Coding(Links)

https://www.codecademy.com/

https://www.freecodecamp.org/

Computer Science (Just link)

https://teachyourselfcs.com/

Technology / IT (Just links)

https://capacitateparaelempleo.org/

https://www.cybrary.it/

https://mva.microsoft.com/

https://training.linuxfoundation.org/resources/free-courses/

Languages (Just Link)

https://www.duolingo.com/

Books (Just links)

https://github.com/EbookFoundation/free-programming-books/blob/master/free-programming-books.md

http://freecomputerbooks.com/

Accesibilidad

- Accessibility Guidelines

Algoritmos

- Khan Academy: Algorithms
- GeeksforGeeks Fundamentals of Algorithms
- Algorithm Visualizer
- Coursera Algorithms, Part I
- Coursera Algorithms, Part II
- Algorithms: Design and Analysis, Part 1
- Algorithms: Design and Analysis, Part 2

Big-O

- Big-O notation explained by a self-taught programmer
- Big-O is easy to calculate, if you know how
- A beginner's guide to Big O notation
- Algorithms in plain English: time complexity and Big-O notation
- Big-O Cheat Sheet

Angular

- scotch.io's Getting Started with Angular 2
- Fundamentals of Angular - Tour of Heroes.

API

- What is an API? In English, please

Bases de Datos

- Relational Databases for Dummies

SQL

- Khan Academy - Introducción a SQL: consulta y gestión de los datos
- SQLZOO: Learn SQL using: SQL Server, Oracle, MySQL, DB2, and PostgreSQL.
- SQLBolt: Learn SQL with simple, interactive exercises
- Udacity's Intro to Relational Databases
- Stanford's Self-Paced DB Courses

MongoDB

- An Introduction to MongoDB
- learnyoumongo: A workshopper for MongoDB
- M101JS: MongoDB for Node.js Developers
- Introduction to MongoDB using the MEAN Stack

Browsers

- Round-up of Web Browser Internals Resources

Charlas Recomendadas

- Raquel Vélez: Evolution of a Developer | JSConf EU 2014
- Philip Roberts: What the heck is the event loop anyway? | JSConf EU 2014
- The myth of the "Real JavaScript Developer" – Brenna O'Brien / Front-Trends 2016
- Anjana Vakil: Learning Functional Programming with JavaScript - JSUnconf 2016
- Real Software Engineering by Glenn Vanderburg
- How To Teach Yourself Code (ft. Quincy Larson)
- Computer Science vs Self-Taught vs Coding Bootcamp (ft. Quincy Larson)

Coding Challenges

- Codewars
- HackerRank
- exercism.io
- CodeEval
- Topcoder

- Project Euler

Coding Interviews Preparation

- HackerRank's Cracking the Coding Interview
- Topcoder’s Data Science Tutorials
- Hacking a Google Interview
- HackerEarth Academy
- HiredInTech
- Firecode.io
- InterviewBit
- Pramp
- GeeksforGeeks Practice

Computación

- 40 Key Computer Science Concepts Explained In Layman’s Terms

CSS

Introductorios

- CSS Floats Explained By Riding An Escalator
- Code Briefing: CSS positioning explained by building an ice cream sundae
- MarkSheet
- HTML Dog’s CSS Tutorials
- CSS Reference
- Learn CSS Layout
- Learn Enough CSS & Layout to Be Dangerous

Avanzados

- Scalable and Modular Architecture for CSS: A flexible guide to developing sites small and large.

Posicionamiento

- CSS Positioning Explained By Building An Ice Cream Sundae
- Learn CSS positioning by building an ice cream sundae (interactivo)

Performance

- Writing efficient CSS

Flexbox

- How Flexbox works—explained with big, colorful, animated gifs
- Even more about how Flexbox works—explained in big, colorful, animated gifs
- A Complete Guide to Flexbox

- Flexbox Zombies
- A Visual Guide to CSS3 Flexbox Properties
- Flexbox Defense
- Flexbox Froggy
- A Complete Guide to Flexbox (Chris Coyier)

Grid

- Free Grid Course
- A Complete Guide to Grid
- Grid Garden

Generadores

- Loading.io: Build Your Ajax Loading Icons with SVG / CSS / GIF

Efectos

- iHover
- Hover.css

Otros

- Emoji-CSS
- rscss: A set of simple ideas to guide your process of building maintainable CSS

Cursos

- Harvard’s CS50x: Introduction to Computer Science
- Harvard’s CS50's: Introduction to Game Development
- Harvard’s CS50's AP®: Computer Science Principles
- Harvard’s CS50's: Web Programming with Python and JavaScript
- Harvard’s CS50's: Mobile App Development with React Native
- Harvard’s CS50's: Computer Science for Business Professionals
- Introduction to Linux
- Frontend Masters Crash Course
- University of Helsinki’s Programming MOOCs
- From NAND to Tetris: Building a Modern Computer From First Principles

Otros

- The 50 best free online university courses according to data

DevOps

Docker

- Get Started with Docker
- Learn Docker & Containers using Interactive Browser-Based Labs
- Node With Docker - Continuous Integration and Delivery

- Node Hero - How to Deploy Node.js with Heroku or Docker

DevTools

Chrome

- Advanced Chrome DevTools
- CodeSchool's Explore and Master Chrome DevTools

Firefox

- Firefox Developer Tools

Diseño Web

- Hack Design: Learn at your own pace. With articles, videos, and tutorials curated by some of the world's best designers
- Design Principles

Editor de Texto

Atom

- Atom Flight Manual
- Atom for Web Developers
- Atom treasures: a list of Atom plugins I can't live without
- Atom Keyboard Shortcuts

General

- Learn Enough Text Editor to Be Dangerous

Estudiantes

- GitHub Student Developer Pack
- Free for students: Professional developer tools from JetBrains
- Free Developer Offers | Visual Studio

Estructuras de Datos

- Data Structures in 5 Minutes (YouTube)
- Itsy Bitsy Data Structures: super simplified examples of many of the common data structures written in easy to read JavaScript

Git

Tutoriales

- git - the simple guide
- Learn Git Branching
- Tower's Git & Version Control Tutorials
- Atlassian's Git Tutorials
- Learn Enough Git to Be Dangerous
- Git Immersion
- A Hacker's Guide to Git

GitHub

- Introduction to GitHub
- GitHub Guides

Otros

- Oh shit, git!: solucioná los problemas más comunes
- GitHub's Git Cheat Sheet
- Tower's Version Control Best Practices
- Git from the inside out

Guías sobre desarrollo web

- CodeSchool's Beginner's Guide to Web Development
- Web Field Manual
- HTML and CSS Is Hard: A friendly web development tutorial for complete beginners

HTML5

- HTML5 Introduction
- HTML Dog's HTML Tutorials
- Shay Howe's Learn to Code HTML & CSS
- Learn Enough HTML to Be Dangerous
- https://internetingishard.com/html-and-css/

HTTP

- How I learned to (stop worrying and) love HTTP
- HTTP: The Protocol Every Web Developer Must Know - Part 1
- HTTP: The Protocol Every Web Developer Must Know - Part 2
- HTTP Status COdes in 60 Seconds

HTTPS

- The First Few Milliseconds of an HTTPS Connection

Íconos

- Flaticon
- Font Awesome
- Devicon: a set of icons representing programming languages
- ionicons: The premium icon font for Ionic Framework
- Glyphicons
- Foundation Icon Fonts
- Material Design Icons
- Elusive Icons

Inteligencia Artificial

Machine Learning

- Machine Learning
- Udacity's Intro to Artificial Intelligence: Learn the Fundamentals of AI

Imágenes

- Unsplash: free high-resolution photos
- Stocky: download free photo, video, graphics and music for commercial and personal use
- Pexels: free stock photos
- Burst
- Unsplash It: beautiful placeholders using images from unsplash
- LoremFlickr: placeholder images for every case, web or print, on almost any subject, in any size.
- placehold.it: a quick and simple image placeholder service.

Linux

- Guru99's Free Linux Tutorials

Lecturas Recomendadas

- 20 Things I Learned About Browsers and the Web
- Adrian KosmaczewskiFollow: Ser Programador Después De Los 40
- Firehose Blog: The Key To Accelerating Your Coding Skills Passing the Inflection Point and Becoming a Self-Reliant Web Developer
- Jr. Developers #1: Pull Requests & You
- Firehose Blog: 35 Bad Programming Habits You Should Drop Right Now

Libros

- 12 Books Every JavaScript Developer Should Read
- Front-End Handbook
- Packt Free Learning (1 eBook gratuito por día)

Git

- Pro Git

JavaScript

- Practical JavaScript
- Eloquent JavaScript
- You Don’t Know JS: A book series on JavaScript
- Programming JavaScript Applications
- Simplified JavaScript Jargon
- Learning JavaScript Design Patterns
- Human JavaScript
- JavaScript Enlightenment
- JavaScript Allongé, the “Six” Edition
- Speaking JavaScript
- JSbooks: muchos libros gratuitos para descargar

ES6

- Understanding ECMAScript 6
- Exploring ES6: Upgrade to the next version of JavaScript
- Setting up ES6
- Exploring ES2016 and ES2017

Programación Funcional

- Professor Frisby’s Mostly Adequate Guide to Functional Programming
- Functional Programming in Javascript
- C9 Lectures: Dr. Erik Meijer - Functional Programming Fundamentals

MEAN Stack

- Make A Real-Time Chat Room using Node Webkit, Socket.io, and MEAN

Patrones de Diseño

MVC

- Model-View-Controller (MVC) Explained Through Ordering Drinks At The Bar
- Model-View-Controller (MVC) Explained – With Legos
- What Are The Benefits of MVC?
- Model–view–controller

Podcasts

General

- CodeNewbie

- This Developer’s Life: a personal and sometimes emotional look into the lives of web developers
- Hanselminutes Podcast by Scott Hanselman: Scott brings on prestigious guests for each episode and discusses their work and how it is influencing the world of tech and development
- On Computing: Grady Brooch uses IEEE Software magazine as a reference in order to discuss the effect that computing is having on our species
- Giant Robots Smashing Into Other Giant Robots: a weekly podcast from Thoughtbot discussing the business of great software products
- The Web Ahead: Conversations with world experts on changing technologies and future of the web. The Web Ahead is your shortcut to keeping up

Software Engineering

- Software Engineering Radio
- Software Engineering Daily

JavaScript

- JavaScript Air: the live broadcast podcast all about JavaScript
- JavaScript Jabber: a weekly discussion about JavaScript, front-end development, community, careers, and frameworks.
- FiveJS: the latest news in the JavaScript community

Node.js

- NodeUp: A Node.js Podcast

FLOSS / Open Source

- The Changelog: Open Source moves fast. Keep up
- FLOSS Weekly

Programación

- The Single Biggest Mistake Programmers Make Every Day
- The Single Biggest Mistake Programmers Make Every Day

Functional Programming

- An Introduction to Functional Programming

JavaScript

- JavaScript For Cats
- Udacity's JavaScript Basics
- Essential JavaScript Links
- A Dive Into Plain JavaScript
- MDN’s A re-introduction to JavaScript (JS tutorial) - Mozilla Developer Network
- MDN’s Introduction to Object-Oriented JavaScript

- HTML Dog's JavaScript Tutorials
- The Two Pillars of JavaScript—Part 1: Prototypal OO
- The Two Pillars of JavaScript—Part 2: Functional Programming
- Common Misconceptions About Inheritance in JavaScript
- Learning Advanced JavaScript
- JavaScript: The Right Way
- SuperHero.js
- JavaScript Garden: a growing collection of documentation about the most quirky parts of the JavaScript programming language

jQuery

- Try jQuery: Learn the basic building blocks of jQuery

JavaScript ES6

- How to Learn ES6
- JavaScript ES6

Node.js

- The Art of Node
- Learn Node.js: A free interactive course for Node beginners
- Node Hero - Getting Started With Node.js Tutorial
- The Node Beginner Book
- Felix's Node.js Guide
- NodeSchool: Open source workshops that teach web software skills
- First Node App
- Introduction to Node.js
- Server-side Development with NodeJS
- Node JS Architecture – Single Threaded Event Loop

Express.js

- Express.js

npm

- Getting Started
- Introduction to npm
- Node Hero - Using NPM: Tutorial

React

- Learning React? Start small.
- React Tutorial for Beginners
- Start learning React
- Intro to the React Framework
- Create Apps with No Configuration
- React/Redux links: curated tutorial and resource links on React, Redux, ES6, and more

Redux

- Understanding Redux: The worlds easiest guide to beginning redux

Reactive Programming

- An Introduction to Reactive Programming

Otros

- You Might Not Need jQuery: Examples of how to do common event, element, ajax and utility operations with plain javascript
- You Might Not Need JavaScript: Examples of common UI elements and interactions with HTML and CSS alone

Recursos útiles para los proyectos

- Can I Use: provides up-to-date browser support tables for support of front-end web technologies on desktop and mobile web browsers
- Modernizr
- Normalize.css

Referencias

- Mozilla Developer Network

Regex

- RegexOne
- RegExr
- regex101

Seguridad

Criptografía

- How Encryption Works In Your Web Browser
- An introduction to cryptography and cryptanalysis

Ingeniería Reversa

- Reverse Engineering for Beginners (libro)

Terminal

- The Command Line Crash Course
- An Introduction to the Linux Terminal
- Learn Enough Command Line to Be Dangerous
- Conquering the Command Line: Unix and Linux Commands for Developers
- The Bash Guide

- bash-guide
- LinuxCommand.org
- explainshell.com: write down a command-line to see the help text that matches each argument

Técnicas de Estudio

- The Easy Way To Learn Hard Stuff
- Learn Faster with The Feynman Technique
- How To Learn Technical Things

UI

- Open color: a color scheme for UI design
- coolors: color schemes generator
- Adobe's Color Wheel
- 147 colors: grid with the CSS named colors
- Material Design Color Palette Generator
- HTML Color Codes: HTML color codes, Hex color codes, RGB and HSL values, color chart and HTML color names
- PALX: Automatic UI Color Palette Generator

Universidades

- University Of The People
- Open Source Society University: Path to a free self-taught education in Computer Science

Utilidades

- Really Simple HTTP Server with Python
- MongoDB Database-As-A-Service (500Mb gratis)

UX

- edX's Introduction to User Experience

Visualización de Datos

D3

- Learn D3.js Basics By Planting A Vegetable Garden

Challenges!

1. #100DaysOfCode
2. #180DaysOfCode
3. #180WebsitesIn180Days

4. #1yearOfCode
5. FreeCodeCamp
6. CodeAcademy
7. Coderbyte
8. Codehalf
9. DailyCoding

Technical Development Guide

This guide provides tips and resources to help you develop your technical skills (academically and non-academically) through self-paced, hands-on learning.

This guide is intended for Computer Science students seeking an internship or university grad role at Google.

What this guide is for

- You can use this guide to determine which courses to take, but be sure stay on track with your courses required for your major to graduate.
- We encourage you to learn more outside of this guide. The more you know, the better!
- The online resources we've cited aren't meant to replace courses available at your university, but they may help supplement your education or provide an introduction to a topic.
- The information and recommendations in this guide were gathered through our work with students and candidates in the field. It is a work-in-progress, a living document, so be sure to periodically check back for updates.

Note: Following the recommendations in the guide does not guarantee a job at Google.

How to use this guide

- The guide lists topics and resources in a rough progression, from possible places to begin if you have little or no technical skills, to resources for those with increasing skills, to ways to gain exposure in the Computer Sciences field.
- You can use any of the resources you want, in any order.

Recommendations and Resources

Take an "Introduction to CS" course Focus on basic coding instructions.

Online resources:

- Introduction to Computer Science, Udacity

Learn to code in (at least) one object-oriented programming language (C++, Java®, Python®) Online resources for beginning programmers:

- Java Programming: An Introduction to Software, Duke University, Coursera

- Learn to Program: The Fundamentals, University of Toronto, Coursera
- Introduction to Programming in Java, MIT
- Google's Python Class
- Introduction to Interactive Programming in Python, Rice University, Coursera

Online resources for more experienced programmers:

- Java Programming: Data Structures and Beyond, University of California San Diego, specialization on Coursera
- Design of Computer Programs, Udacity
- Learn to Program: Crafting Quality Code, University of Toronto, Coursera
- Introduction to Programming Languages, Brown University

Learn other programming languages Add to your repertoire:

- JavaScript®
- CSS & HTML
- Ruby®
- PHP®
- C®
- Perl®
- Shell® script
- Lisp®
- Scheme®

Online resources:

- Codecademy

Test your code Learn how to catch bugs, create tests, and break your software.

Online resources:

- Software Testing, Udacity
- Software Debugging, Udacity

Develop logical reasoning and knowledge of discrete math Online resources:

- Mathematics for Computer Science, MIT
- Introduction to Mathematical Thinking, Stanford, Coursera
- Probabilistic Graphical Models, Stanford, Coursera
- Game Theory, Stanford and University of British Columbia, Coursera

Develop a strong understanding of algorithms and data structures Learn about fundamental data types (stack, queues, and bags), sorting algorithms (quicksort, mergesort, heapsort), data structures (binary search trees, red-black trees, hash tables), and Big O.

Online resources:

- Introduction to Algorithms, MIT
- Algorithms Part 1 & Algorithms Part 2, Princeton, Coursera

- List of Algorithms, Wikipedia
- List of Data Structures Wikipedia
- Book: The Algorithm Design Manual, Steven S. Skiena

Develop a strong knowledge of operating systems Online resources:

Computer Science 162, UC Berkeley, YouTube

Learn artificial intelligence and machine learning Online resources:

- Machine Learning Engineer nanodegree, Udacity
- Deep Learning, Udacity
- Introduction to Robotics, Stanford University
- Machine Learning, Stanford University

Learn Android development Online resources:

- Google Developer Training for Android, on Udacity

Learn web development Online resources:

- Google Developer Training for Web, on Udacity

Learn other developer skills Online resources:

- Google Developer Training site

Learn cryptography Online resources:

- Cryptography, Stanford, Coursera
- Applied Cryptography, Udacity

Work on projects outside of the classroom Create and maintain a website, build your own server, or build a robot.

Online resources:

- Capstone project: Analyzing (Social) Network Data - scroll down to bottom of page,

UCSD, Coursera

- Capstone project: Java Programming: A DIY Version of Netflix and Amazon Recommendation Engines, Duke University, Coursera
- Project Directory, Apache
- Google Summer of Code Project Archive

Work on a small piece of a large system (codebase), read and understand existing code, track down documentation, and debug GitHub is a great way to read other people's code or contribute to a project.

Online resources:

- GitHub®
- Kiln™

Work on projects with other programmers This will help you improve your ability to work well in a team and enable you to learn from others.

Practice your algorithmic knowledge and coding skills Practice your algorithmic knowledge through coding competitions like CodeJam or ACM's International Collegiate Programming Contest.

Online resources:

- CodeJam
- ACM ICPC

Become a teaching assistant Helping to teach other students will help enhance your knowledge of the subject matter.

Gain internship experience in software engineering Find Google's internships in Engineering and Technology on our Students site.

Online resource to prepare to interview for software engineering positions, including for internships:

- Mastering the Software Engineering Interview, UCSD, Coursera