WebDev/Digital Tutorial by V

A course started in 2015 with Front End, still updating in 2023+, 100% free to use

Notice: This document will soon be replaced with a free to use website containing all the materials.

Course #1: Intro & HTML

(week 1)

Introduction to Front End Development

How the Web works: HTTP, packets, browsers, developer tools, etc.

What is a web page? How does the browser work? How can I see web page info?
» Start here: Resilient web design book (**mandatory**) & How does the Web work?
That resource is relatively large for what we need to get into, so focus on these links:
» ▶ How does the Internet work? - Naked Science Scrapbook
» The Odin Project – Web Development 101 (NEW) + HTML Tutorial (Romanian)
» ▶ A Packet's Tale. How Does the Internet Work?
» How DNS Works + ▶ How DNS Works (NEW)
» ▶ CS50 2017 - Lecture 6 - HTTP - part of https://www.edx.org/cs50 + How HTTPS works (NEW)
» ▶ How the Internet Works for Developers - Pt 1 - Overview & Frontend (**mandatory**)
» ▶ How the Internet Works for Developers - Pt 2 - Servers & Scaling (**mandatory**)

Information architecture basics

You will need to grasp the basics of a field which has been around much longer than the Web itself, but which serves as a base to how we write HTML and how we navigate and search online. It's a complex field, rooted in the craft of librarians of old, that needed to devise smart ways to describe and organize information / books, and you will just need to skim through it so you get a good understanding of what it means to describe, arrange and provide access to information in general.
» Understanding Information Architecture (**mandatory**). Read this article + this primer (NEW)
» Book: **Information Architecture for the WWW**, chapters 1–9.
» Book: **A practical guide to Information Architecture**: all of it. (**skim through at least 1 book**)

Introduction to HTML

A brief history of HTML

Knowing the basic evolution of HTML will allow you to appreciate where we are now and how long we've come since the early days of the Web.
» Book: **HTML5 for Web Designers**, chapter 1, or A brief history of markup on A List Apart

HTML step by step

There are some great online tutorials for the basics of HTML (**mandatory, at least 2 – HTML only**):
» Mark Pilgrim's Dive into HTML5 free e-book (NEW) + Mozilla Front End tutorial (NEW)
» Learn HTML/CSS: Shay Howe + CodeSchool Web Path + Jen Simmons teaching HTML + Adi Purdilă
» Washington.edu course on HTML + Khan Academy Web Programming + HTMLDog + MarkSheet
Notice that most of these (free) tutorials also have a CSS component. You can try going through the CSS now to make it easier for you next week, but for now I **strongly** recommend you focus on the HTML part. That will allow you to get all these tutorials done in time, so you get a firm understanding of HTML this week. You'll need it! You'll also need:

A full HTML reference

» Mozilla Developer Network: HTML reference (**mandatory**) (this site is **extremely** valuable!)

Course #2: CSS & SFX

(week 2)

Introduction to CSS

HTML+CSS tutorials

The exact same tutorials mentioned in Course #2 (**mandatory, at least 2 – HTML + CSS**):

» Learn CSS from Web.DEV (NEW) + the HTML and CSS courses from Mimo (NEW)

» Learn HTML/CSS: Shay Howe / CodeSchool Web Path / Khan Academy Web Programming

» The Odin Project: HTML and CSS (NEW) + Web Almanac on CSS (NEW) + Learn Responsive Design

» Kevin Powell's tutorial on Scrimba + Per Harald Borgen's + FreeCodeCamp Responsive Web Design

» 30 days to HTML/CSS (NEW) / CSS Protips (NEW) / https://web.dev/learn/css/

CSS+Layout tutorials

» Washington.edu course on CSS + Flexbox tutorial + An interactive guide to Flexbox (NEW)

» Learn Layout (**mandatory**) + Understand CSS Layout algorithms (**mandatory**) (NEW)

» Grid for layout, Flexbox for components (NEW) / Guide to Grid (NEW) (**mandatory**)

» Relearn CSS layout (NEW) / Smol CSS layouts (NEW) / CSS Grids by Wes Bos (NEW) / FlexboxZombie

» HTMLDog: Beginner CSS tutorial, Intermediate CSS tutorial, Advanced CSS tutorial / Grid Garden

» Jen Simmons Labs (NEW) + Grid by Example (NEW) + Defensive CSS (intro) (NEW)

CSS articles, tools and information

» Calculating CSS Specificity / Specificity calculator (**mandatory**)

» The CSS "homepage" / CSS: Designing for the Web / Explain CSS selectors in plain English

» CSS Zen Garden (**mandatory**) + CSSTricks Almanac (NEW) + CSS Vocabulary (NEW)

» Mozilla Developer Network CSS Info / Solve most of IE's bugs

» An Introduction to Browser Rendering (**mandatory**) (try Chrome Canary to see this)

A full CSS (and HTML / Accessibility / sustainability etc.) reference

» Mozilla Developer Network: CSS reference (**mandatory**)

» A complete guide to CSS functions (NEW) / Modern CSS solutions for old CSS problems (NEW)

» CSS Tricks Guides + Design for Sustainability / Sustainable Web (NEW)

Special effects using CSS3 / Fonts (soon to be deprecated)

From now on you should try to explore every cool site you see, inspecting its CSS and element distribution with your favorite browser inspection tool. Some of them are done right, some of them aren't, but the point is you need a "hacker attitude" in order to steal the interesting parts and become versed in the ways of deconstructing someone else's design in order to find out how it works.

Effects and tutorials

» Codrops (I recommend subscribing to this resource, it's one of the best)

» CSS-Tricks CSS Snippets / A complete guide to CSS transitions (NEW)

» Magic animations / Hover effects / Hovers / Effekts / Box / Advanced animations (NEW)

» CanIUse – Use this to check in what browsers are some features supported, e.g. CSS Grid

» CanIEmail – Similar to CanIUse but for email clients + HTML + CSS in Emails: What Works in 2022? / Debugging CSS (NEW) / FrontEnd.ro (NEW)

» CSS3 gradient generator – Use this to generate gradients of any kind for CSS backgrounds

» Great icon sets: SimpleIcons + HeroIcons + Icones + ReactIcons + DevIcon + others

Icon fonts (deprecated - use inline SVG icons instead)

» Why IconFonts are great / Iconfont generator: IcoMoon / Iconfont kit: FontAwesome

» How to animate SVGs, the simple way (might not be 100% free) + SVG Animations (NEW)

Course #3: Your first project – a quiz

(weeks 3-4)

Tools of the trade: IDE, GIT, FTP

Until now, you've been exploring front end development mostly in browser-based applications. Now it's time for the real deal. We'll set up your GIT account so you have full source control (while also teaching you how it works). We'll then set up your IDE (ideally, WebStorm) so you have full access to its numerous helpful features, and get you acquainted with some of them. For people taking this course from home / their spare time, obvious alternatives will be explained. // GIT tutorial Română

Version Control clients & services

» GitHub / SourceTree / Tortoise SVN / GIT

Using Version Control

» GIT 101 / PDF guide / PR guide / Conflicts
» GitHub + SourceTree tutorial / Commits
» GIT with WebStorm / Project rules / Immersion / Using the terminal / Workflows / 101 / Setup / Oh shit, GIT?

IDEs

» Visual Studio Code (free and surprisingly good)
» WebStorm (paid) / Sublime or Brackets (free)
» Online editors (for testing only)

FTP clients

» FileZilla / Total Commander / CoreFTP

Semantics, Standards & Validation for HTML/CSS

Standards & Validation

Standards! Highly important, even though a page "works without them". The truth is, it doesn't, not in the way we want it to: extensible, easy to debug, with a much lowered bug threshold than a non-standards-compliant version. Please read through all these materials carefully, because this is one of the most important things you need to grasp at this stage.
» Washington Edu lesson in Standards
» What are web standards and why should I use them? (**mandatory**)
» Book: **Designing with web standards**, all of it.
» W3C HTML Validator / W3C CSS Validator
» Washington.edu courses on: Web Standards and Accessible Design + Quality Control

Semantics

» Let's talk about semantics / Pursuing semantic value (**mandatory**)
» Introduction to the semantic web / Semantic code: What? Why? How?
» HTML5 semantics from Smashing Magazine / Diving into HTML5
» Microformats primer - Sitepoint (**mandatory**)
» Google Structured Data Intro (**mandatory**) + Google Structured Data Examples (**mandatory**)
» Get started with Microformats & Microformats v2
» Why Semantic Search is important, from Ahrefs (NEW)

Mobile-first Responsive Design (everything is mandatory)

» Book: **Responsive web design**, all. Plus Ethan Marcotte's articles on A List Apart. Mostly this one!
» Book: **Mobile first**, all of it. Plus Luke Wroblewski's interesting presentations. Most of them...
» Scaling User Interfaces / Creating a mobile-first responsive web design / Responsive Design is...
» RWD Tutorials / Building a better responsive website / RWD fundamentals / Learn RWD @ Web.Dev
» A full list of devices and their resolutions / Device agnostic breakpoints / State of the Web
Natural responsive web design breakpoints / Re-thinking breakpoints in responsive design
» I have no idea what the hell I am doing // Responsive Images tutorial on MDN // FlexboxFroggy
Complete guide to Media Queries // https://web.dev/learn/images/ // https://viewports.fyi/

Course #4: Real world problems

(midterm exam + weeks 5-7)

Accessibility

» https://www.a11yproject.com/ / Accessibility link list from WASP / W3C Accessibility Standards
» Accessible forms (all levels) + Sign-in form best practices (NEW)
» Easy checks: a fast review of web accessibility (**mandatory**)
» Introduction to ARIA / https://ixdchecklist.com/ / https://not-checklist.intopia.digital/ / https://www.a11yproject.com/checklist/ / Website accessibility report generator / UX Recipe
» Just Ask: Integrating Accessibility Throughout Design (**mandatory**)
» Other accessibility tools / Complete guide to accessible web components (NEW)
» How a CSS framework can enforce accessibility
» Derek Featherstone Web Accessibility primer / https://web.dev/learn/accessibility/
» 13 days of Accessibility by Sparkbox / A beginner's guide to manual accessibility testing - Pope Tech Blog (new) / ARIA vs HTML — Adrian Roselli (new)
» Official Web Content Accessibility Guidelines documentation
» The new 2020 US Government Digital Design System that includes accessibility principles
» A very nifty tabindex enhancing primer for navigation (NEW)

Usability / UX (aka Advanced Common Sense)

» Book: **Don't make me think**, all of it. (**mandatory**)
» Jacob Nielsen's Usability 101 + Jacob Nielsen's 10 Rules of Thumb for Usability (**mandatory**)
» If you have time, explore more of NNGroup's excellent articles, since they're the best out there.
» Usability basics from Usability.org / The Ultimate Guide to UX Research / Free UX books
» Making the web more inclusive and usable from Usability.com.ua / UX Course / HCI / UXBeginner / UX Challenges / High Quality Microinteractions / UX research methods / UX methodology
» Principles of website usability / 25 point usability checklist / Yet another checklist / Interview sheet
» UX Design course at Google (NEW) / UX Fundamentals (NEW) / Why Do We Interface? (NEW)
» Laws of UX (NEW) / UX Knowledge Base (NEW) / How to make sense of any mess (NEW) / List (new)
» One of the best and easiest to understand indexes of studies on usability: gov.co.uk and their Design Principles are great reads! Also, Nielsen Norman Group's heuristics. Jeremy Keith collects principles.

I have a design. Now what? (Photoshop 101) (to be disc.)

We will now learn how to transform a Photoshop document into an HTML layout. That means you will need to grasp a basic understanding of Photoshop tools for selecting, measuring and properties, which will then help you structure your HTML and define your CSS styles.
Please note that in all these tutorials you'll find mistakes. And you'll notice them only if you've paid close attention to the standards, semantics, usability and accessibility notions presented so far. When you do, please correct them as you see fit, or ask me whether something is correct or not.
» PSD to HTML tutorial (**mandatory**)
» PSD to HTML video series part 0, part 1, part 2, part 3, part 4, part 5, part 6, part 7 (**mandatory**)ux
» PSD to HTML Tuts+ Video / PSD to HTML Tuts+ Text
» PSD to HTML: Code a clean business website design / Build a sleek portfolio site from scratch
Please note that we'll be doing a quick demo of how to turn a Photoshop layout into a fully-fledged HTML + CSS site during this course, in our first workshop. By the way, here's a Photoshop Shortcuts Cheat sheet.

WARNING
Photoshop will be discontinued, I'll be switching to Figma, which you can learn right here and here.

Course #5: Your final project

(weeks 8–10 + final exam)

SASS magic

CSS is powerful, but not dynamic. To make it dynamic, you need SASS.
» Official SASS guide (**mandatory**) / Learn SASS in 20 min (**mandatory**)
» Getting started with SASS / A List Apart: Getting started with SASS (**mandatory**)
» The beginner's guide to SASS & SASS CodeSchool tutorial

An example (S)CSS standard

» A living document describing how we aim to write all of our styles: SASS Standards (**mandatory**)

Templating basics

Until now, we've looked at static HTML and CSS projects and how to develop a working site. Now we'll take that to the next level, by exploring how to transform a static structure into a real, dynamic website, with real information stored in a database and dynamic structures for iterating, searching and navigating the site. These are all example templating engines or languages.You should read through at least a couple of them to understand the basic principles.
» Handlebars (JS) / Mustache (JS) / Angular Templating + Tutorial + Another tutorial (JS) / Smarty (PHP) / Getting started in Wordpress templating (PHP)
» http://www.hongkiat.com/blog/angularjs-tutorials-screencast/ (AngularJS) – There are links to various tutorials here. Going through them all (which, most importantly, means reading them all then taking in the examples) will insure you have some basic working knowledge of what AngularJS is and how it works.
» A comprehensive list of most web templating engines (for comparison)
» https://web.dev/learn/forms/ + https://web.dev/learn/pwa/ + PWA for beginners + https://web.dev/pwas-in-app-stores/ + https://every-layout.dev/

Example workflow standards

» GIT Guidelines / HTML Guidelines / CSS / SCSS Standards / JavaScript / ES6 Style Guides / React / JSX Style Guides

Entire websites & tutorials built from scratch using HTML, CSS and JS - Project ideas

- Use these ideas with extreme prejudice! :) + Project Based Learning (NEW) + Scrimba FTW
- Scrimba can be a very useful and diverse approach to learning, but it costs $21 / month. (NEW)
- A new platform offering project ideas – https://www.frontendmentor.io/ (NEW) / calendar
- 50Projects in 50Days (€10 discounted, €100 full price) and iCodeThis from Florin Ion and Brad Traversy (NEW) + IdeasGrab (NEW) + RealWorldExampleApps + 5 HTML/CSS/JS free projects
- COMPLETE front end tutorial: 12HR+ YouTube Coding Bootcamp 2021! by Ania Kubów (NEW)
- Several roadmaps for becoming a "complete" front end (+ back end + devops etc.) developer: WebDevSimplified Front End + WDS Backend, LearnCode Academy, Roadmap.sh, Traversy Media, this one from Front End Masters, etc. (NEW) / Web Dev for Beginners (NEW)
- Frontend Mentor – And some project ideas here (NEW) / Power.Coders bootcamp (NEW)
- Some more project ideas (that could turn into business ideas) on Y Combinator (NEW)
- https://github.com/Divide-By-0/ideas-for-projects-people-would-use
- Build a space travel website from a Frontend Mentor design using HTML, CSS and JavaScript.
- https://www.sololearn.com/home + Project ideas + Software ideas that people would use
- The Complete 2023 Web Development Bootcamp By Angela Yu (Full Course Download Lin...

Test your website / web app (NEW)

OK, you've created your very own web application or website, it's live, it's launched, and you'd like to figure out if you need to improve it in any way.

Luckily, there are a bunch of tools that will really help you determine if your website covers all the best practices mentioned in this document and in the broad web standards community. I rated each tool's usefulness with my own subjective ❤️ measure of usefulness, but I recommend testing your site with all of them. **Most of them are 100% free**, just like the rest of this document's resources.

CODE QUALITY

❤️❤️❤️ HTML Validator + CSS Validator

❤️❤️❤️ Dareboost

❤️❤️❤️ Yellow Lab Tools

🤍❤️❤️ i18n Validator + RSS Validator

🤍❤️❤️ DOM Monster (Chrome ext)

🤍❤️❤️ CSS Stats

🤍🤍❤️ .htaccess check

🤍🤍❤️ Sitemap Validator

🤍🤍❤️ Unused CSS check

PERFORMANCE & SPEED

❤️❤️❤️ WebPageTest

❤️❤️❤️ Lighthouse (Chrome ext) / Crux

❤️❤️❤️ Google PageSpeed Insights

🤍❤️❤️ Cloudinary Website Speed Test

🤍❤️❤️ Kraken.io Image Optimizer

🤍❤️❤️ TinyPNG Image Optimizer

🤍❤️❤️ GTMetrix

🤍❤️❤️ Accessify

🤍❤️❤️ HubSpot Website Grader

🤍🤍❤️ Pingdom

🤍🤍❤️ KeyCDN Website Speed Test

🤍🤍❤️ IMNinjas Page Speed

🤍🤍❤️ DotComTools Website Speed

🤍🤍❤️ Sucuri LoadTime Tester

SECURITY & SERVERS

❤️❤️❤️ Mozilla Observatory

❤️❤️❤️ Dataskydd Webbkoll Scanner

🤍❤️❤️ Pentest-Tools.com Free Website Scanner

🤍❤️❤️ Google CSP Evaluator

🤍❤️❤️ CSP Validator

🤍❤️❤️ Probely Security Headers

🤍❤️❤️ Sucuri SiteCheck

🤍❤️❤️ MXToolbox Email Server Checker

🤍❤️❤️ KeyCDN HTTP/2 Test

🤍🤍❤️ BuiltWith

🤍🤍❤️ SPF Record Checker

🤍🤍❤️ SSL Checker

🤍🤍❤️ Google Safe Browsing Check

SEO & SEMANTICS

❤️❤️❤️ Google Search Console

❤️❤️❤️ Pagelocity

❤️❤️❤️ Google Structured Data Search Gallery

❤️❤️❤️ Google Structured Data Tester (+old)

❤️❤️❤️ Ahrefs Free SEO Tools

❤️❤️❤️ Checkbot.io (Chrome ext)

🤍❤️❤️ Google Ads Keywords Planner

🤍❤️❤️ UberSuggest

🤍❤️❤️ SpyFu

🤍❤️❤️ MajesticSEO

🤍❤️❤️ Spotibo SEO Analyzer

🤍❤️❤️ Technical SEO Tools

🤍🤍❤️ Ryte free / Ryte Free Tools

🤍🤍❤️ List of useful Meta Tags

🤍🤍❤️ OpenAdminTools

ACCESSIBILITY

❤️❤️❤️ WebAIM Wave

❤️❤️❤️ Webhint Scanner

🤍❤️❤️ Tota11y (Chrome ext + bookmarklet)

🤍❤️❤️ A11y Project Accessibility Checklist

🤍🤍❤️ PowerMapper Accessibility Scanner

🤍🤍❤️ IBM Accessibility Requirements List

🤍🤍❤️ Textise your site

DESIGN & MOBILE

🤍❤️❤️ UX Checklist

🤍🤍❤️ Google Mobile Friendly Test

CONTENT OPTIMIZATION

❤️❤️❤️ Unbounce Landing Page Analyzer

🤍❤️❤️ WebFX Readability Test

SOCIAL PRESENCE

❤️❤️❤️ BuzzSumo

🤍❤️❤️ Facebook Sharing Debugger

🤍❤️❤️ Twitter Card Validator

🤍❤️❤️ LinkedIn Post Inspector

🤍🤍❤️Favicon Checker

Additional resources

For those of you that have reached this point and still want to know more, **I congratulate you**! That means you really like the Web, development and what it all means, and therefore you deserve to know where to get the best information about how you can become a good front end developer. Here goes:

Book links

If you've gotten this far and have wondered how you can get a hold of the digital books mentioned in this course, please **ask me** how to get the licensed archive (or buy the books!).

Must-follow, general resources

» The EveryMatrix Site Building Workshops & canalul meu RO
A list of recordings we made in the hopes to disseminate some of the technical and non-technical knowledge required to build websites, from design to programming, from architecture to marketing and beyond.

» http://alistapart.com/ - start with this article then this
A List Apart transformed many of us into great front end developers. It's one of the oldest (est. 1997) and most highly appreciated sites offering information for web professionals. It contains in-depth articles in a vast array of areas, ranging from cognitive psychology to design, from HTML techniques to JavaScript programming, from novelties in CSS styling to usability and accessibility issues, and so on. Here's a list of topics, just pick your favorite and be amazed!

» http://www.nngroup.com/
The Nielsen Norman Group is one of the best usability and user research companies in the world, offering regular reports on what makes the Web (not) usable.

» https://developer.mozilla.org/
The Mozilla Developer Network is one of the best sources of information and reference sites when it comes to HTML, CSS and JS. It's your go-to dictionary and basic information repository, use at will.

Other resources

» https://www.smashingmagazine.com/ – Web development magazine
» https://github.com/tuvtran/project-based-learning – A full list of resources for you to learn
» https://css-weekly.com/ – A weekly newsletter on CSS techniques and news
» https://webdesignledger.com/ – A resources and articles list
» https://offlinefirst.org/ – A very good list of articles related to making websites resilient
» https://www.uie.com/ – A user experience and design resource list
» https://responsivewebdesign.com/podcast/ – A (finished) podcast about RWD
» https://moz.com/beginners-guide-to-seo – An SEO primer + The Ahrefs Guide (great SEO insight)
» https://research.hackerrank.com/developer-skills/2020/ – What skills are most useful?
» https://practicaltypography.com/typography-in-ten-minutes.html – Typography primer
» https://frontendfoc.us/ – THE best newsletter with front end news and articles + bonus (new)
» https://frontendmasters.com/courses/web-development-v2/ - Full development tutorial
» https://www.youtube.com/watch?v=0pThnRneDjw – overview of everything you need to learn
» A full history of the Web, if you're curious. Plus, a whole list of resources that are free for devs.
» https://thegymnasium.com/courses – A wide array of free courses
» https://hawkticehurst.com/mega-full-stack-resource-guide/ - Another guide similar to this.
» https://icodethis.com/ daily challenges (NEW, not free)
https://tiny-helpers.dev/
https://wesztyweb.com/the-definitive-guide-to-create-a-technically-perfect-website/

Additional tools for your day to day work (NEW)

Checklists

» Front End checklist

@TODO (very soon)
- Photoshop to HTML/CSS: Avocode/Zeplin (+ tutoriale/exemple)
- Extensii de Chrome (WhatFont, Measure, Rulers, ColorPickers, etc)
- Plugin-uri pentru editoare (Sublime/Atom, VS Code, WebStorm/PHPStorm)

Chapters to be continued, but scroll down some more for extra content!

@TODO Rearrange like this:

https://excessive-preface-69c.notion.site/HTML-CSS-28bc6ac713eb41af94e4324bb24db450
https://excessive-preface-69c.notion.site/JavaScript-e3921343cb3944a4b4fa8235f3ca1375
https://drive.google.com/drive/folders/1Z30-9EO6B0oEuFHYMKUzzzEO6p82-dYU
https://drive.google.com/drive/folders/1pIxb-KlTzpMuuRroxt5bneqdq-zldP0F

@TODO Integrate / unpack

https://hawkticehurst.com/mega-full-stack-resource-guide/
https://andreasbm.github.io/web-skills/
https://roadmap.sh/frontend
https://github.com/ossu/computer-science
AMAZING playlist with learning paths
https://www.youtube.com/playlist?list=PLz8Iz-Fnk_eTpvd49Sa77NiF8Uqq5Iykx
https://github.com/aycanogut/front-end-resources
https://pauljerimy.com/it-career-roadmap/ /
https://github.com/thedaviddias/Resources-Front-End-Beginner
https://github.com/msaaddev/frontend-resources
https://www.frontendmentor.io/resources
https://frontendresource.com/ / LinkedIn list / Reddit list (ro) /
https://inventory.raw.pm/overview.html + cybersec resources +
https://github.com/husnainfareed/awesome-ethical-hacking-resources +
https://github.com/vavkamil/awesome-vulnerable-apps +
https://github.com/Hack-with-Github/Awesome-Hacking
https://github.com/topics/awesome / https://github.com/prettydiff/a11y-tools
https://frontendchecklist.io/ + https://github.com/thedaviddias/Front-End-Checklist /
https://www.internetmarketingninjas.com/tools/ /
https://www.google.com/webmasters/markup-helper/u/0/ /
https://www.onthemap.com/seo-browser/ / https://www.woorank.com/ /
https://www.phpied.com/3po/ / http://www.responsivepx.com/ / https://browsershots.org/ /
https://www.sitespeed.io/ // https://www.pandaneer.com/top-front-end-development-resources /
https://bundlephobia.com/ / https://youmightnotneed.com/

Feelin' advanced, are we? Try some JavaScript!

If you've reached this far into the tutorial, you must REALLY want something more on the table, to keep things interesting and to keep those neurons firing up with new information. I commend you for the curiosity and the drive to learn more, so here's a well deserved reward. You should really start learning about programming in general, and its two pillars: Algorithmics and Best Practices (NEW). You can find out more about algorithms (in Romanian) on this excellent site: InfoArena (NEW), PBInfo, Blind75, LeetCode (NEW) and HackerRank (NEW) with gamified ways to test your algorithms.

Crash course in ~~brain surgery~~ JavaScript

- LearnProgramming (NEW) / FreeCodeCamp ▶ Learn JavaScript - Full Course for Beginners
- JavaScript 30: build 30 things in 30 days with 30 JS tutorials / https://www.learn-js.org/
- The modern JavaScript Tutorial at JavaScript.info + the MDN tutorials
- The Odin Project: JavaScript (NEW) & JS the right way & www.learnjavascript.online
- How to code in Javascript at DigitalOcean (stolen from this Medium article)

JavaScript in depth – ⭐Another dedicated document⭐

First, remember the MDN docs. There are plenty of really good resources that provide fantastic learning experiences and examples in this field, since it's one of the very popular languages to learn nowadays. Our own acadEMy on JavaScript has the full curriculum here. We'll continue with a list of resources based on this fantastic GitHub list and other findings:

- You Don't Know JS / WTF JS?! / ES6 Feats
- Frontend Masters courses by Kyle Simpson / @mpjme's stream + DOM
- Learning JavaScript Design Patterns
- JavaScript The Good Parts
- Eloquent JavaScript by Marijn Haverbeke
- Effective JavaScript by David Herman
- Learning Advanced JavaScript
- JavaScript Allonge, the "Six" Edition
- Exploring JS / JS Algorithms (NEW)
- JavaScript Objects and Prototypes
- Composable Functional JavaScript
- Functional programming in JavaScript
- Secrets of the JavaScript Ninja by John Resig, Bear Bibeault, and Josip Maras
- The Principles of OOP JavaScript
- AST Explorer / CodeWars / React + TS res
- JavaScript: Understanding the Weird Parts + Clean Code JS (NEW)
- Advanced JavaScript / Concept Glossary
- Egghead.IO tutorials on JS and derived languages, or on actual frameworks, libraries, etc / Modern JS Cheatsheet
- Dan Abramov's GitHub for React
- Vue.JS's startup guide | TS tutorial
- React (new) / Service Workies
- Vanilla JS DOM Manipulation / JS.com
- Învăț eu, înveți și tu (Ro) + OS React
- FreeCodeCamp - JS algorithms + data str
- FreeCodeCamp - React, Redux, etc
- https://www.jsv9000.app/
- https://www.javascripttutorial.net/
- https://www.learn-js.org/en/
- JavaScript Foundations @ Gymnasium
- EdX JavaScript Introduction
- **JS is sexy - how to learn JS properly**
- Eloquent Javascript (free book)
- MDN introduction to JS
- Superhero JS resource index
- YouTube vids: 0, 1, 2, 3 + channel
- The right way to learn JavaScript
- AirBNB JavaScript Style guide
- Explore DOM events
- The Odin Project: Node.JS
- https://www.programiz.com/
- https://marplo.net/javascript (Română)
- JS games crash course
- https://lab.reaal.me/jsrobot/
- https://play.elevatorsaga.com/
- https://screeps.com/ / NodeSchool
- JS Cheat Sheets / Deep JavaScript
- JS Promise Guide / Wes Bos
- Learn TypeScript for Free (Scrimba)
- Algorithms in JS: 1, 2, 3, 4

Everybody loves frameworks: VUE.js (NEW)

I get it, you're fed up with generic stuff and want to get on the trend everybody's in and start learning a popular JavaScript framework that will get you ahead in the job race and also be fun along the way. My personal recommendation is not React, nor Angular, but Vue. Why? Because it just makes more sense, workflow-wise, it has server side rendering as a first class citizen allowing you to serve static files to the browser then hydrate them on demand with the JavaScript front end scripts, and keep the JS and CSS at a minimum with Nuxt and Tailwind. Tailwind is opinionated and I'm not sure I agree with it completely just yet, but it does have super obvious benefits compared to Bootstrap & co. Plus, Stefan (who gathered the materials below and whom I trust) likes it very much.

But before we get into it...

First and foremost

These two e-books will root you in the necessary ideas for a healthy development career:

1. The lean web by Chris Ferdinandi (bonus: watch this video)
2. Resilient web design by Jeremy Keith
3. This video by Briefs

...just so you don't treat every web project you see from now on as one you would solve with Vue.js.

So here goes:

Vue.js Docs

1. Guide
2. Style Guide
3. Cookbook

Nuxt.js Docs

1. Guide
2. Guide v2 (Beta)
3. API
4. Examples
5. FAQ - Common development, configuration and deployment questions

Courses

1. VueMastery Intro to Vue 3 & others@V3
2. Vue3 Time Blocking App
3. Laracasts: Learn Vue 2: Step By Step
4. Vue.js Fundamentals - VueSchool.io
5. Vue.js Components Fundamentals - VueSchool.io
6. Nuxt.js Fundamentals - VueSchool.io
7. ALL courses from VueMastery.com

Node.js

1. Node.js Best Practices

TailwindCSS

1. Docs
2. Component Examples
3. Screencasts: Designing with Tailwind CSS
4. Collection - Design with Tailwind CSS Masterclass on @eggheadio
5. Tailwind CSS Custom Forms
6. CSS to Tailwind

Enjoy your damn framework now! 😝 I still think you don't need it that much unless for very large projects with dozens of coordinated people working to build the same platform.

Finally, a comparison of frameworks and some recommendations of technologies.

Getting Hired

» The Odin Project: Getting Hired

https://www.reddit.com/r/jobs/comments/8hs6xc/part_deux_of_the_top_post_of_all_time_on_rjobs_im/

» 36 types of jobs in IT (in Romanian) from my YouTube channel

https://www.rezi.ai/

» Everything you need to know about making your CV (in Romanian) from my YouTube

» Prepare for your technical interview by practicing on Pramp

» FreeCodeCamp - Coding interview preparation + ▶ How to Prepare for Technical Interviews

» https://github.com/jwasham/coding-interview-university +

https://github.com/yangshun/tech-interview-handbook

https://github.com/lydiahallie/javascript-questions

Tech Interview Handbook

Job Interview Questions, Answers, and Tips to Prepare

Front-End interview questions

https://github.com/h5bp/Front-end-Developer-Interview-Questions

Technical Interviews

Ten Rules for Negotiating a Job Offer

How not to bomb your offer negotiation

Using GitHub to Build a Portfolio (2020 Ultimate Guide)

How to Rock the Coding Interview – Tips That Helped Me Land Job Offers from Google, Airbnb, and Dropbox

https://grow.google/certificates/interview-warmup/

https://www.frontendinterviewhandbook.com/

https://technicalinterviews.dev/

https://addyosmani.com/blog/software-engineering-soft-parts/

https://posthog.com/blog/what-to-ask-in-interviews

https://fearlesssalarynegotiation.com/articles/

https://www.thebalancecareers.com/job-interview-questions-and-answers-2061204

https://www.techinterviewhandbook.org/

https://layoffs.fyi/

https://www.realworkfromanywhere.com/

https://www.bardeen.ai/jobhub

https://refocus.me/ph/

https://www.reddit.com/r/EngineeringResumes/wiki/index/

https://www.pandaneer.com/the-remote-developers-guide-to-writing-a-resume

For recruiters

https://www.youtube.com/playlist?list=PLfTqvIG4roBpruaYAsLJvQMnKuVqA4Glg (Romanian)

https://www.viorelmocanu.ro/greselile-recrutorilor/ (Romanian)

https://www.wearehr.ro/ (Romanian)

https://devskiller.com/become-recruiter-tech/

https://stackify.com/what-is-sdlc/

https://www.youtube.com/watch?v=qIMvacpagfw

https://www.youtube.com/watch?v=AOQHe3Si-VA

https://www.youtube.com/watch?v=-YepJsv0ing

https://www.youtube.com/watch?v=hxxw9VhRyik

Being a better programmer

What should you learn first? What Programming Language Should I Learn First in 2022? [Solved]
Start with this and don't despair: https://norvig.com/21-days.html :)
And then with https://teachyourselfcs.com/
▶ The BEST Coding Interview Roadmap in 2023 (free)
https://github.com/ossu/computer-science
Some 🇷🇴 Romanian 💰 non-free 📖 books: https://ebooks.infobits.ro/
https://astro.build/blog/2023-web-framework-performance-report/
https://cs50.harvard.edu/x/2023/
https://missing.csail.mit.edu/
https://css-tricks.com/technical-writing-for-developers/
https://realtoughcandy.com/learn-to-code-for-free/
https://code.org/
https://www.codecademy.com/
https://coderbyte.com/
https://edabit.com/
https://www.educative.io/explore
https://www.edx.org/
https://egghead.io/learn
https://dash.generalassemb.ly/
https://goalkicker.com/
https://thegymnasium.com/courses
https://hackr.io/
https://www.khanacademy.org/
https://launchschool.com/books
https://docs.microsoft.com/en-us/training/
https://ocw.mit.edu/
https://github.com/ossu
https://phptherightway.com/
https://www.digitalocean.com/community
https://scratch.mit.edu/
https://www.sololearn.com/home
https://www.theodinproject.com/
https://juniormind.com/ro/
https://teachyourselfcs.com/
https://exercism.org/
https://free-for.dev/
CS50 Lectures 2020 - YouTube + https://www.youtube.com/@cs50/playlists
Learn about Design Patterns from https://refactoring.guru/ and
▶ 10 Design Patterns Explained in 10 Minutes
» The ultimate computer science university knowledge repository: CS50 by Harvard + YouTube
» LeetCode / CodeWars (including Katas) / HackerRank (including certifications and practices) /
https://codecombat.com/
» CheckIO coding games (TypeScript, Python)
» Elevator Saga (JavaScript) + Untrusted (JavaScript) + Screeps (a Steam game, MMO sandbox)
» TopCoder (competitive programming) / CodinGame (learn while playing)
» https://cssbattle.dev/
» OOP in: JAVA, more JAVA, Python, C#, JavaScript. Generic OOP knowledge and a bunch more courses
» Solid principles of OOP
https://djangodeployment.readthedocs.io/en/latest/01-getting-started.html
» Cursuri IT by eJobs (free!)

» AlgoExpert (paid)
» InfoArena (Romanian)
» https://www.programiz.com/
» https://app.codility.com/programmers/lessons/1-iterations/
» https://www.geeksforgeeks.org/
» http://codeforces.com/
» https://open.kattis.com/
» https://projecteuler.net/
» Pramp (practice interviewing)
» The Odin Project
» Math Pages (mathematics theory and exercises)
https://www.dropbox.com/s/xij72qwp72okem0/fxtbook.pdf?dl=1
https://www.geeksforgeeks.org/sleep-sort-king-laziness-sorting-sleeping/
https://github.com/cjbt/Free-Algorithm-Books/tree/master

» Regular Expressions matching can be simple and fast
» Theory of computation: regular languages, context-free languages, Turing, decidability, etc.
» Data structures for text sequences
» https://db-engines.com/en/ranking
» Build better websites with Google Dev Tools
» Machine Learning course from Stanford and from Google at https://ai.google/education/
https://machinelearningmastery.com/ + http://introtodeeplearning.com/ +
https://mml-book.github.io/
» Programming Paradigms by Stanford
» A single place to store all the technical documentation - DevDocs
» Learn with Google - from machine learning to widgets, from design to apps, chatbots, etc.
» Cheat sheets for everything https://www.codecademy.com/resources/cheatsheets/all
» The Cloud Resume Challenge + related article + presentation article
https://leetcode.com/discuss/general-discussion/460599/blind-75-leetcode-questions
https://www.cybrary.it/info/freeittraining/

https://developer.android.com/courses#for-new-programmers
https://www.appypie.com/learn-ios-development-how-to
https://developer.apple.com/tutorials/SwiftUI

▶ Tutorial JavaScript pentru începători | Tutorial Web Development de la 0 (RO)
▶ Learn JavaScript - Full Course for Beginners
https://www.w3resource.com/c-programming-exercises/

https://developers.google.com/solutions/content-driven

https://www.codelita.com/
https://www.codium.ai/
https://cursor.sh/

https://nextui.org/

https://bejamas.io/blog/practical-guide-to-astro-js-framework/

https://www.bitdegree.org/course/coding-for-beginners-space-doggos

https://learn.coderfoundry.com/course-catalog https://timroughgarden.org/videos.html

https://www.linkedin.com/feed/update/urn:li:activity:7124747846431436800/
https://intopia.digital/wp-content/uploads/2023/10/Intopia-WCAG-2.2-Map-Portrait-Mode.pdf

https://hackernoon.com/the-system-design-cheat-sheet-api-styles-rest-graphql-websocket-webhook-rpcgrpc-soap

https://iq.opengenus.org/100-interview-problems/

https://commandlinepoweruser.com/
http://conqueringthecommandline.com/book
https://www.learnenough.com/command-line-tutorial

https://app.codecrafters.io/catalog

https://www.thinkful.com/
https://www.htmldog.com/guides/

https://natureofcode.com/
http://learnyouahaskell.com/

https://craftinginterpreters.com/
https://www.interdb.jp/pg/
https://jeffe.cs.illinois.edu/teaching/algorithms/
https://www.coursera.org/specializations/algorithms

http://littleosbook.github.io/

https://www.youtube.com/@ChromeDevs
https://github.com/cjbt/Free-Algorithm-Books/tree/master

https://neetcode.io/
https://www.smartcurs.ro/ (RO)

https://github.com/EbookFoundation/free-programming-books
https://github.com/jwasham/coding-interview-university
https://github.com/sindresorhus/awesome
https://github.com/kamranahmedse/developer-roadmap
https://github.com/trekhleb/javascript-algorithms
https://github.com/goldbergyoni/nodebestpractices
https://github.com/yangshun/tech-interview-handbook
https://github.com/practical-tutorials/project-based-learning
https://github.com/30-seconds/30-seconds-of-code
https://github.com/ripienaar/free-for-dev
https://github.com/lydiahallie/javascript-questions
https://github.com/bradtraversy/design-resources-for-developers
https://github.com/florinpop17/app-ideas
https://github.com/codecrafters-io/build-your-own-x
https://github.com/gothinkster/realworld
https://github.com/public-apis/public-apis
https://github.com/donnemartin/system-design-primer
https://github.com/jlevy/the-art-of-command-line

https://github.com/tensorflow/tensorflow
https://github.com/trimstray/the-book-of-secret-knowledge

For kids:
https://www.coderkids.com/blog/top-10-free-coding-programs-for-kids
https://coderkids.teachable.com/p/welcome-to-scratch
https://www.coderkids.com/blog/scratchjr-projects-for-kids
http://www.crunchzilla.com/
https://scratch.mit.edu/
https://code.org/
https://www.codemonkey.com/
https://www.khanacademy.org/
https://lightbot.com/
https://codecombat.com/
https://blockly.games/
https://www.stencyl.com/
https://www.youtube.com/watch?v=__j4Lj-BT00g
https://www.youtube.com/watch?v=g1J4181W8ss
https://bit.ly/ace-coding
https://www.tynker.com/
https://www.kodable.com/
https://www.codecamp.com.au/blog/8-best-programming-games-for-kids
https://www.codewizardshq.com/coding-websites-for-kids/
https://www.computerscience.org/resources/kids-introduction-to-coding/
https://www.coderkids.com/blog/top-10-free-coding-programs-for-kids
https://www.youtube.com/playlist?list=PLaJiOUIMDSh5TtO1kedWRScDHn7r0cR7x (Romanian)
https://www.miciideveloperi.ro/curs-gratuit-programare-pentru-copii-bucuresti (Romanian, paid)
A few Romanian high school C/C++ books: number 1, number 2, number 3, number 4
https://www.pbinfo.ro/articole/5547/informatica-clasa-a-ix-a +
https://www.pbinfo.ro/probleme-categorii/9 + https://www.infoarena.ro/arhiva-educationala
(Romanian)
https://www.infoarena.ro/links
https://scoaladevalori.ro/kit-de-angajabilitate-pentru-tineri/ (Romanian)
https://www.lego.com/ro-ro/product/boost-creative-toolbox-17101 =>
https://www.lego.com/ro-ro/themes/mindstorms/ev3
https://www.shelly.com/en-ro/products/product-overview#unfiltered
https://circuitmess.com/products/nibble-diy-game-console
https://www.nextlab.tech/ + https://autovortex.ro/ + https://iobotics.ro/ (RO)
https://www.wroromania.ro/ (RO)
https://hourofcode.com/ro (RO)
https://www.logiscool.com/ro/ (RI)
https://thepihut.com/products/arduino-starter-kit
https://www.crunchlabs.com/
https://ocw.cs.pub.ro/courses/

https://web.dev/learn/privacy/
https://web.dev/learn/forms/

Others (bulk):
https://github.com/EbookFoundation/free-programming-books
https://github.com/jwasham/coding-interview-university
https://github.com/sindresorhus/awesome

https://github.com/kamranahmedse/developer-roadmap
https://github.com/donnemartin/system-design-primer

https://leonnoel.com/100devs/ + https://www.twitch.tv/learnwithleon/videos

https://www.olympiad.org.uk/problems.html
https://ioinformatics.org/page/contests/10
https://cp-algorithms.com/
https://codeforces.com/blog/entry/55219
https://codeforces.com/blog/entry/43256
https://codeforces.com/blog/entry/68138
https://codeforces.com/blog/entry/62690
https://infoarena.ro/downloads
https://www.pbinfo.ro/ + https://solinfo.ro/
https://infoarena.ro/arhiva-educationala

https://go101.org/
https://www.udemy.com/course/backend-master-class-golang-postgresql-kubernetes/

https://www.mooc.fi/en/
https://www.tiobe.com/tiobe-index/
https://www.infoq.com/presentations/little-usl-scalability-performance/ /
https://speakerdeck.com/kavya719/applied-performance-theory?slide=11
T-minus 3, 2, 1: Future-proofing production systems - Kavya Joshi (Samsara)
https://ossu.firebaseapp.com/#/curriculum
https://www.sololearn.com/home
HTML and CSS Tutorials - YouTube
Programare pentru Incepatori: Tutoriale in Romana | Programare pentru Incepatori | Limbaje de Programare - YouTube (Romanian)
Full Stack Web Development in the Cloud Course - Svelte, Postgres, Vercel, Gitpod
https://www.youtube.com/playlist?list=PL0eyrZgxdwhwNC5ppZo_dYGVjerQY3xYU
https://www.coursera.org/courses?query=full%20stack%20web%20development
https://fsharpforfunandprofit.com/fppatterns/
https://github.com/ziishaned/learn-regex
https://qmo.io/blog/ultimate-guide-to-api-design
https://hpbn.co/
https://github.com/EbookFoundation/free-programming-books
https://github.com/practical-tutorials/project-based-learning
https://programming-idioms.org/about#about-block-all-idioms
https://github.com/sdmg15/Best-websites-a-programmer-should-visit
https://github.com/minimaxir/big-list-of-naughty-strings
https://github.com/JanVanRyswyck/awesome-talks
https://github.com/trimstray/the-book-of-secret-knowledge
https://github.com/sindresorhus/awesome
https://github.com/lauragift21/awesome-learning-resources
https://github.com/ripienaar/free-for-dev
https://github.com/30-seconds/30-seconds-of-code
https://github.com/public-apis/public-apis
https://open.appacademy.io/
Spectrum programming circa 1980
A Compiler Writing Journey
Introduction to monads with Java code examples
Category Theory Illustrated

https://eev.ee/blog/2015/09/12/dark-corners-of-unicode/
https://manishearth.github.io/blog/2017/01/14/stop-ascribing-meaning-to-unicode-code-points/
A Hitchhiker's Guide to Reinventing a Prolog Machine
A History of APL in 50 Functions
Linear types can change the world!
The pitfalls of protocol design - Attempting to write a formally verified PDF parser
Haskell for Imperative Programmers
Crafting Interpreters
LLVM compiler infrastructure
Regular Expression Matching Can Be Simple And Fast (but is slow in Java, Perl, PHP, Python, Ruby, ...)
Nano-coroutines to the Rescue! (Using Coroutines TS, of Course)
Web Browser Engineering by Pavel Panchekha & Chris Harrelson
The MDN Front End Development Learning Index
Learn Rust With Entirely Too Many Linked Lists
Crust of Rust: Channels
The Rust Programming Language
Rust Memory Container Cheat-sheet
The Rustonomicon
A Firehose of Rust, for busy people who know some C++
Probability Cheat Sheet
MIT Course: Theory of computation
MIT Course: Electrical Engineering and Computer Science
List of data structures
Exposing Float Point + What Every Programmer Should Know About Floating-Point Arithmetic
What Every Computer Scientist Should Know About Floating-Point Arithmetic
List of algorithms / Quick Search Algorithm
Cryptography is not magic
https://github.com/public-apis/public-apis
▶ Web Development Full Course (Front End) | HTML,CSS,JavaScript
https://fullstackopen.com/en/
https://www.youtube.com/playlist?list=PLYdpEVB86eG6IDpm0siSVxY7He6gnJs_E (Romanian)
https://css-tricks.com/a-complete-beginners-guide-to-npm/
https://transform.tools/json-to-typescript
Learn TypeScript: https://app.quicktype.io/?l=ts

https://egghead.io/q/react
https://codewithmosh.com/p/mastering-react
https://www.theodinproject.com/paths/full-stack-javascript/courses/react-new

CS61A - Structure and Interpretation of Computer Programs (introductory cs course at berkeley, hard af but you will learn a lot if you keep at it)

CS61B - Data Structures (data structure course at bekeley. Programs interact with data, you will learn how with this course. An important course on this guide)

CS61C - Great Ideas in Computer Architecture (Broken archives, no idea when it will be fixed, will update post when it is. Teaches the inner working of a computer so that you can write optimized programs)

https://paperswelove.org/
https://grow.google/intl/uk/
https://grow.google/intl/ALL_au/learn-skills/
https://developers.google.com/certification

https://www.youtube.com/@elithecomputerguy
https://www.youtube.com/@TechWorldwithNana
https://www.netacad.com/node/1278
https://www.coursera.org/professional-certificates/google-business-intelligence
https://www.coursera.org/professional-certificates/google-data-analytics
https://www.isc2.org/landing/CC-bundles
https://ine.com/ (not free)
https://pll.harvard.edu/catalog/free
https://www.youtube.com/@thenewboston
https://www.youtube.com/@RahulNath
https://www.youtube.com/@MilanJovanovicTech
https://learn.microsoft.com/en-us/training/browse/
https://learn.mongodb.com/
https://learnflakes.net/
https://github.com/papers-we-love/papers-we-love
BOOKS: https://drive.google.com/drive/folders/1Z30-9EO6BooEuFHYMKUzzzEO6p82-dYU
https://www.refactornow.dev/
https://www.joyofreact.com/ (paid)

[🇷🇴] Reddit /r/programare Wiki

https://www.reddit.com/r/programare/wiki/index/

General

- Listă cu Cărți Gratis din Computer Science - foarte multe cărți bune, multe din ele chiar foarte avansate, include foarte multe resurse pentru matematică
- Project Based Learning - foarte multe proiecte pentru diferite limbaje, menite să fie o sursă bună pentru a le învăța
- Distributed Systems for Fun and Profit - introducere foarte interesantă în sisteme distribuite
- Learn X in Y Minutes - foarte multe introduceri pe scurt în diverse limbaje de programare sau biblioteci/tehnologii
- build-your-own-x - multe resurse în stil 'do it yourself'
- Cursuri și laboratoare de la UPB
- Cursuri MIT - nu doar acest link, MIT are foarte multe cursuri de calitate care acoperă tot felul de subiecte
- CS50 - introducere in computer science
- IoT For Beginners - cursuri practice despre IoT de la Microsoft
- Theory of Computation - curs despre Turing machines, complexity theory, interactive proof systems
- Exposing Floating Point - cum funcționează numerele cu virgulă
- Cursurile de la MIT de Computer Science & Electrical Engineering
- Automata, Computability, Complexity Theory and Applications - se prezintă aici automate, mașini Turing, complexity theory, teoreme relevante
- Structure And Interpretation Of Computer Programs - o introducere (clasică) foarte bună în programare

Algoritmică

- Arhiva educațională de pe InfoArena
- CP Algorithms - cu ceva algoritmi în plus față de link-ul de mai sus

Teorie

- The Memory Models That Underline Programming Languages - ce paradigme folosesc anumite limbaje de programare
- (Carte) Types and Programming Languages - cartea pentru a învăța PL Theory

- (Carte) Compilers: Principles, Techniques and Tools - Dragon Book
- (Carte) Engineering a Compiler - similară cu Dragon Book
- Build You Own Lisp - implementarea unui lisp în C
- Crafting Interpreters - implementează un interpretor și include și partea de generare de bytecode
- A Hitchhiker's Guide to Reinventing a Prolog Machine - cum funcționează prolog

Javascript

- The Modern Javascript Tutorial - foarte multe lucruri cuprinse aici
- Javascript Tutorials - Mozilla Developer Network - pas cu pas, de la începător la avansat
- You Don't Know JS - poate nu chiar pentru început dar tot merită citit
- Deep Javascript - prezintă multe detalii mai 'low-level' din limbaj

Java

- Baeldung - în special la "Java Series", deși sunt mai multe lucruri acolo(de exemplu Spring)
    - Back to basics
    - Java Collections
    - Java Streams
- MOOC.fi - curs gratis destul de complet, include și exerciții la fiecare capitol
- A categorized list of all Java and JVM features since JDK 8 to 16 - chestii mai noi din Java

Python

- The Python Tutorial - bun pentru familiarizarea cu diverse features din limbaj
- Practical Python Programming - un curs bine structurat, ușor de înțeles și cu exerciții

C

- (Carte) The C Programming Language - poate una din cele mai bune cărți de programare scrise vreodată
- Modern C and What We Can Learn From It - chiar dacă cartea de mai sus este excelentă, acolo nu este chiar C modern, aici sunt prezentate ceva idei mai noi din limbaj, un workflow mai actualizat
- Modern C - autorul este editor al standardului C, deci este clar că știe ce zice
- (Carte) The Standard C Library - te învață cum să implementezi libc-ul, destul de drăguț că tipul care a scris cartea a fost și parte din comitetul de standardizare ANSI C deci explică și unele design decisions
- Resurse din #C de pe Freenode - multe resurse bune pentru tot felul de chestii în C

C++

- learncpp - actualizat, modern, învață practici bune
- C++ Annotations - actualizat relativ des(chiar dacă site-ul nu pare), învață practici moderne
- Stop Teaching C - titlul este puțin clickbait, nu se referă la "C este antic și inutil" ci face referire la tendința unor profesori de a preda C++ ca și cum ar preda C, fără să țină cont de ce are C++ în plus, foarte util videoclipul mai ales dacă ai învățat C++ doar prin liceu
- 105 STL Algorithms in Less Than an Hour - prezintă cam tot ce este prin <algorithm> într-un mod foarte atractiv
- cppcon - de aici sunt și videoclipurile puse anterior. Chiar dacă majoritatea videoclipurilor nu sunt pentru începători, acolo sunt foarte multe videoclipuri interesante(unele nu neapărat legate de C++), poate vedeți lucruri care vă atrag
- (Carte) Effective Modern C++ - în general tot ce este de Scott Meyers merită citit/văzut
- (Carte) C++ Primer - sursă bună pentru modern C++
- cppreference - pentru oricând aveți nevoie să căutați ceva din limbaj
- (Carte) C++ Best Practices - poate nu neapărat pentu început dar este o carte foarte practică
- C++ Weekly - de la același autor ca al cărții de mai sus, se ating și subiecte fundamentale dar și mai avansate, sunt videoclipuri de câteva minute fiecare în general, dar foarte utile

- cpp_starter_project - template modern pentru proiecte în C++, include package management, testing, fuzzing, coverage, documentație etc.
- C++ Standard Draft - nu este pentru început dar dacă auziți de "Standardul C++" să știți că la asta se referă, aici este un draft, deci nu varianta finală(aceea este platită), dar este actualizat mereu

Rust

- The Rust Programming Language - introducerea standard, foarte bine scrisă
- A Half Hour to Learn Rust - prezintă pas cu pas fundamentele limbajului, poate nu chiar într-o jumătate de oră dar rămâne o sursă bună
- Learn Rust With Entirely Too Many Linked Lists - prezintă Rust implementând liste simplu și dublu înlănțuite
- Crust of Rust - multe videoclipuri foarte interesante ce prezintă implementări pentru diferite chestii din limbaj
- Rust by Example - titlul spune tot
- Wrapper Types in Rust: Choose Your Guarantees - ce înseamnă Box<T>, Rc<T>, Arc<T>, Cell<T>, RefCell<T>, Mutex<T>, RwLock<T>

Go

- Go Tutorials - tutorialele oficiale pentru Go
- Go by Example - bucăți de cod ușor de înțeles pentru diverse aspecte din go
- Practical Go Lessons - include și un capitol despre cum se face profiling
- Efective Go - diverse concepte din limbaj explicate, cu exemple

Haskell

Limbaj de programare pur funcțional

- Learn You A Haskell For Great Good - are ca audiență pe cei care au puțină experiență cu limbaje imperative dar este foarte beginner-friendly
- 99 Haskell Problems - învățând haskell prin rezolvarea unor probleme mici
- Learn Haskell By Building a Blog Generator - o carte online care predă haskell 'hands-on', construind un parser pentru un markup custom, generând HTML

OCaml

Limbaj de programare funcțional dar care permite și programare imperativă

- OCaml Tutorials
- OCaml Books - multe din ele gratis, unele plătite

Prolog

Limbaj de programare declarativ având la bază logica de ordin I

- The Power of Prolog - introducere modernă în prolog
- Learn Prolog Now! - accesibilă și sub formă de carte aici
- 99 Prolog Problems - învățând prolog prin rezolvarea unor probleme mici
- Guide to Prolog Programming - include și exemple folositoare, de exemplu algoritmi de sortare sau algoritmi pentru grafuri

Forth

- Starting FORTH - tutorialul clasic Forth
- Thinking Forth - alt clasic

Erlang

- Learn You Some Erlang For Great Good - tutorial intuitiv pentru Erlang

R

- Advanced R - arată cum funcționează R(și de ce) din perspectiva altor limbaje

Web Development

- The Odin Project - un curs excelent, foarte bine structurat, ideal pentru început
- Learn Web Development - Mozilla Developer Network - introducere de la 0
- Web Dev For Beginners - învață prin a face lucruri practice, are și întrebări și challenge-uri pentru fiecare capitol
- Vanilla Web Projects - mici proiecte care nu se folosesc de niciun framework
- Learn CSS - tutorial 'in-depth' despre CSS
- CSS Tricks Guides - de asemenea multe tutoriale 'in-depth' despre flex, grid și multe altele din CSS

Hardware/Sisteme de Operare/Operating Systems

- What Every Programmer Should Know About Memory - poate chiar mai mult decât strictul necesar dar merită citit
- What Every Programmer Should Know About Floating-Point Arithmetic - prezintă cum sunt reprezentate numerele cu virgulă
- All About Circuits - titlul spune tot
- OsDev - foarte multe resurse despre cum s-ar implementa un sistem de operare
- Implementing an OS in Rust - curs în care se creează un sistem de operare simplu în Rust
- The Embedded Rust Book - nu numai pentru Rust, este o sursă bună pentru embedded în general
- Writing a RISC-V Emulator in Rust - emulator pentru RISC-V, un limbaj assembly
- Making a RISC-V Operating System using Rust - se implementează un sistem de operare în Rust, mai târziu se scrie chiar și un joc pentru el
- Operating Systems Development Series - tutoriale pas cu pas pentru crearea unui sistem de operare
- Operating Systems: From 0 to 1 - cunoștințe necesare pentru a scrie un sistem de operare
- FPGA Tutorial - tutoriale pentru design-ul pentru FPGA-uri
- Designing a RISC-V CPU - Learning Hardware Design as a Software Engineer - introducere în hardware design
- From Nand to Tetris - un curs complet în care se construiește un computer de la 0
- Ben Eater - un canal youtube cu foarte multe videoclipuri pe partea de hardware, există chiar și o serie în care se construiește un CPU pe 8 biți de la 0
- Operating Systems: Three Easy Pieces - carte gratis, detaliată, prezintă multe concepte, poate fi considerată alternativă la 'Dinosaur Book'
- Building a MIPS CPU in Hardcaml - construirea unui CPU folosind programare funcțională
- (Carte) Computer Architecture: A Quantitative Approach - carte în care se prezintă concepte low-level
- Is Parallel Programming Hard, And, If So, What Can You Do About it? - una din puținele resurse în care se vorbește în același loc de diversele concepte din programarea paralelă/concurentă. Se prezintă inclusiv partea de verificare și detalii de genul memory orderings

Baze de date / Databases

- Modern SQL - tutorial despre SQL modern
- The Theory Of Relational Databases - prezintă teoria din spatele bazelor de date relaționale
- Foundations Of Databases - altă sursă pentru a învăța despre teoria din spatele bazelor de date relaționale
- How Does a Relational Database Work - o introducere foarte detaliată
- https://db-engines.com/en/ranking

Networking

- Beej's Guide to Network Programming - tutorial pentru a folosi socket-uri
- Computer Networking Introduction: Ethernet and IP

- High Performance Browser Networking - prezintă multe concepte fundamentale de networking
- Computer Networking: Principles, Protocols and Practice - o resursă foarte bună despre protocoale și diverse concepte din networking
- Let's Code a TCP/IP Stack - implementare hands-on pentru TCP
- How DNS Works - un tutorial foarte entertaining, scris sub forma unui comic book
- Distributed Systems for Fun and Profit - o introducere în sisteme distribuite
- Paxos vs. Raft: Have We Reached Distributed Consensus on Distributed Consensus? - comparație detaliată între paxos și raft
- Vizualizarea algoritmului raft
- Building a Raft - o implementare pentru raft în Go
- CRDT for Non-Academics - o introducere pentru Conflict-Free-Replicated-Data-Types
- Notes On Theory Of Distributed Systems - un curs riguros despre sisteme distribuite

AI

- Cursul MIT despre AI - pentru a învăța teoria din spate
- Neural Networks from Scratch: An Interactive Guide - ghid interactiv legat de rețele neuronale
- Creating a Chess Engine From Scratch - serie de videoclipuri care implementează un motor de șah folosind algoritmul mini-max cu alpha-beta pruning

Git

- git - cartea oficială, probabil cea mai completă resursă
- Visualizing Git Concepts With D3 - un ghid mai vizual pentru git
- git - the simple guide - operațiile de bază pentru git explicate foarte simplu

Grafică / Graphics

- Making WebGL Dance - nu este nimic specific WebGL, este un videclip foarte bine făcut în care se introduc concepte din grafică
- The Physics of Light and Rendering - de la John Carmack, greu de explicat aici cât de util este videoclipul, trebuie văzut
- Learn OpenGL - tutorial modern pentru OpenGL, prezintă pipeline-ul nou(cu vertex/index buffers, shaders, etc.), chiar dacă OpenGL este învechit tot reprezintă un API bun pentru început, este mult mai ușor de început cu el decât cu ceva ca Vulkan
- Basic 2D Rasterization - arată cum s-ar implementa conceptele fundamentale din grafică, în special 2D(gradients, transparență, blending, anti-aliasing)
- Curs despre Vector Graphics - foarte detaliat, cuprinde practic tot ce înseamnă vector graphics(2D), cuprinde și ceva matematică
- 3D Game Shaders For Beginners - depth of field, normal mapping, SSAO, lighting și altele
- WebGL Fundamentals și WebGL2 Fundamentals - tutoriale moderne despre WebGL(și grafică 3D în general)
- Bulid a simple 2D physics engine for JavaScript games - introduce componentele de bază ale unui physics engine pentru jocuri
- Learn wgpu - wgpu este o bibliotecă care implementează WebGPU, noul API grafic care va fi prezent în browsere
- PBR Book - resursă foarte bună legat de tot ce înseamnă physically-based rendering
- Ray Tracing in One Weekend Series - cărți ușor de înțeles care arată cum se implementează un path tracer
- Tiny Software Renderer - în wiki explică cum se implementează un software renderer
- Scratchapixel - multe lecții legate de grafică, orientate pe ray tracing
- Curves and Surfaces - site interactiv ce prezintă modul de creare a suprafețelor curbate, merită citit orice de pe acest blog
- Marching Squares Visualized - o vizualizare foarte bună pentru algoritmul "Marching Squares/Cubes"
- GJK Algorithm Visualized - algoritmul GJK (collision detection)

- Geometry and Algorithms for CAD - algoritmi din spatele programelor CAD
- Computational Geometry: Algorithms and Applications - foarte bună ca referință

Matematică/Mathematics

- Mathematics For Computer Science - sunt prezentate aici foarte multe teoreme/definiții care au utilitate directă în computer science
- All in One Math Cheatsheet - foarte bună ca referință pentru formule
- Mathpages - multe definiții/demonstrații(și altele) legate de matematică și fizică
- Thirty-three Miniatures: Mathematical and Algorithmic Applications of Linear Algebra - exemple practice de utilizare pentru diverse concepte din algebra liniară
- The Scientist & Engineer's Guide to Digital Signal Processing - o carte foarte 'comprehensive' pentru a învăța DSP
- Classical Logic - articol foarte bun ce introduce logica matematică
- Forall X - o introducere în logica formală
- A Problem Course in Mathematical Logic - un ghid practic pentru logică matematică
- An Introduction To Mathematical Logic - titlul spune tot
- Software Foundations - cărți care prezintă cum matematica ajută la crearea sistemelor reliable
- Certified Programming With Dependent Types - carte practică ce construiește programe cu demonstrații de corectitudine ajutându-se de Coq
- The Joy Of Cryptography - o foarte bună introducere în criptografie, cartea este ușor de digerat, chiar dacă prezintă multe concepte
- Interactive Linear Algebra - un mod foarte fun de a învăța algebră liniară, cu exemple foarte clare și vizuale
- Probability Course & Stat Trek - niște resurse foarte bune pentru a învăța despre probabilități și statistică

Extra

- Ce vrei să știi despre freelancing? - un thread(în creștere) cu diverse informații legate de freelancing, stil Q&A

[🇷🇴] Reddit /r/programare list of influencers

Java

- Miro Cupak - Java
  Twitter: https://twitter.com/mirocupak
- Victor Rentea - Clean coding, Java, Spring
  YouTube: https://www.youtube.com/user/vrentea
- Vlad Mihalcea - JPA, Hibernate, Java, SQL
  Twitter: https://twitter.com/vlad_mihalcea
- Laurentiu Spilca - Java, Spring, Spring Security
  YouTube: https://www.youtube.com/channel/UC0z3MpVGrpSZzClXrYcZBfw
- Ana-Maria Mihalceanu - Java, Microservices
  Twitter: https://twitter.com/ammbra1508
- Josh Long - Spring
  https://www.youtube.com/channel/UC7yfnfvEUlXUIfm8rGLwZdA
- Venkat Subramaniam - JVM Languages
  Twitter: https://twitter.com/venkat_s
- Adam Bien - JavaEE
  YouTube: https://www.youtube.com/user/bienadam
- Sebastian Daschner - JavaEE
  YouTube: https://www.youtube.com/channel/UCG21GE2Go3vkj7mrs675ysA

- Marco Behler - Java, Spring
  YouTube: https://www.youtube.com/channel/UCufT4mqkeAss6qmI0OF5Bzw
- Maciej Walkowiak - Java, Spring
  YouTube: https://www.youtube.com/channel/UCslYinLbZnzzUdG0BMaiDKw
- Jeanne Boyarsky, Scott Selikoff - Java, OCP
  Blog: https://www.selikoff.net/
- https://www.youtube.com/@amigoscode
- https://www.youtube.com/@laurspilca

Kotlin

- Florina Muntenescu - Android, Kotlin
  Twitter: https://twitter.com/FMuntenescu
- Magda Miu - Android, Kotlin
  Twitter: https://twitter.com/MagdaMiu
- Jake Wharton - Android, Java, Kotlin
  Blog: https://jakewharton.com/blog/
- Duncan McGregor https://youtube.com/@RefactoringDuncan

Python

- Anthony Sottile - Python
  YouTube: https://www.youtube.com/channel/UC46xhU1EH7aywEgvA9syS3w Twitch: https://www.twitch.tv/anthonywritescode
- https://www.youtube.com/@ArjanCodes
- https://www.youtube.com/@TechWithTim/featured
- Corey Schafer (Python) https://www.youtube.com/@coreyms
- Marius Ciurea (Python) https://www.youtube.com/@MariusCiurea1

DevOps

- Nana Janashia - Docker, Kubernets, Terraform
  YouTube: https://www.youtube.com/channel/UCdngmbVKX1Tgre699-XLlUA
- Marcel Dempers - Docker, Kubernetes
  YouTube: https://www.youtube.com/c/MarcelDempers
- Bret Fisher - Docker
  YouTube: https://www.youtube.com/channel/UC0NErq0RhP51iXx64ZmyVfg
- Rob Muhlestein - Linux, Bash
  Twitch: https://www.twitch.tv/rwxrob YouTube: https://www.youtube.com/c/rwxrob
- Dave C - DevOps, Linux, Bash, HashiStack - Terraform (he works at HashiCorp)
  YouTube: https://www.youtube.com/c/tutoriaLinux

Cloud

- Stephane Maarek - AWS, Kafka
  YouTube: https://www.youtube.com/user/Nephaste20
- Neil Davis - AWS
  YouTube: https://www.youtube.com/channel/UCZGGwqjk5jfO4vN1SOCJ2ew
- Krishna Gadhiraju - AWS, Google Cloud, DevOps
  YouTube: https://www.youtube.com/c/CloudAdvocate
- Adam Marczak - Azure
  YouTube: https://www.youtube.com/c/Azure4Everyone
- Gwyneth Peña-Siguenza - Azure
  YouTube: https://www.youtube.com/c/MadeByGPS

Security

- Fabian Faessler - Reverse engineering, CTF
  YouTube: https://www.youtube.com/c/LiveOverflowCTF

- John Hammond - Pentesting, CTF, Linux
  YouTube: https://www.youtube.com/user/RootOfTheNull

C++

- Jason Turner - C++
  YouTube: https://www.youtube.com/user/lefticus1
- David Barr (Javidx9) - C++, Game programming
  YouTube: https://www.youtube.com/c/javidx9
- Yan Chernikov - C++, OpenGL, Game engine programming
  YouTube: https://www.youtube.com/c/TheChernoProject

.NET

General resources. Latest news in tech

- dotnet https://www.youtube.com/@dotnet
- visualstudio https://www.youtube.com/@visualstudio

High level videos

- Nick Chapsas https://www.youtube.com/@nickchapsas
- Milan Jovanovic https://www.youtube.com/@MilanJovanovicTech
- CodeAesthetic https://www.youtube.com/@CodeAesthetic
- Dan Patrascu / C# - https://www.youtube.com/@Codewrinkles

Low level videos

- RawCoding https://www.youtube.com/@RawCoding
- Zoran Horvat https://www.youtube.com/@zoran-horvat

Conferences

- NDC https://www.youtube.com/@NDC
- DotNext https://www.youtube.com/@DotNextConf

PHP/Laravel

- https://twitter.com/timacdonald87
- https://twitter.com/christophrumpel
- https://twitter.com/freekmurze
- https://twitter.com/jackmcdade
- https://twitter.com/ericlbarnes
- https://twitter.com/aarondfrancis
- https://twitter.com/Philo01
- https://twitter.com/marcelpociot
- https://twitter.com/taylorotwell
- https://twitter.com/fireship_dev
- https://twitter.com/DThompsonDev
- https://laraveldaily.com/people-to-follow
- Dani Krossing (PHP) https://www.youtube.com/@Dani_Krossing

Golang

- Francesco Campoy - https://www.youtube.com/@JustForFunc

Rust

- Crust of rust (Jon Gjengset) https://www.youtube.com/@jonhoo

Ruby on Rails

- Web-Crunch (Rails) https://www.youtube.com/@Webcrunch

Front End / JavaScript

- Kyle Simpson - JavaScript
  Twitter: https://twitter.com/getify GitHub: https://github.com/getify

- Jeff Delaney - JavaScript, Angular, Google Cloud
  YouTube: https://www.youtube.com/c/AngularFirebase
- Anjana Vakil - JavScript, Programming Languages
  Twitter: https://twitter.com/AnjanaVakil
- Brad Traversy - NodeJs, React
  YouTube: https://www.youtube.com/user/TechGuyWeb
- Maximilian Schwarzmüller - Angular, React
  YouTube: https://www.youtube.com/c/Academind
- Ed - developedbyed - YouTube
- Franks Laboratory https://www.youtube.com/@Frankslaboratory
- Ben Awad https://www.youtube.com/@bawad
- James Q Quick https://www.youtube.com/@JamesQQuick
- Radu Mariescu Istodor https://www.youtube.com/@Radu
- Theo Browne https://www.youtube.com/@t3dotgg
- Kevin Powell https://www.youtube.com/@KevinPowell
- Traversy Media https://www.youtube.com/@TraversyMedia
- Frontend Masters https://www.youtube.com/@FrontendMasters
- Google Chrome Developers https://www.youtube.com/@ChromeDevs
- Wes Bos https://www.youtube.com/@WesBos
- Coding Garden https://www.youtube.com/@CodingGarden
- WebDevCody https://www.youtube.com/@WebDevCody
- Decoded Frontend (a cerut cineva Angular?) https://www.youtube.com/@DecodedFrontend
- Matt Pocock (TypeScript wizard) https://www.youtube.com/@mattpocockuk
- Lee Robinson https://www.youtube.com/@leerob
- JavaScript Mastery https://www.youtube.com/@javascriptmastery
- Jonas Schmedtmann https://www.youtube.com/@jonasschmedtmann
- Code with Ania Kubow https://www.youtube.com/@AniaKubow
- Una Kravets https://www.youtube.com/@UnaKravets
- Florin Pop https://www.youtube.com/@FlorinPop
- Ana Tudor https://www.youtube.com/@anatudor
- Web Dev Simplified https://www.youtube.com/@WebDevSimplified
- JSConf https://www.youtube.com/@jsconf_

Development / General

- Strange Loop Conference https://www.youtube.com/@StrangeLoopConf
- Laravel Daily https://www.youtube.com/@LaravelDaily
- Dave's Garage https://www.youtube.com/@DavesGarage
- Coding Tech https://www.youtube.com/@CodingTech
- Programming with Mosh https://www.youtube.com/@programmingwithmosh
- Keep on coding https://www.youtube.com/@KeepOnCoding
- Derek Banas https://www.youtube.com/@derekbanas
- https://minidump.net/ + https://www.youtube.com/@MilanJovanovicTech/community

Design / UX

- The Futur https://www.youtube.com/@thefutur
- Ștefan Asafti https://www.youtube.com/@librariadedesign
- DesignCourse https://www.youtube.com/@DesignCourse
- Figma https://www.youtube.com/@Figma
- Satori Graphics https://www.youtube.com/@SatoriGraphics
- Gareth David Studio https://www.youtube.com/@GarethDavidStudio
- Dansky https://www.youtube.com/@ForeverDansky
- Jesse Showalter https://www.youtube.com/@JesseShowalter
- John Maeda https://www.youtube.com/@JohnMaedaverse

Cyber Security

- The Cyber Mentor https://www.youtube.com/@TCMSecurityAcademy
- Jack Rhysider https://darknetdiaries.com/ + https://www.youtube.com/@JackRhysider
- John Hammond https://www.youtube.com/@_JohnHammond
- Liron Segev https://www.youtube.com/@LironSegev
- LiveOverflow https://www.youtube.com/@LiveOverflow
- DefCon Conference https://www.youtube.com/@DEFCONConference
- David Bombal https://www.youtube.com/@davidbombal
- HackerSploit https://www.youtube.com/@HackerSploit

Networking

- David Mahler https://www.youtube.com/@DavidMahler
- NetworkChuck https://www.youtube.com/@NetworkChuck

Marketing & SEO

- Ahrefs https://www.youtube.com/@AhrefsCom
- Flow SEO https://www.youtube.com/@flow-seo
- Analytics Mania https://www.youtube.com/@AnalyticsMania
- Wynter https://www.youtube.com/@Wynterio
- Crawling Mondays by Aleyda https://www.youtube.com/@CrawlingMondaysbyAleyda
- Smarters https://www.youtube.com/@smarters.romania
- Louis Grenier Everyone Hates Marketers https://www.youtube.com/@EveryoneHatesMarketers
- Robert Katai https://www.youtube.com/@robykatai
- Brian Dean https://www.youtube.com/@BrianDean
- Neil Patel https://www.youtube.com/@neilpatel

Game Design & Development

- Sebastian Lague https://www.youtube.com/@SebastianLague
- Game Dev Unlocked https://www.youtube.com/@DavidWehleGames
- Game Developers Conference https://www.youtube.com/@Gdconf
- Game Maker's Toolkit https://www.youtube.com/@GMTK
- Grant Abbitt https://www.youtube.com/@grabbitt
- Blender Guru https://www.youtube.com/@blenderguru
- Tim Beaudet https://www.youtube.com/@TimBeaudet
- Brackeys https://www.youtube.com/@Brackeys
- Game Dev Chats https://www.youtube.com/@GameDevChats
- Pontypants https://www.youtube.com/@Pontypants
- Lost Relic Games https://www.youtube.com/@LostRelicGames
- Thomas Brush https://www.youtube.com/@thomasbrush
- Tim Ruswick https://www.youtube.com/@tim-ruswick
- Let's Game it Out https://www.youtube.com/@LetsGameItOut
- The Game Theorists https://www.youtube.com/@GameTheory
- Machinations https://www.youtube.com/@Machinationsio
- Unity https://www.youtube.com/@unity

Startup & strategy

- Y Combinator https://www.youtube.com/@ycombinator
- Lenny's Podcast https://www.youtube.com/@LennysPodcast
- Indie Hackers https://www.youtube.com/@indiehackers9840
- ProductLed https://www.youtube.com/@ProductLed

Work ethics

- Joshua Fluke https://www.youtube.com/@JoshuaFluke1

- Pragmatic Engineer https://www.youtube.com/@mrgergelyorosz
- Hacking Work https://www.youtube.com/@Hacking-Work
- 37 Signals https://www.youtube.com/@basecamp

Diverse / Utile

- Mark Rober https://www.youtube.com/@MarkRober
- Mark Manson https://www.youtube.com/@IAmMarkManson
- Andrew Huberman https://www.youtube.com/@hubermanlab
- Ali Abdaal https://www.youtube.com/@aliabdaal
- Kurzgesagt https://www.youtube.com/@kurzgesagt
- MindArchitect https://www.youtube.com/@MindArchitect
- Jordan B Peterson https://www.youtube.com/@JordanBPeterson

Then specialize for whatever you like, I suggest these

Full Stack Open (web development)
15-388 A - Practical Data Science (data science)
https://www.kaggle.com/ (data science)
CS193p - Developing Applications for iOS using SwiftUI (mobile dev)

Textbooks

Basic Mathematics - Serge Lang (teaches basic mathematics as the title says, but is proof based)
Discrete Mathematics with Applications - Susanna Epp (basically the math of computer science)

Useful free APIs

An ecommerce API library that would really help developing an eCommerce application / store
Serverless email sending https://formsubmit.co/
A whole list of public APIs: https://github.com/public-apis/public-apis
https://jsonplaceholder.typicode.com/
https://opentdb.com/
https://developer.apple.com/library/archive/documentation/AudioVideo/Conceptual/iTuneSearchAPI/Searching.html / https://apple.co/3uTzTzn
Test your APIs with https://www.postman.com/ - https://learning.postman.com/

Workflow & Project management

» Agile Uprising - Agile manifesto review
» Extreme programming, a gentle introduction
https://lucasfcosta.com/2022/10/02/scrum-versus-kanban.html
https://www.betterup.com/blog/servant-leadership-what-makes-it-different

Quality Assurance (QA) / Manual Testing

» A primer on Software Testing / QA, SoftwareTestingHelp and some paid alternatives & tests. (https://www.utest.com/academy seems to be free now)
» ISTQB is the basis of testing, and it has both free courses and some tests.
» Functional Testing, Test Management, Automated, Performance and Security Testing (Romanian)
» A roadmap for Quality Engineers in multiple formats including PDF
» A (future) QA roadmap from Roadmap.sh
» 10 portfolio projects for aspiring automation engineers
https://www.tremend.com/qa-course-beginners

https://testautomationu.applitools.com/learningpaths.html
[Romanian only] https://cursuri-it.ejobs.ro/cursuri/tester/tester-qa/ + Testare manuala si automata t(Curs QA) | Udemy (not free) + https://www.academiatestarii.ro/ (not free)

Digital Marketing materials

How about some SEO?

There are a zillion superb articles and resources for SEO, here are a few good places to start:
▶ Complete SEO Course for Beginners: Learn to Rank #1 in Google
https://developers.google.com/search/docs/beginner/seo-starter-guide
https://learndigital.withgoogle.com/digitalgarage/course/seo-fundamentals
» https://ahrefs.com/seo (**mandatory**) + https://ahrefs.com/academy/seo-training-course
» https://backlinko.com/seo-this-year (**mandatory**)
https://developers.google.com/search/docs/essentials
https://backlinko.com/seo-checklist
https://moz.com/professionals-guide-to-seo
» https://learningseo.io/
» moz.com/beginners-guide-to-seo
» moz.com/learn/seo
» ahrefs.com/blog/learn-seo/
» SearchEngineJournal Best SEO Resources
» SearchEngineJournal Become an SEO Expert
» backlinko.com/content-study
» SEOByTheSea Google Ranking Signals
» moz.com/google-algorithm-change
» VieoDesign What are LSI keywords
» moz.com/blog/google-e-a-t
» yoast.com/wordpress-seo/
» uitest.com/analysis/
» 20years.withgoogle.com/
» Content strategy for startups
» Neil Patel's SEO Cheat Sheet
» https://moz.com/beginners-guide-to-seo – An SEO primer + The Ahrefs Blog (great SEO insight)
» Simplilearn YouTube SEO course
» https://ahrefs.com/blog/seo-for-startups/
https://www.semrush.com/academy/courses/content-led-seo-course-with-brian-dean/start-here
https://www.bluearrayacademy.com/courses/technical-seo-certification
https://www.wordstream.com/blog/ws/2015/04/30/seo-basics
https://fili.com/#learn-seo
https://backlinko.com/hub/content
https://www.riseo.ai/

PPC

In order for you to start doing **Google Ads for Performance Marketing / PPC**, I recommend going through Google's own tutorial and then go through this guy's tutorial.

https://www.rezistenta-online.ro/p/instrumente-marketing-online.html

Marketing & business strategy

» Blogging for business (a free - for now - $800 value course from Ahrefs) (**mandatory**)
» SAAS marketing vlog

» Content Marketing, a comprehensive guide from Ahrefs
» Marketing examples - a great list of strategies and tactics, plus a newsletter to go along with it
» ToolSalad - a collection of 200+ online marketing tools
Google Tag Manager for Beginners 2021

Data Science

https://www.dataquest.io/
https://elitedatascience.com/
https://www.springboard.com/resources/learning-paths/data-analysis/

Miscellaneous

https://cxl.com/playbooks/
https://learndigital.withgoogle.com/digitalgarage/course/digital-marketing
https://learndigital.withgoogle.com/digitalunlocked
https://www.wordstream.com/learn PPC University
https://academy.hubspot.com/courses/inbound-marketing?library=true
https://www.quicksprout.com/the-beginners-guide-to-online-marketing/
https://copyblogger.com/imfsp/
https://www.coursera.org/learn/marketing-plan
https://www.edx.org/course/digital-marketing-strategy
https://www.edx.org/course/digital-strategy-and-action
https://www.linkedin.com/learning/paths/become-an-online-marketing-manager
https://ocw.mit.edu/courses/entrepreneurship/
https://www.futurelearn.com/subjects/business-and-management-courses/marketing/digital-marketing
https://blog.hubspot.com/marketing/free-online-marketing-classes
https://blog.google/products/marketingplatform/analytics/prepare-for-future-with-google-analytics-4/
https://www.rezistenta-online.ro/p/make-it-academy.html (paid, in Romanian)
https://www.indiehackers.com/post/tools-ive-used-to-market-my-saas-with-a-0-budget-d6a0ae0f4e
https://sheetsformarketers.com/
https://www.visily.ai/

Front end performance & optimization

1. https://github.com/thedaviddias/Front-End-Performance-Checklist
2. https://www.smashingmagazine.com/2019/07/web-on-50mb-budget/
3. https://developers.google.com/learn/pathways/web-vitals?hl=en

@TODO - to be continued

Challenge sites

https://type.method.ac/ - typography challenges
https://cssbattle.dev/ - CSS challenges
https://www.codingame.com/start -
Front end games and challenges - https://css-tricks.com/front-end-challenges/
Css dinner, flexbox froggy, flexbox defense
clash of code

Blockchain development

https://www.youtube.com/playlist?list=PLKAyGpypHE7dHpGjm_sW9htRkCogBW97i (Romanian)
https://bitcoin.org/en/bitcoin-paper
https://www.youtube.com/watch?v=bBC-nXj3Ng4
https://books.google.ro/books/about/Mastering_Bitcoin.html?id=tponDwAAQBAJ&printsec=frontcover&source=kp_read_button&hl=en&redir_esc=y#v=onepage&q&f=false
▶ Blockchain 101 - A Visual Demo

Linux / DevOps

https://dev.to/javinpaul/5-free-courses-to-learn-linux-for-beginners-367f
▶ Linux Essentials - Beginner Crash Course (Ubuntu)
https://www.edx.org/course/introduction-to-linux
https://lwn.net/Kernel/LDD3/
https://linux-kernel-labs.github.io/refs/heads/master/index.html
https://opensource.com/article/19/4/devops-pipeline
https://codewithmosh.com/p/the-ultimate-docker-course
https://linuxjourney.com/
https://www.dropbox.com/s/oif8f5foarnulj5/humbleBundle-Devops.zip?dl=1
https://github.com/johandry/CKAD
https://www.linkedin.com/posts/rocky-bhatia-a4801010_cloud-devops-kubernetes-activity-7074233926705119232-FIPo/ / https://kodekloud.com/pages/free-week

Python

https://github.com/dabeaz-course/practical-python/blob/master/Notes/Contents.md
https://docs.python.org/3/library/functions.html
Python Programming Beginner Tutorials - YouTube
▶ Python Full Course for free 🐍
An introduction to SciPy
What the fuck, Python!
▶ Python Tutorial - Python for Beginners [Full Course]
Curs de Python gratis pentru incepatori - YouTube (RO)
https://www.udemy.com/course/master-python-programming-complete-python-bootcamp/ (RO)
https://github.com/mariusciurea/python_challenge (RO)
https://www.w3schools.com/python
https://drive.google.com/drive/folders/1E5fGWnZ-tjpjSX8vOf58406HnHqTiS9n (RO)
The Python Tutorial
Automate the boring stuff with Python
Curs de programare în Python 3 pentru începători - Online interactiv gratuit (Romanian)
Tutoriale în Python de Marius Ciurea (Romanian)
The Best Python Books – Real Python
Programming using Python · Stepik
https://www.coursera.org/specializations/python-3-programming
https://www.freecoursesonline.me/code-with-mosh-the-complete-python-programming-course-for-beginners-2431658790/
https://codewithmosh.com/p/python-programming-course-beginners
https://www.w3resource.com/python-exercises/
https://replit.com/
https://python.swaroopch.com/
https://checkio.org/ - https://py.checkio.org/

https://developers.google.com/edu/python/
https://www.learnpython.org/
https://docs.microsoft.com/en-us/training/modules/intro-to-python/
https://scrimba.com/learn/python

Ruby on Rails

https://www.theodinproject.com/paths/full-stack-ruby-on-rails/courses/ruby-on-rails
https://www.ruby-lang.org/en/documentation/quickstart/
https://rubymonk.com/
https://guides.rubyonrails.org/getting_started.html
https://www.codecademy.com/learn/learn-ruby then
https://www.codecademy.com/learn/learn-rails
https://gorails.com/
https://www.youtube.com/watch?v=fmyvWz5TUWg /
https://try.ruby-lang.org/playground/
https://www.pluralsight.com/courses/code-school-rails-for-zombies
https://rubyflow.com/
http://railscasts.com/
https://www.tutorialspoint.com/ruby-on-rails/
https://www.rubytapas.com/
https://www.railstutorial.org/ + https://www.railstutorial.org/book (paid)

Golang

https://github.com/Alikhll/golang-developer-roadmap
https://go.dev/ref/spec
https://go.dev/tour/welcome/1
https://pkg.go.dev/std
https://gobyexample.com/
https://golangbot.com/

C / C++

https://salmer.github.io/CppDeveloperRoadmap/
https://gustedt.gitlabpages.inria.fr/modern-c/
https://en.cppreference.com/w/ / https://en.cppreference.com/w/c /
https://www.learncpp.com/
https://www.learn-c.org/
https://www.youtube.com/watch?v=QpAhX-gsHMs
Working Draft, Standard for Programming Language C++
C++ Annotations
Learn C++
105 STL Algorithms in Less Than an Hour
Stop Teaching C
C++ Weekly With Jason Turner
Generating random numbers using C++ standard library: the problems
C++ atomics, from basic to advanced. What do they really do?
Parameter Passing in C and C++
C++ Reference
How C++ Resolves a Function Call
C++20 Coroutine: Under The Hood
Programming II (C/C++) · Stepik

Learn C++ | Codecademy
Object Oriented Programming (OOP) in C++ Course
http://ix.cs.uoregon.edu/~norris/cis330books/ThinkingInC/Index.html
https://www.learn-c.org/
https://www.codecademy.com/learn/learn-c
https://www.freecodecamp.org/news/the-c-beginners-handbook/
C Programming Tutorial for Beginners

C# / .NET / ASP

https://github.com/MoienTajik/AspNetCore-Developer-Roadmap
https://www.pluralsight.com/courses/csharp-fundamentals-dev
https://www.pluralsight.com/paths/aspnet-core-6-web-api
https://www.udemy.com/course/complete-csharp-masterclass/
https://www.udemy.com/course/complete-aspnet-core-21-course/

Java

Learn Java - Free Interactive Java Tutorial
Job Ready Java
Spring Quickstart Guide / CodingBat Java
(paid) Java EE, Spring, Spring 5, FullStack with Boot and Angular, FullStack with Boot and React
https://java-programming.mooc.fi/
https://www.udemy.com/course/java-tutorial/
OCP Java 11 book
Java Full Course ☕【***Free***】

PHP (Laravel) & MySQL

PHP & MySQL Tutorial | Learn PHP From Scratch | Full Tutorial
https://www.w3schools.com/php/default.asp +
https://www.w3schools.com/php/php_mysql_intro.asp
https://www.udemy.com/course/php-mysql-tutorial/
https://www.coursera.org/learn/web-applications-php
https://www.udemy.com/course/creating-a-simple-newsletter-signup-using-php-and-mysql/
https://www.udemy.com/course/real-time-chat-system-using-php-mysql-pdo-and-ajax/
https://www.udemy.com/course/build-crud-application-php-mysql/
https://www.educative.io/courses/learn-php-from-scratch
https://www.codecademy.com/learn/learn-php
https://www.tutorialspoint.com/php/php_and_mysql.htm
https://www.wikihow.com/Learn-PHP-and-MySQL
https://www.learn-php.org/
PHP Programming Language Tutorial - Full Course
PHP For Absolute Beginners | 6.5 Hour Course
https://www.tutorialspoint.com/php/index.htm

https://phptherightway.com/

https://www.php.net/manual/en/book.pdo.php
https://phpdelusions.net/pdo
https://www.phptutorial.net/php-pdo/
https://www.javatpoint.com/php-pdo

▶ PDO Crash Course (PHP)

https://bulletproofphp.dev/yes-php-is-worth-using

▶ Laravel PHP Framework Tutorial - Full Course for Beginners (2019)
▶ Laravel PHP Framework Tutorial - Full Course for Beginners | Build a Blog with Laravel
https://laravel.com/docs/5.1/quickstart
https://www.tutorialspoint.com/laravel/index.htm
https://laracasts.com/

Generic SQL & Databases

» How does a relational database work?
» Why are NoSQL databases more scalable than SQL?
https://sqlbolt.com/
https://www.masterywithsql.com/
https://www.codecademy.com/learn/learn-sql
https://www.datacamp.com/learn/sql / https://www.datacamp.com/
https://academy.zerotomastery.io/p/complete-sql-database-bootcamp-zero-to-mastery
https://web.cecs.pdx.edu/~maier/TheoryBook/TRD.html
http://webdam.inria.fr/Alice/
https://towardsdatascience.com/designing-a-relational-database-and-creating-an-entity-relationship-diagram-89c1c19320b2

NoSQL

https://www.mongodb.com/nosql-explained
https://www.mongodb.com/developer/quickstart/node-crud-tutorial/
▶ MongoDB Crash Course
https://www.youtube.com/playlist?list=PLLAZ4kZ9dFpOFJ9JcVW9u4PlSWO-VFoao (older version)
▶ MongoDB Full Course | MongoDB Tutorial | MongoDB Tutorial For Beginners | MongoDB | Simp...
https://www.edx.org/course/nosql-basics
https://www.coursera.org/learn/introduction-to-nosql-databases

Game Development

» Super cool introductory course with a presentation video:
▶ How to Teach 5 Semesters of Game Design in 1 Class
» The book: Reality is Broken by Jane McGonigal
https://github.com/UnterrainerInformatik/GameDevelopmentLinks

Game Development in Unity

▶ Learn Unity - Beginner's Game Development Tutorial
https://unity.com/learn
https://www.coursera.org/specializations/game-design-and-development
https://www.udemy.com/user/bentristem/ (paid)
https://www.udemy.com/course/introduction-to-game-development-with-unity/ (free)
https://www.udemy.com/course/unity-game-developer/
https://www.pluralsight.com/courses/introduction-game-development-unity
https://www.freecodecamp.org/news/game-development-for-beginners-unity-course/
https://learn.unity.com/

Game assets

https://itch.io/game-assets/free

https://assetstore.unity.com/top-assets/top-free

Game Development in HTML5 / JavaScript

Franks laboratory

▶ Learn JavaScript by Building 7 Games - Full Course

Visual Web Development (2021) (playlist)

Front End Web Development Projects for Beginners (playlist)

▶ JavaScript Game Development Crash Course

https://www.udemy.com/course/free-prep-for-html5-game-development/

https://www.udemy.com/course/code-your-first-game/

▶ Intro to Game Development with JavaScript - Full Tutorial

▶ JavaScript Game Development Crash Course

https://developer.ibm.com/tutorials/wa-build2dphysicsengine/

Graphics

https://www.udemy.com/course/how-to-program-games/ (paid)

https://www.udemy.com/course/create-quick-professional-2d-game-backgrounds-in-photoshop/ (paid)

https://www.udemy.com/course/the-ultimate-2d-game-character-design-animation-course/ (paid)

https://www.udemy.com/course/learn-professional-pixel-art-animation-for-games/ (paid)

http://jamie-wong.com/2016/07/15/ray-marching-signed-distance-functions/

https://interfaceingame.com/games/

https://www.gameuidatabase.com/

3D Modelling & Animation

Tutorials — blender.org

Blender Guru

CG Fast Track

Blender Fundamentals 2.8 + https://www.youtube.com/watch?v=kes2qmijy7w + https://www.youtube.com/watch?v=hvoniP3uso8

https://www.blenderguru.com/articles/how-i-learned-blender-and-5-tips-for-you

https://cgcookie.com/course/character-animation-toolkit/

▶ Lighting and Baking Workflow: Blender Tutorial

CG Geek

https://vimeo.com/30073532

https://www.creativebloq.com/features/blender-shortcuts

Other technical aspects (NEW)

Networking, Linux, Cyber Security, Penetration Testing, Ethical Hacking

Security Certification Roadmap !!!!!!!!!!!!!

https://academy.tcm-sec.com/p/practical-ethical-hacking-the-complete-course

HACKING GOOGLE - YouTube playlist

https://beej.us/guide/bgnet/ / https://beej.us/guide/bgnet/html/
https://www.computer-networking.info/2nd/html/index.html
https://www.saminiir.com/lets-code-tcp-ip-stack-1-ethernet-arp/
https://www.isi.edu/~hussain/TEACH/Spring2014/notes/Steven00a.pdf
https://github.com/JeckyOH/e-books-oh/blob/master/%5BAddison-Wesley%20Professional%5D%20TCP%20IP%20Illustrated%20Volume%202%20The%20Implementation.pdf
https://github.com/akib1162100/mac/blob/master/The%20TCP-IP%20Guide%20-%20A%20Comprehensive%20Illustrated%20Internet%20Protocols%20Reference.pdf
http://www.tcpipguide.com/free/t_toc.htm
How to Pass Your N10-008 Network+ Exam

https://ossinsight.io/collections/security-tool/
https://www.hackthebox.com/blog/aws-pentesting-guide

https://pentest-tools.com/blog/offensive-security-books

https://www.ired.team/

https://github.com/jivoi/awesome-osint
https://ppn.snovvcrash.rocks/

https://arttoolkit.github.io/
https://github.com/stars/ViorelMocanu/lists/cyber-security

https://vulnmachines.com/
https://edoardottt.github.io/awesome-hacker-search-engines/
https://github.com/nccgroup

https://www.netacad.com/courses/networking
https://www.netacad.com/courses/networking/networking-essentials
https://www.netacad.com/courses/networking/ccna-introduction-networks
https://www.netacad.com/courses/networking/ccna-switching-routing-wireless-essentials
https://www.netacad.com/courses/networking/ccna-enterprise-networking-security-automation

https://www.netacad.com/courses/cybersecurity
https://www.netacad.com/courses/cybersecurity/introduction-cybersecurity

https://start.bitwarden.com/hubfs/The%20Hacker%E2%80%99s%20Guide%20to%20Securing%20Your%20Organization_V2.pdf

https://www.netacad.com/courses/iot/introduction-iot
https://www.netacad.com/courses/iot/iot-fundamentals
https://www.netacad.com/courses/iot/big-data-analytics

https://www.netacad.com/courses/os-it/get-connected
https://www.netacad.com/courses/os-it/it-essentials

https://tcm-sec.com/so-you-want-to-be-a-hacker-2022-edition/
Become an Ethical Hacker for $0
https://corneacristian.medium.com/from-zero-to-your-first-penetration-test-7479bce3a5

Linux Journey: Home
https://academy.tcm-sec.com/p/linux-101 (paid)
https://www.codecademy.com/
https://teamtreehouse.com/ (paid)
https://www.professormesser.com/ one after the other
CompTIA 220-1001 and 220-1002 A+ Training Course - Professor Messer IT Certification Training Courses
https://skillsforall.com/topics/cisco-packet-tracer
▶ Ethical Hacking in 12 Hours - Full Course - Learn to Hack!
▶ How to Build a PC! Step-by-step
Professor Messer's CompTIA N10-007 Network+ Course
https://www.netacad.com/courses/packet-tracer
TOTAL: CompTIA Network+ Certification (N10-007)
https://overthewire.org/wargames/bandit/
▶ Full Ethical Hacking Course - Beginner Network Penetration Testing (2019)
▶ The Complete Linux for Ethical Hackers Course for 2019
Retelistica pentru Incepatori | Cisco CCNA Modulul 1, 2, 3, 4 | Retele de Calculatoare - YouTube (Romanian)
Linux: Tutoriale pentru Incepatori | Invata Linux & Ubuntu - YouTube (Romanian)
Securitate Cibernetica si Ethical Hacking: Tutoriale pentru incepatori | CEH | CCNA Security | Invata Securitate - YouTube (Romanian)
Known Exploited Vulnerabilities Catalog | CISA
▶ IDORs/BOLA - Jr. Penetration Tester [Learning Path]
https://www.vulnhub.com/
https://www.pentesteracademy.com/
https://courses.zeropointsecurity.co.uk/courses/red-team-ops (paid)
https://www.hacker101.com/
https://portswigger.net/web-security
https://bugcrowd.com/programs
https://www.bugcrowd.com/hackers/bugcrowd-university/
https://pentesterlab.com/
▶ Beginner Web Application Hacking (Full Course)
https://owasp.org/www-project-top-ten/
https://owasp.org/www-project-web-security-testing-guide/
https://hackerone.com/hacktivity
https://www.aircrack-ng.org/
https://solstice.sh/
Buffer Overflows Made Easy - YouTube
https://book.hacktricks.xyz/
https://www.youtube.com/watch?v=qwA6MmbeGNo OSINT in 5 hours
Kubernetes Hardening Guide from NSA

https://cyberempathy.org/
https://github.com/madhuakula/kubernetes-goat

» TryHackMe - cyber security training - start here: https://tryhackme.com/path/outline/beginner
» HackTheBox - start hacking / CTF Time / Pico CTF - hack by playing / Over the Wire - wargames
» Pentester Academy / PortSwigger Web Security Academy
» Offensive Security Certifications (paid) / SANS Security Certifications (paid)
» NetworkChuck - tons of free tutorials and a few paid high quality ones
» YouTube: IppSec, John Hammond, LiveOverflow, DEFCON, BlackHat

» David Bombal's videos / XSS cheat sheet / Udemy: Practical ethical hacking / Matt G's Road to CCIE
» Heath Adams' practical ethical hacking / all courses from TCM-SEC
» How to make your forms really spambot-proof / how to secure anything / zero day guide / reports
» VulnHub / OWASP Top 10 / Offensive Security Certifications / SANS Cyber Security Courses
» Linux Certification / CISCO CCNA / CompTIA Security+ / Certified Ethical Hacker
» Podcast: Darknet Diaries / BurpSuite proxy / Kali Linux / Pentest-Tools.com
» European Cyber Security Challenge / Synack / CVE.org / Hak5
https://mitre-attack.github.io/attack-navigator/
▶ CISSP Certification Course – PASS the Certified Information Security Professional Exam!
(use with care, these appear to have some viruses of sorts: https://z0mbie.dreamhosters.com/ + https://vxug.fakedoma.in/archive/VxHeaven/vx.php@id=z001.html)
https://d3fend.mitre.org/ A knowledge graph of cybersecurity countermeasures
Pentesting Web checklist
https://www.hacker101.com/
https://masterofproject.com/p/ethical-hacking-overview
▶ Cyber Security Paths | The LAST Roadmap You'll Ever Need

Tools
https://github.com/smicallef/spiderfoot
https://github.com/trufflesecurity/trufflehog
https://crackstation.net/
https://github.com/lc/gau

Search engines
https://gist.github.com/
https://github.com/
https://leakix.net/
https://haveibeenpwned.com/
https://intelx.io/
https://www.shodan.io/
https://archive.org/web/
https://pentest-tools.com/information-gathering/google-hacking
https://www.exploit-db.com/google-hacking-database

17 platforms where you can begin cybersecurity:
1. HackXpert - Free labs and training.
2. TryHackMe - Hands-on exercises and labs.
3. CyberSecLabs - High quality training labs.
4. Cybrary - Videos, labs, and practice exams.
5. LetsDefend - Blue team training platform.
6. Root Me - Over 400 cybersecurity challenges.
7. RangeForce - Interactive and hands-on platform.
8. Certified Secure - Loads of different challenges.
9. Vuln Machines - Real world scenarios to practice.
10. Try2Hack - Play a game based on the real attacks.
11. TCM Security - Entry level courses for cybersecurity.
12. EchoCTF - Train your offensive and defensive skills.
13. Hack The Box - Cybersecurity training platform.
14. Vuln Hub - Material for hands-on experience.
15. OverTheWire - Security concepts via challenges.
16. PentesterLab - Learn web-app penetration testing.
17. PortSwigger Web Security - General learning.

Computer graphics & rendering

» 100 second introduction into WebGL
» Learn computer graphics from scratch: full course
» Drawing lines is hard
» Physically based rendering
» 3D modeling for Virtual Reality
» Learn Blender - video 1 + video 2 (free course)
» https://64.github.io/tonemapping/

Hosting & deployment

» For Wordpress, the best is SiteGround - which is also green - but a free PHP host is also InfinityFree
» For Vue, React, Angular, etc, the best is Netlify and Vercel
» For NodeJS REST APIs, the best is Adaptable / Railway / Fly.io
» For static sites, the best is GitHub Pages

Design & UX + Video (NEW / WIP)

» What is interaction design?
» Design systems for: everyone, developers, designers, product managers
» Information Design & Visualization fundamentals
» Modern web design
» Advanced prototyping with Axure
» Prototyping digital products & websites
» Questions to ask before starting a design project
https://uxdesign.cc/baseline-grids-design-systems-ae23b5af8cec

https://www.toools.design/ui-web-design-inspiration-websites

https://create.microsoft.com/en-us
https://designer.microsoft.com/
https://uxdesign.cc/guide-for-designing-better-mobile-apps-typography-5796495ef86f
https://medium.muz.li/typography-in-mobile-design-15-best-practices-to-excellent-ui-5eaf18280ad
https://apps.apple.com/ro/app/swiftyprep/id6466783060
https://www.smashingmagazine.com/2023/11/designing-web-design-documentation/

https://principles.design/
https://www.designprinciplesftw.com/
https://dashboarddesignpatterns.github.io/patterns.html

https://colorandcontrast.com/
https://roadmap.sh/design-system
https://designcourse.com/ui-ux

https://spencermortensen.com/articles/typographic-scale/
https://alistapart.com/article/more-meaningful-typography/
https://pimpmytype.com/font-size/
https://pimpmytype.com/line-length-line-height/
https://pimpmytype.com/avoid-centered-text/
https://noti.st/rar/BgtJDk
https://www.thegoodlineheight.com/

https://www.linkedin.com/posts/vitalyfriedman_ux-design-accessibility-activity-7096750363969511426-BzEE/
https://www.linkedin.com/feed/update/urn:li:activity:7025016663125151744/
https://www.linkedin.com/posts/vitalyfriedman_ui-design-activity-7074644381244215296-D5WZ/
https://betterwebtype.com/8-tips-for-remarkably-better-typography/
https://betterwebtype.com/8-more-tips-for-remarkably-better-typography/
https://www.deviantart.com/martinsilvertant/art/Typography-Series-01-Anatomy-of-typography-329617642
https://blog.typekit.com/2016/04/29/combining-typefaces-free-guide-to-great-typography/
https://practicaltypography.com/
https://www.process-masterclass.com/free-resources#column_jp0670268
https://www.learnui.design/blog/guide-pairing-fonts.html
https://connary.com/pairing.html
https://www.figma.com/community/file/1114720838108123725
https://blog.datawrapper.de/fonts-for-data-visualization/
https://fonts.google.com/knowledge
https://fonts.google.com/knowledge/glossary
https://fontsinuse.com/
https://typehunting.com/
https://shadycharacters.co.uk/
https://ia.net/topics/the-web-is-all-about-typography-period
https://modernfontstacks.com/
https://www.freefaces.gallery/
https://legible-typography.com/en/
https://typescale.io/

https://static.googleusercontent.com/media/fonts.google.com/en//knowledge/stop_stealing_sheep.pdf
https://modern-fluid-typography.vercel.app/
https://www.myfonts.com/pages/whatthefont
https://screenspan.net/fallback
https://github.com/zachleat/glyphhanger => https://www.zachleat.com/web/glyphhanger/ /
https://www.stefanjudis.com/notes/glyphhanger-a-tool-subset-and-optimize-fonts/
https://csswizardry.com/2020/05/the-fastest-google-fonts/

https://typedesignresources.com/

Learn Design with Figma
https://www.uxlibrary.org/
https://uxarchive.com/
https://mobbin.design/browse/ios/apps
https://www.reallygoodux.io/
https://www.checklist.design/
https://www.darkpatterns.org/
Welcome - Universal Principles of Design Video Tutorial
The School Of Design: Design
▶ How You Can Learn Design Without School
https://www.theleagueofmoveabletype.com/
https://type-scale.com/
https://utopia.fyi/blog/css-modular-scales/
https://www.smashingmagazine.com/2010/11/best-practices-of-combining-typefaces/
https://www.typewolf.com/
https://www.typewolf.com/resources

https://www.fontpair.co/
https://open-foundry.com/
https://usemodify.com/
https://uxdesign.cc/uniwidth-typefaces-for-interface-design-b6e8078dc0f7
https://seek-oss.github.io/capsize/
https://www.modularscale.com/
https://www.layoutgridcalculator.com/typographic-scale/
https://meowni.ca/font-style-matcher/
https://stylestage.dev/
https://www.frontendmentor.io/
https://cssbattle.dev/
https://www.codewars.com/
https://www.frontendpractice.com/
https://www.firsttimersonly.com/
http://www.designhistory.org/index.html
http://www.designishistory.com/
https://www.ucreative.com/design/
https://www.smashingmagazine.com/category/design/
https://learnui.design/ (not free)
Gareth David Studio
https://creativemarket.com/blog/10-design-ted-talks-you-should-watch
https://www.designsystemchecklist.com/
https://ozanoz.notion.site/Product-Design-Resources-48d76e4b4252443eb2ae77ff0ab8cfca
https://uxdesign.cc/usability-heuristic-frameworks-which-one-is-right-for-you-1962387b7cc
https://www.userinterviews.com/launch-kit
https://uxtools.co/blog/best-ux-research-methods-in-a-pinch/
https://askplaybook.com/
https://d.mba/guides/
https://twitter.com/i/events/994601867987619840
https://www.learnui.design/blog/spice-up-designs.html
https://twitter.com/robhope/status/1265278107088347136 / https://onepagelove.com/100-tips
https://www.adhamdannaway.com/blog/ui-design/16-ui-design-rules
https://twitter.com/vponamariov/status/1368851471660421120
https://fifty.user-interface.io/ - https://fifty.user-interface.io/50_ui_tips.pdf
https://medium.muz.li/gestalt-principles-in-ui-design-6b75a41e9965
https://uxdesign.cc/dieter-rams-and-ten-principles-for-good-design-61cc32bcd6e6
https://anthonyhobday.com/sideprojects/saferules/
https://www.refactoringui.com/
https://www.practical-ui.com/
https://uxhints.com/
https://uxdesign.cc/guide-on-creating-ui-design-for-ios-apps-5bed644b1667
https://frankrausch.com/ios-navigation
https://www.nngroup.com/articles/state-mobile-ux/
https://www.nngroup.com/articles/mobile-ux-study-guide/
https://www.learnui.design/blog/ios-vs-android-app-ui-design-complete-guide.html
https://smart-interface-design-patterns.com/articles/accessible-tap-target-sizes/
https://uxdesign.cc/digging-deep-in-layout-grids-in-mobile-app-design-ef07ace5b291
https://www.videosmaller.com/
https://www.nngroup.com/articles/career-progression-practitioners/
https://www.linkedin.com/newsletters/interface-design-patterns-%25F0%259F%258D%25A3-7015923371875926016/

AI powered tools

https://cms.greatquestion.co/blog/ai-for-design-research

https://www.framer.com/

https://designer.microsoft.com/

https://uizard.io/

https://www.taskade.com/

https://www.bing.com/create

https://www.autodraw.com/

https://www.plusdocs.com/

https://slidesgo.com/

https://tome.app/

https://pebblely.com/

https://www.booth.ai/

https://www.stylized.ai/

https://fronty.com/

https://letsenhance.io/

https://www.remove.bg/

https://www.visily.ai/

https://spectaclehq.com/

Copywriting & Content Writing (new)

Ahrefs Academy: Blogging for business

How to write inclusive, accessible digital products | by Nick DiLallo

Speak Human

Good Copy • Email copy from great companies

UX Writing Resource Library - Home

Really Good Emails

https://learndigital.withgoogle.com/atelieruldigital

Book: Ogilvy on Advertising in the Digital Age

Book: Cialdini - Influence, the psychology of persuasion (new and expanded)

https://copyblogger.com/

https://copyblogger.com/imfsp/

https://contentmarketinginstitute.com/

https://backlinko.com/hub/content

https://www.wordstream.com/blog/ws/2023/10/27/brand-messaging

https://www.linkedin.com/posts/shlomogenchin_18-books-that-have-helped-me-become-a-better-activity-7123229056208150529-VdgF/

18 books that have helped me become a better copywriter:

🧱 Basics
- Hey, Whipple, Squeeze This by Luke Sullivan
- The Adweek Copywriting Handbook by Joseph Sugarman
- The Ultimate Sales Letter by Dan S. Kennedy

📺 Make ads
- The Advertising Concept Book by Pete Berry
- Ogilvy on Advertising by David Ogilvy

💪 Build Confidence
- A Self-Help Guide for Copywriters by Dan Nelken
- Show Your Work by Austin Kleon

💡 Be more creative

- Alchemy by Rory Sutherland
- Lateral Thinking by Edward de Bono
- Steal Like an Artist by Austin Kleon

✍️ Write better

- The Elements of Style by William Strunk Jr. and E.B. White
- The Copy Book by D&AD

🧠 Understand your reader

- Contagious by Jonah Berger
- Thinking, Fast and Slow by Daniel Kahneman
- Influence by Robert B. Cialdini

© Grow brands and tell stories

- Made to Stick by Chip Heath and Dan Heath
- Obviously Awesome by April Dunford
- Building a StoryBrand by Donald Miller

Entrepreneurship & business materials (new)

» https://www.startupschool.org/

» YCombinator - News + YouTube + Website

» https://learn.saylor.org/

» Running a better business the Basecamp way

» A fantastic way of storing files and creating backups: Dropbox

» A great newsletter service: ConvertKit

» A great streaming service that multi-streams to YouTube, Twitch, Facebook, etc: StreamLabs

» A great YouTube plugin to help your channel grow: TubeBuddy

» Actually pragmatic and easy to implement Product Lessons you need to learn now

FANTASTIC list of services: https://landingpage.fyi/landing-page-checklist.html

https://www.indiehackers.com/post/these-now-successful-founders-failed-hard-so-you-don-t-have-to-8d95d439db

https://appsumo.com/ / https://ocw.mit.edu/courses/entrepreneurship/

https://www.ycombinator.com/blog/13-startup-ideas

https://blog.ycombinator.com/ycs-essential-startup-advice/

https://www.ycombinator.com/rfs/ / https://www.producthunt.com/ / https://betalist.com/ /
https://www.indiehackers.com/ / https://startupstash.com/explore/ /
https://www.growthmentor.com/ / https://nocodefounders.com/ / https://foundersnetwork.com/ /
https://www.indiehackers.com/post/66-sites-to-promote-your-startup-4f7559abaf

Learn English (from Romanian)

1. https://www.britishcouncil.ro/engleza/invata-online/gratis
2. https://www.duolingo.com/ mai exact https://ro.duolingo.com/course/en/ro/%C3%8Enva%C8%9B%C4%83-englez%C4%83
3. https://www.lingohut.com/ro/l1/%C3%AEnva%C8%9B%C4%83-limba-englez%C4%83
4. mmmEnglish

Resources for students

https://education.github.com/
https://htmlrev.com/
@TODO add more

Free tools and resources for everyone

https://cloud.google.com/free

Final life advice

1. How to speak: an MIT lecture
2. How to learn more efficiently: study less, study smart + learning how to learn + Huberman
3. How to sleep: Toolkit for Sleep - Huberman Lab
4. Two minute papers - a YouTube channel with a mission to make research papers digestible
5. Draw a map of your past, evaluate your present and plan your future to win at life
6. How to ask questions the smart way + Don't ask to ask, just ask!
7. Time management: Defeating busy
8. Justice - Moral Philosophy course from Harvard
9. Physics course from MIT
10. Quantum Mechanical view of Reality by Richard Feynman
11. Crash Course in World History by John Green
12. Introduction to Economics by Marginal Revolution University
13. Nonlinear Dynamics and Chaos by Cornell University
14. A bunch of courses in Romanian, from Universitatea Politehnică București
15. https://www.imdb.com/title/tt3322570/ a series on brain hacking
16. https://atelierul.digital/ useful resources (in 🇷🇴 Romanian)

aștept sugestii pe YouTube:

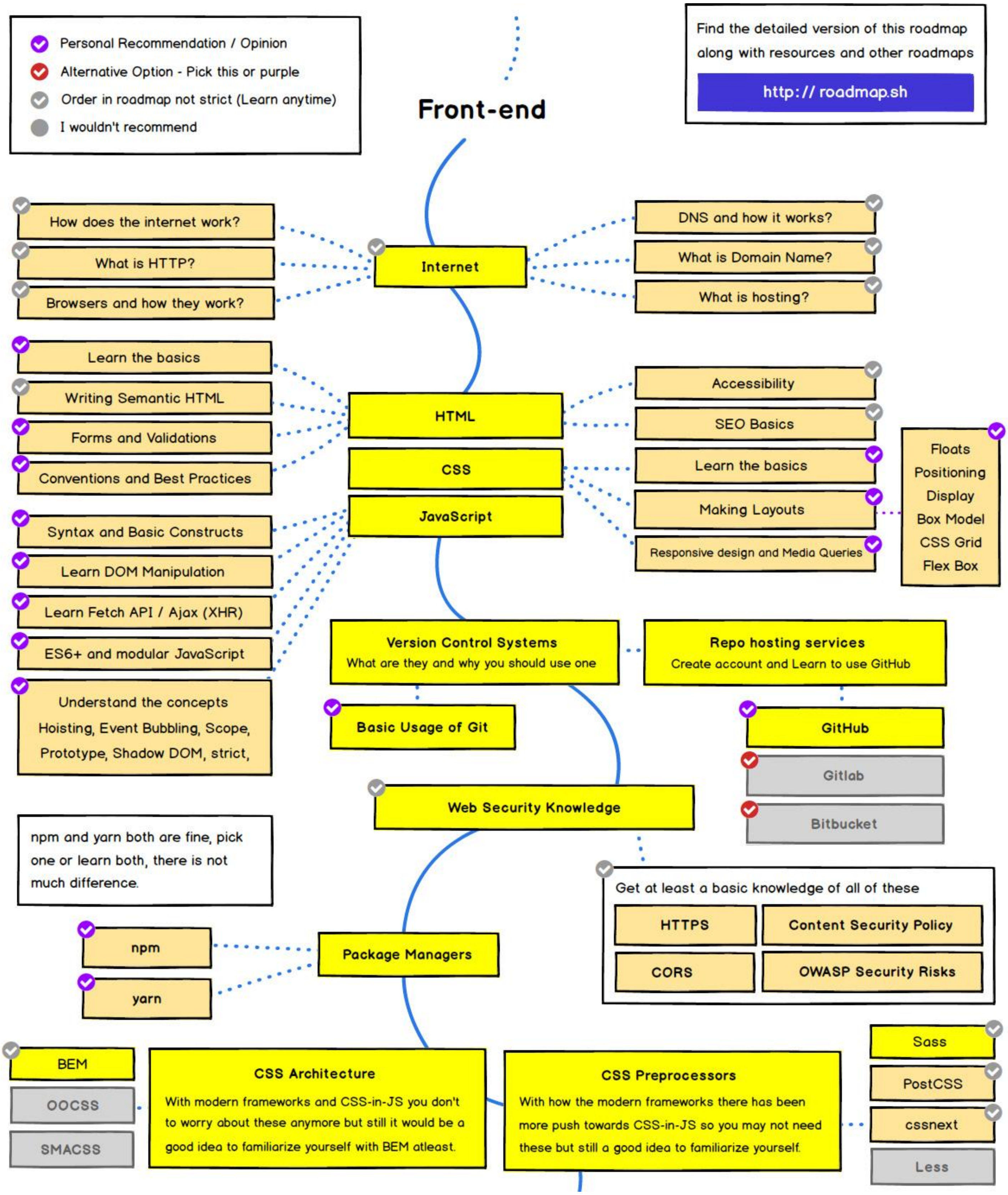
Shameless self promotion - My YouTube

Dacă te tentează o carieră în domeniul IT, mi-am făcut recent canal de YouTube în care vorbesc despre ce-ar trebui să faci ca să-ți sporești șansele să înveți ce trebuie, să te descurci singur/ă, să fii autodidact/ă și să ai posibilitatea să te angajezi în domeniu. Dacă sună bine, înscrie-te la canal, dând click pe link-ul ăsta: https://www.youtube.com/c/ViorelMocanu?sub_confirmation=1

Succes în carieră!

An overview of the paths in Front End Development

The source, and a lot of tutorial links, can be found here (2018 edition) and an updated one for 2020 can be found here, with the actual source of the graph being at https://roadmap.sh/ + alternative here. RPG variant. Non-visual but super comprehensive.



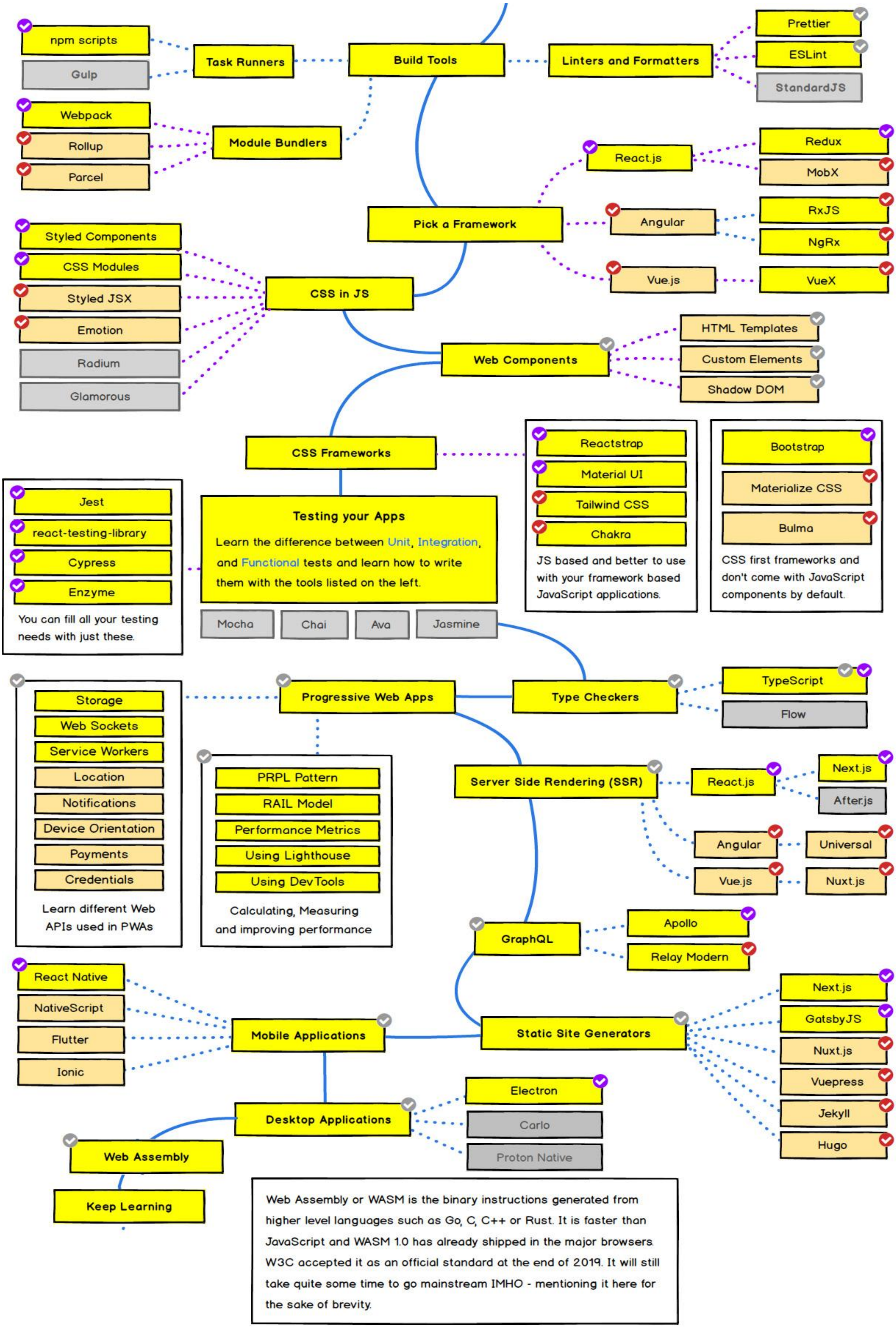
Find the detailed version of this roadmap along with resources and other roadmaps

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

Get at least a basic knowledge of all of these

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

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.



npm scripts

Gulp

Task Runners

Build Tools

Linters and Formatters

Prettier

ESLint

StandardJS

Webpack

Rollup

Parcel

Module Bundlers

React.js

Redux

MobX

Pick a Framework

Angular

RxJS

NgRx

Vue.js

VueX

Styled Components

CSS Modules

Styled JSX

Emotion

Radium

Glamorous

CSS in JS

HTML Templates

Custom Elements

Shadow DOM

Web Components

CSS Frameworks

Reactstrap

Material UI

Tailwind CSS

Chakra

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

Bootstrap

Materialize CSS

Bulma

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

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

Type Checkers

TypeScript

Flow

Storage

Web Sockets

Service Workers

Location

Notifications

Device Orientation

Payments

Credentials

Learn different Web APIs used in PWAs

Progressive Web Apps

PRPL Pattern

RAIL Model

Performance Metrics

Using Lighthouse

Using DevTools

Calculating, Measuring and improving performance

Server Side Rendering (SSR)

React.js

Next.js

After.js

Angular

Universal

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

Desktop Applications

Electron

Carlo

Proton Native

Web Assembly

Keep Learning

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 IMHO - mentioning it here for the sake of brevity.

Structura Resurse.dev

Resurse de Front End Development

1. Introducere în Front End
2. Unelte Utile de Front End
    a. Browsere și plugin-uri
    b. Editoare text și IDE-uri
    c. Version control și GIT
    d. Transfer de fișiere și FTP
    e. Testarea site-urilor
    f. Hosting & deployment pentru site-uri
    g. Alte unelte și resurse de Front End
3. HTML (Hyper Text Markup Language)
    a. Elemente de bază
    b. Arhitectură și structuri informaționale
    c. Secțiuni de conținut
    d. Formulare
    e. Meta informații
    f. Semantică
    g. Multimedia și elemente non-standard
    h. Embed-uri și Web Components
    i. Convenții și bune practici
    j. Accesibilitate
    k. SEO Tehnic
    l. Progressive enhancement
    m. Performanță
    n. Emmet și alte utilitare pentru viteză
4. CSS (Cascading Style Sheets)
    a. Introducere în CSS
    b. Componente și detalii
    c. Tipografie
    d. Layout și Box Model
    e. Interactivitate
    f. Animații și efecte speciale
    g. Principii și sisteme de design
    h. SCSS vs SASS vs LESS
    i. Tailwind și alte framework-uri de CSS
5. Layout & Mobile-first Responsive Web Design
    a. Responsive Web Design
    b. Mobile 1st
    c. Layout
    d. Templating
6. Implementare de design, templating și UX
    a. UX (Experiența Utilizatorului)
    b. Figma
    c. Adobe XD
    d. Photoshop
7. JavaScript
    a. Introducere în JS
    b. Sintaxă de bază în JS
    c. Tehnici avansate în JS

    d. Algoritmică în JS
    e. Cursuri și resurse de Vanilla JS
    f. Convenții și bune practici
8. TypeScript
    a. Introducere în TS
    b. Types și aserții
    c. Concepte avansate de TS
    d. Module de TS
    e. Ecosistem de TS
9. Tooling de Front End
    a. Bundling (NPM)
    b. Package Management (PNPM)
    c. Task running (?)
    d. Style formatting (Prettier)
    e. Linting (ESLint)
    f. Unit Testing (Vitest)
    g. End to End Testing (Playwright)
    h. Type checking (TS)
10. Framework-uri și sisteme de Front End
    a. React.js și Next.js
    b. Vue și Nuxt.js
    c. Angular
    d. Svelte și SvelteKit
    e. Qwik și QwikCity
    f. Solid și SolidStart
    g. Astro
    h. Preact
    i. Express
    j. HTMX
    k. Alte framework-uri
11. Autentificare și securitate în Front End
    a. Autentificare (JWT, OAuth, SSO, Basic Auth, Session Auth)
    b. Securitate web (CORS, HTTPS, CSP, OWASP)
12. Strategii de randare și content delivery
    a. Static & SSG / MPA
    b. Server & SSR
    c. Client & SPA
    d. Hybrid (SSG + SSR + SPA)
    e. Multi-platform (PWA, Electron, React Native, Flutter)
13. Idei de proiecte de Front End
14. Știri și noutăți din programare
    a. Site-uri cu articole
    b. Newslettere
    c. Comunități

Resurse de Programare și Back End Development

1. Introducere în programare
    a. Resurse pentru copii
    b. Locuri bune de unde să începi
2. Unelte Utile de Back End
    a. Editoare text și IDE-uri
    b. Version control și GIT

    c. Transfer de fișiere și FTP
    d. API-uri publice gratuite
    e. Alte unelte și resurse de Back End
3. Teoria programării și Computer Science
    a. Structuri de date
    b. Notație asimptotică și Big O
    c. Algoritmi comuni
    d. Manipulare de string-uri
    e. Operatori binari
    f. Numere reale și floating point
    g. Encoding de caractere
    h. Diagrame UML
    i. Design patterns
    j. Clase de complexitate
    k. Arbori de căutare
    l. Design de sisteme
    m. Baze de date
    n. Rețelistică
    o. Securitate
    p. Cum funcționează calculatoarele
    q. Procese și thread-uri
4. Matematica necesară programării
    a. ???
5. Algoritmi și structuri de date
    a. ???
6. Design și arhitectură software
    a. Design patterns
    b. Domain driven design
    c. Test driven development
    d. CQRS
    e. Event sourcing
    f. Modele arhitecturale
    g. Brokeri de mesaje
    h. Containerizare și virtualizare
    i. Servere și clienți
    j. Scalabilitate
7. Limbaje de programare
    a. Node.js
    b. PHP
    c. Python
    d. Java
    e. C / C++
    f. C# / ASP.NET
    g. Rust
    h. GoLang
    i. Haskell
    j. OCaml
    k. Prolog
    l. Forth
    m. Erlang
    n. R
    o. Rails
    p. Kotlin

   q. Bash
   r. PowerShell
   s. Alte limbaje de programare
8. SQL (Baze de date relaționale)
   a. Introducere în SQL, DDL și DML
   b. MySQL
   c. PostgreSQL
   d. SQLite
   e. Microsoft SQL Server
   f. Oracle
   g. IBM Db2
   h. MariaDB
   i. Alte base de date SQL
   j. Optimizări și tehnici avansate de SQL
9. NoSQL (Baze de date non-relaționale)
   a. Introducere în NoSQL
   b. MongoDB / CouchDB (Document DBs)
   c. Redis / DynamoDB (Key-Value)
   d. Firebase / Supabase / RethinkDB (Realtime)
   e. ElasticSearch / Splunk (Search)
   f. Apache Cassandra / HBase (Column DBs)
   g. InfluxDB / TimeScale (Time series)
   h. Alte baze de date NoSQL
   i. Optimizări și tehnici avansate de NoSQL
10. OOP (Programare orientată pe obiecte)
   a. ???
11. API-uri
   a. Autentificare
   b. REST
   c. JSON
   d. SOAP
   e. gRPC / tRPC
   f. GraphQL
   g. API-uri publice gratuite
12. Framework-uri și sisteme de Back End
   a. Wordpress
   b. Laravel
   c. .NET
   d. Ruby on Rails
   e. Express
   f. Alte framework-uri de Back End
13. DevOps (Development Operations)
   a. Terminalul sistemului de operare
   b. Version control și GIT
   c. Sisteme conexe
   d. Containere
   e. Provideri de Cloud
   f. Protocoale de rețelistică și securitate
   g. Serverless
   h. Provizionare infrastructurală
   i. Management-ul configurărilor
   j. CI/CD
   k. Management-ul secretelor

   l. Management-ul infrastructurii
   m. Monitorizare software
   n. Management-ul log-urilor
   o. Orchestrarea containerelor
   p. Management-ul artefactelor
   q. GitOps
   r. Alte concepte și soluții DevOps

14. Game Development (Dezvoltarea de jocuri)
    a. Asset-uri pentru jocuri
    b. Matematica necesară jocurilor
    c. Sisteme de fizică folosite în jocuri
    d. Dezvoltare de jocuri în Unity
    e. Dezvoltare de jocuri în Unreal Engine
    f. Dezvoltare de jocuri în Godot
    g. Dezvoltare de jocuri native
    h. Alte engine-uri de game development
    i. Modelare 3D
    j. Grafică digitală și randare pentru jocuri
    k. Inteligență Artificială în jocuri
    l. Rețelistică și scalabilitate în jocuri multiplayer
    m. Stocare de date pentru jocuri
    n. Multithreading pentru jocuri
    o. Alte resurse pentru Game Development
15. Native Mobile Development
    a. Componentele aplicațiilor mobile
    b. Interfața și navigarea în aplicații mobile
    c. Arhitectură și design patterns pentru aplicații mobile
    d. Stocarea datelor în aplicații mobile
    e. Comunicare și sincronicitate mobilă
    f. Servicii pentru aplicații native
    g. Alte resurse pentru dezvoltare nativă
16. Grafică și engine-uri de randare
    a. ???
17. Blockchain & Crypto Development
    a. Concepte de Blockchain
    b. Blockchain-uri EVM
    c. Blockchain-uri L2
    d. Alte blockchain-uri
    e. Oracles
    f. Smart Contracts
    g. Securitate Blockchain
    h. Aplicații descentralizate
    i. Scalabilitate Blockchain
18. Sisteme de operare
    a. Linux / Unix
    b. Windows
    c. MacOS / iOS
    d. Android
19. Hardware și programare low level
    a. ???
20. Data Science & Data Mining
    a. ???
21. Inteligență Artificială și Machine Learning

    a. Matematică
    b. Statistică
    c. Econometrică
    d. Limbaje de programare
    e. Analiză de date exploratorie (EDA)
    f. Machine Learning
    g. Deep Learning
    h. MLOps

22. Idei de proiecte de Back End
23. Știri și noutăți din Programare
    a. Site-uri cu articole
    b. Newslettere
    c. Comunități

Resurse de Design, Grafică, Videografie și creativitate

1. Principii de design și estetică
    a. White space
    b. Contrast
    c. Mărimi
    d. Aliniament
    e. Ierarhie vizuală
    f. Unități de măsură
2. Tipografie și typeface-uri
    a. Principii esențiale de design tipografic
    b. Aranjarea textului
    c. Alegerea font-urilor
3. Layout și sisteme de grid-uri
    a. ???
4. Teoria culorilor
    a. ???
5. Branding și design de identitate
    a. ???
6. Design de componente de UI (User Interface)
    a. Butoane și navigare
    b. Articole și conținut
    c. Formulare și interactivitate
    d. Artefacte vizuale
7. Design de UX (User Experience)
    a. Arhitectură informațională
    b. Wireframing și Prototyping
    c. Comportament și HCI (Human Computer Interaction)
    d. Product & Business Model
    e. Bune practici în UX
    f. Măsurarea impactului și user testing
8. Design accesibil
    a. Contrast
    b. Mărimi
9. Interaction Design, animații și efecte speciale
    a. Animații
    b. Efecte speciale
10. Ilustrație, infografice și design grafic
    a. ???

11. Grafică și Modelare 3D
    a. ???
12. Computer graphics, randare și engine-uri grafice
    a. ???
13. Game Design & Level Design
    a. ???
14. Fotografie și editare foto
    a. ???
15. Videografie și editare video
    a. ???
16. Design Systems și Design Thinking
    a. ???
17. Resurse de design
    a. Imagini și video-uri stock
    b. Repository-uri de font-uri
    c. Iconițe
    d. Grafică vectorială
    e. Unelte creative bazate pe AI

Resurse de Marketing Online

1. Introducere în marketing online
    a. Conversie și călătoria cumpărătorului
    b. Funnel vs flywheel
    c. UVP (Unique Value Proposition)
    d. ROI (Return on Investment)
2. Studii de piață și analiza concurenței
    a. Analiza business-ului
    b. Comportamente, personas și target market
    c. Competiție și unelte de analiză
    d. KPI-uri și soluții de analytics
3. Crearea, auditarea și optimizarea site-ului tău
    a. ???
4. Copywriting, Content Writing & Content Marketing
    a. ???
5. SEO (Search Engine Optimization)
    a. Introducere în SEO
    b. Motoare de căutare și cum funcționează
    c. Keyword research
    d. On-page SEO
    e. Link building
    f. SEO Tehnic
    g. Content marketing
    h. Unelte de SEO
6. PPC (Pay Per Click Advertising)
    a. Introducere în PPC
    b. Google Ads
    c. Bing Ads
    d. Yandex Ads
    e. Facebook / Instagram Ads
    f. TikTok Ads
    g. LinkedIn Ads
    h. X / Twitter Ads

i. Pinterest Ads
j. Reddit Ads
k. Retargeting

7. Display Advertising și campanii de imagine
   a. ???
8. Social Media Marketing
   a. Introducere în SMM
   b. YouTube
   c. TikTok
   d. Facebook
   e. Instagram
   f. X / Twitter
   g. LinkedIn
   h. Reddit
   i. Pinterest
   j. Quora
   k. Mastodon
9. Influencer Marketing
   a. ???
10. Referral & Affiliate Marketing
    a. ???
11. Email & Permission Marketing
    a. ???
12. Marketplace & Mobile App Marketing
    a. ???
13. B2B Marketing
    a. ???
14. AI, automatizare și tehnologie emergentă în marketing
    a. ???
15. Tactici de marketing pentru eCommerce
    a. Platforme de eCommerce
    b. Funcționalități de eCommerce
    c. Shopping marketplaces
    d. Comparatoare de prețuri
16. Tactici de marketing pentru SaaS
    a. Business reviews
    b. Funcționalități de eCommerce
17. Tactici de marketing pentru brick & mortar
    a. Google Maps & Google My Business
    b. TripAdvisor
18. Business strategy
    a. Strategia și tacticile de business
    b. Cum să setezi prețurile
    c. Product-market fit
    d. Internaționalizare
19. Growth hacking
    a. Achiziție și canale de inbound traffic
    b. Calificarea traficului
    c. A/B Testing și experimentare
    d. CRO și optimizarea landing page-urilor
    e. Onboarding, retenție, repeat business
    f. KPI-uri și măsurare

Resurse de Networking & Cyber Security

1. Introducere în IT, rețelistică și securitate
    a. ???
2. Rețelistică
    a. Dispozitive din rețea
    b. Servicii și aplicații de rețea
    c. DHCP
    d. DNS
    e. Network Address Translation
    f. WAN
    g. Cablare
    h. Topologii de rețea
    i. Infrastructură
    j. Protocoale: IPv4 vs IPv6
    k. Routing
    l. Subnetting
    m. Virtualizare
    n. Implementare
    o. Monitorizare și forensics
    p. Configurare
    q. Autentificare
    r. Troubleshooting
3. Sisteme de operare
    a. Linux / Unix
    b. Windows
    c. MacOS / iOS
    d. Android
4. Securitate cibernetică
    a. Criptografie
    b. Vulnerabilități
    c. Incident response & discovery
    d. Threat classification
    e. Management-ul protocoalelor
    f. Management-ul log-urilor
    g. Atacuri de rețea
    h. Atacuri de aplicație
    i. Atacuri la adresa oamenilor
    j. Hardening
    k. Unelte de securitate
    l. Certificări
5. Securitate în Cloud
    a. Concepte de bază pentru securitate în Cloud
    b. Securitate pentru Amazon Web Services
    c. Securitate pentru Google Cloud
    d. Securitate pentru Azure
    e. Securitate pentru cloud-uri private
    f. Securitate pentru alte sisteme cloud
6. Limbaje de programare
    a. Python
    b. Go
    c. Rust

    d. JavaScript
    e. C++
    f. Bash / PowerShell

Management

1. Workflow, SCRUM și Project Management
    a. ???
2. Management & Leadership
    a. ???
3. Product Management
    a. ???
4. Antreprenoriat și startup-uri
    a. Introducere în antreprenoriat
    b. Product-market fit
5. Sfaturi pentru recrutori
    a. ???

Alte resurse digitale

1. Cum să te angajezi mai ușor
    a. ???
2. Freelancing
    a. ???
3. Testare manuală (MQA) și automată (AQA)
    a. Fundamentele testării
    b. Tehnici de testare funcțională
    c. Tehnici de testare non-funcțională
    d. Alte tehnici de testare
    e. Automatizare de front end
    f. Automatizare de back end
    g. Automatizare mobilă
    h. Monitorizare și log-uri
    i. Tehnici de testare headless
    j. Integrare în sisteme de CI/CD
4. Știință și tehnologie
    a. ???
5. Limba Engleză
    a. ???
6. Sfaturi generale și de viață
    a. ???