't be any easier. The creators have even made an instant play showcase to view each and every animation.
- [Hover.css](#). Not sure what effect to style your buttons with? Look no further, this great library provides an array of hover-effects that can be instantly added to your buttons. See the immense showcase of button effects on their homepage.

- [Balloon.css](#). This library may not be for everyone but, tool-tips are another informative element to one's web-page. Balloon even comes prepared for integration with Font Awesome and Emojis.
- [Smart CSS Grid](#) is perfect if you don't want to use a full CSS framework. It's super tiny size of 0.5kb will allow your web-page to still be ultra-fast with access to a genius grid system.
- [Epic Spinners](#). You will find it hard to believe that this library uses pure CSS. These epic spinners are great for loading gestures on HTML form submissions or even initial page loading. Epic Spinners comes prepared with source code to use directly in VueJS too.
- [PurgeCSS](#) is not a CSS library as such, but it's a tool to clean-up huge CSS files with old-tat. Big projects, over time, can have a build-up of styles that are simply not needed anymore. This tool removes that problem.
- [Image Hover Effects](#) – 8 great resources for enhancing your web-page with slick effects when hovering over images.

JQuery Plugins & Frameworks

- [jQuery UI Framework](#) – jQuery UI brings a brilliant set of components all-packed in either a single library or as singular-component packs. Things like accordion menus & input auto-complete that can take time to construct manually are already ready for your disposal.
- [jQuery Mobile Framework](#) – Another framework that provides a set of feature-rich elements with an addition of mobile-design. jQuery Mobile enables rapid-development of mobile application, be it web-based or mobile app-based.
- [jQuery Easy-UI Framework](#) – With deep-documentation to help you get going, jQuery EasyUI provides components for both jQuery & Angular projects. It's live-demos are great to visualize and immediately download source-code.
- [Lettering JS](#) – Add phenomenal textual-design to your web page with Lettering JS. The library provides a really fun way to display text and subsequently still really catches the eye.
- [NanoGallery2](#) – Most websites these days have an image gallery of some sort. If your using jQuery, then this plugin is ideal. It even provides an online-builder to rapidly develop and design your gallery before using it.
- [Dragula](#) is a cheesy name, but it does allow dragging elements around the screen, which is awesome. This bolt on to jQuery can come in handy for a variety of web-based tasks.
- [jQueryHouse](#) is the one-stop-website for the latest plugins for jQuery, check its vast selection of articles.
- [Tabslet](#) – Meaningful, space saving and beautiful, these tabs enable users to click on separate tabs to reveal different content. These are especially great for online-shops.

JavaScript Data Visualizations

JavaScript visualizations are amazing for many things, including business applications, public informational boards, data analysis, trend analysis, and the list goes on. I wrote an article about the very best [JavaScript Charting Libraries](#). This extensive article offers sixteen libraries that can be used throughout data-rich web-applications.

Icon Fonts

Icon Fonts are one of the greatest resources for pixel perfect web-design. These icons are super-sharp and do not 'pixelate' when zoomed upon, unlike images like .jpg or .png. Icons like these are great for logo design or general informative visuals across your web-page.

- [Font Awesome](#) is exactly that; Awesome. With over 3500 icons to use, be sure you will find the perfect one for your project. Font Awesome even curates' icons into sub-groups like Accessibility, Audio/Video, Emoji, and Design, enabling fast location of the perfect visual.
- [Material Design Icons](#) can be used in any web application, don't be fooled and think that you can only use it with a material design framework. Material.io offers a huge range of icons in a range of pre-set-themes. Additionally, there are a handful of animated icons that are absolutely glorious.

Database Engines & Tools

For data-rich projects, these free-to-use database engines are highly-used throughout the development industry. Meaning two things, one they are very easy to get set-up with and secondly, come with extensive documentation and faqs.

- [MySQL Community](#) is a free version of the MySQL technology. It comes with quite a few great features. MySQL can be used with virtually every leading programming language too. In addition to this, its syntax is extremely intuitive which is always a bonus!
- [MySQL Workbench](#) allows the visual design of database's and tables and also the ability to run commands on the database to yield results into the application too. Workbench ships with a beneficial database performance monitor enabling a range of key performance indicator analysis.
- [SQL Server Express](#) – Microsoft's solution to data-basing; SQL Server. The express version is a high-performance engine that is capable of working all the major programming languages. In 2016, SQL Express shipped with a new exceptional feature for encrypting data named [Always Encrypted](#), which is especially useful with the roll-out of [GDPR](#) in May 2018.
- [SQL Server Management Studio \(SSMS\)](#) provides a hassle-free solution to managing your databases and tables. Design, edit, visualize, backup are a few features, to say the least. SSMS is a database administrator's dream-tool, and to top it off, it is free!
- [Mongo DB](#) is somewhat different from SQL-engines like SQL Server. MongoDB is a file-based No-SQL data-storage technology, it enables simplicity when working with huge data sets. Mongo is heavily JSON oriented so knowing how JSON is structured will be a benefit when getting started. This data-storage is currently very popular with NodeJS.

Programming Frameworks

Using a framework is one of the best things you can do with the right programming language, especially PHP. I recently tried out Laravel for PHP and I can honestly say it's one of the best decisions I ever made. If you're wondering what the best frameworks around these days are, I've curated some articles from around the web listing the very best available.

PHP

The following article [Best PHP Frameworks for Expert PHP Web Developers in 2018](#) lists 10 epic frameworks that work in tandem with PHP. Each one in the list has a nice description giving you an instant feel for the technology before you think about using it.

Python

Develop fluently with one of these [Top 10 Python Web Frameworks](#). This great list includes popular Django and Flask. Hackernoon goes into informative chunks of their features helping you pick out the pros and cons quickly.

C# Asp.NET

Build beautiful dynamic web-applications with non-other than the .NET child [ASP.NET framework](#). ASP allows complete development with the C# programming language and is a dream to work with too.

JavaScript

JavaScript is blazing at the moment, being able to work in full stacks like MEAN, essentially meaning you program only with JavaScript. It's pretty crazy how fast it's moving now. Here are the [Top 5 JavaScript Frameworks](#) available today.

Web Development Stacks

In most cases, if you are developing a dynamic web application, a software stack is needed, I wrote an article on [how to be a Full Stack Developer](#) with a range of development stacks that are available to use for free. It lists four different stacks that use .NET, PHP, Python, and JavaScript.

IDE'S (Integrated Development Environments)

Gone are the days of having to flesh out code in text-editors without any auto-complete and other clever features. I take my hat off to those guys who had to code in those painful environments, I certainly couldn't have done it!

- [Visual Studio Code](#) – Microsoft really has pulled it out of the bag with this epic IDE. It runs cross-platform on Mac, Linux, and Windows flawlessly. In addition to this, it's free and can interpret all popular languages.
- [Atom IDE](#) – This free-to-use IDE was made possible by GitHub & Facebook. It's rapidly quick, has auto-complete features and is completely open-source too.
- [Netbeans](#) – Is a great piece of software, understanding PHP, HTML, CSS, JavaScript, Java C, and C++. Netbeans can also be bulked up with a range of community plugins too.

Online Web Tools

The following list is an article I wrote earlier, it has a massive mix of technologies that these tools benefit. From HTML all the way through to SQL databases and programming languages. The list contains 33 tools currently and is guaranteed to be helpful in one way or another. See these [33 Tools for Programmers and Web Developers Here](#).

Cheat Sheets

Having cheat-sheet reference sheets are great when learning new technologies and languages. Whether it's syntax, commands or conditional statements, tailored cheat sheets from the following links will help you indefinitely.

- [Cheatography](#) offers plenty of programming cheat sheets ready to download and print.
- [IdiotInside Cheatsheet Article](#) provides a curated collection of programming language sheets, database sheets, and even WordPress cheat sheets.

Learning Resources

Always eager to further your knowledge with development? Then these following sites will help you do just that.

- [Code Academy](#). Learn to code for free in a range of technologies including HTML & CSS.
- [Free Code Camp](#). Learn HTML to CSS and more advanced technologies like Databases, NodeJS, React and even D3.js.
- [Coursera](#) offers a huge variety of industry training and has a great development section too.

Interview Resources

Landing your first job or the next one will always be a new challenge, here are a few resources to help you become fully equipped to burn your next job interview.

- [Tech interview handbook](#) provides a huge array of curated content including algorithms, how-to-prepare guides, and questions to fire back at your interviewer!
- [Front End Interview Handbook](#) is exactly what it says, a vast-bible to landing a front-end job.
- [30 Seconds of Interview](#) offers questions, answers, and hands-on learning with HTML, CSS and JavaScript. These commonly known aspects of each language are invaluable to back up your knowledge with.

Free Crash Course Learning

- [JavaScript 30](#) created by Wes Bos. This course cleverly puts together 30 challenges in vanilla JavaScript for hands-on and fun learning.
- [30 Seconds of Code](#). Learn in bite-size chunks with general coding principles explained in 30 seconds.
- [30 Seconds of CSS](#). A curated collection of commonly used CSS snippets to master under 30 seconds.
- [30 Seconds of PHP](#). PHP snippets that you can learn in under 30 seconds.
- [30 Seconds of Python](#). Python code curated into chunks of 30-second learning tutorials.