# LIST OF AWESOME LEARNING RESOURCES

#### COMPETITIVE PROGRAMMING

- HackerRank Solve code challenges to prepare for programming interviews.
- <u>HackerEarth</u> Solve code challenges to help companies find innovative solutions for their businesses.
- CodeChef Non-profit competitive programming platform.
- TopCoder Participate in code challenges and help solve real world problems.
- CodeForces Russian website dedicated to competitive programming.
- ProjectEuler Solve computational and mathematical problems using your programming skills.
- <u>Spoj</u> Programming contests with online judging system.
- InterviewBit A platform to learn and practice coding interview questions.
- <u>VisuAlgo</u> Visualizing data structures and algorithms through animation.
- <u>LeetCode</u> Develop programming skills for your next interview.
- FireCode An online coding interview preparation.
- <u>CodeWars</u> Code challenges platform to level up your skills.
- CodinGame Learn to code by playing games.
- <u>CodeForces</u> Online platform that hosts competitions and problem sets
- <u>DailyProgrammer</u> Solutions to programming challenges, peer reviewed with community feedback.
- CodeFights Practice programming and land a job.
- <u>UVa</u> Programming contests with online judging system.
- <u>Stanford ACM ICPC</u> Stanford <u>Notebook</u> provides printable templates usable during online/onsite contests.
- Exercism Solve programming challenges from your terminal.
- <u>DailyCodingProblem</u> Get exceptionally good at coding interviews by solving one problem every day.
- acmp.ru Russian programming contests
- <u>Timus Online Judge</u> Programming contests with online judging system.
- DMOJ: Modern Online Judge contest platform and archive of programming problems
- Rose Code Programming challenges with leaderboards and blog posts
- <u>Coderbyte</u> Programming challenges and specific routes to help learn specific skills
- Code Golf Programming challenges with individual leaderboards for problems
- <u>Daily Coding Problem</u> Get emailed a new coding problem every day
- Halite Create AI to face off against other people's AI. More specialized on AI

• Advent of Code - A yearly set of coding challenges that published with leaderboards

## WEB DEVELOPMENT

- <u>Learn Enough to Be Dangerous</u> Free online coding tutorials on JavaScript, Ruby, Rails, CSS and more.
- FreeCodeCamp Coding tutorials and challenges.
- <u>Thimble</u> Free online code editor, web server, web browser & developer tools.
- <u>NodeSchool</u> Open source workshops that teach web software skills.
- The Odin Project A full free open source coding curriculum.
- <u>Egghead</u> Video tutorials on popular JavaScript frameworks.
- <u>Codecademy</u> Free and premium interactive tutorials for various languages.
- <u>CodeSchool</u> Combination of video and interactive tutorials.
- MDN web docs Web development articles by Mozilla.
- W3Schools Tutorials on HTML, CSS, JavaScript and more.
- <u>Eloquent JavaScript</u> An online book about JavaScript.
- <u>Coder-Coder</u> Tutorials on Web Development from basics including HTML, CSS, JavaScript and more.
- <u>CodeCraft</u> Provide Web Development Courses on JavaScript, AngularJS, Angular 5 for free.
- <u>Scrimba</u> Provides Web Development Courses with a unique feature of live interaction with the instructor's code.
- <u>FrontendMasters</u> In-depth and advanced video tutorials on Frontend Devlopment from experts in the industry.

## MOBILE DEVELOPMENT

- <u>Udacity Android Nanodegree</u> Students can also apply for <u>scholarship</u> given by Google.
- Android Developer Training Range of courses to help you build Android apps.
- <u>Vogella</u> Tutorials about Android development.
- Android Hive Android tutorials blog.
- <u>iOS development</u> Build your first iOS app with an Udacity course.

#### **DEVOPS**

- <u>DevOps Bootcamp</u> Course dedicated to teach core software development and systems operation skills.
- Google IT Support Course Google course to prepare you for a job in IT support.

#### DATA SCIENCE

- <u>Kaggle</u> Data science competitive platform.
- <u>DataQuest</u> Learn data science with your browser.
- DataCamp Learn data science online.
- <u>DrivenData</u> Participate in data science competitions and help organizations.
- Analytics Vidhya Training and Q&A platform based around data science.
- <u>fast.ai</u> Deep Learning with only prerequisite being general coding skills.
- TunedIT Data Mining competitions.
- <u>Data Science Central</u> the online resource for big data practitioners.
- KPMG Data Science Virtual Internship learn data science from a Big 4 accounting firm and how it's used in industry.

## ARTIFICIAL INTELLIGENCE

- <u>Siraj Raval</u> YouTube channel with tutorials about Al.
- <u>Sentdex</u> YouTube channel with programming tutorials.
- <u>Two Minute Papers</u> Learn Al with 5 mins videos.
- Andrej Karpathy Old blog about Al, now posting on Medium.
- iamtrask Machine Learning blog.
- <u>colah's blog</u> Blog about neural networks.
- Google Machine Learning Course A crash course of machine learning taught by Google Engineers
- Google Al- Learn from ML experts at Google

## **COMPUTER SCIENCE**

- BaseCS Explains computer science basics in easy-to-digest articles. Also in podcast format.
- <u>Tutorials Point</u> tutorials for technologies like web, mobile and many more.
- Introduction to Computer Science CS101 introduction to computer science in python language.

## **OPEN SOURCE**

- Up For Grabs Start exploring open source projects and get involved in them.
- 24 Pull Requests Yearly initiative to encourage developers to send 24 pull requests during December.
- <u>HacktoberFest</u> Similar to 24PullRequests, gives swag for 4 accepted pull requests.

- OpenHatch Non-profit providing tools for new open source contributors.
- First Timers Only Beginners-friendly open source projects.
- Your First PR Helps you make a contribution by showcasing great starter issues on Github.
- Awesome For Beginners A list of awesome beginners-friendly projects.
- <u>CodeTriage</u> Pick your favorite projects to receive a different issue in your inbox every day.
- Open Source Friday Helps you find a project to contribute to.

## **INFOSEC**

#### How to start? - blogs

- <u>Beginner Bug Bounty Hunters resources</u>- Collection of resources to build up the basics of Web Application Security
- Getting Started in Bug Bounty Hunting What You Should Know Before Starting to learn about Bug Bounty Hunting?
- Getting started in Bug Bounty How to get started in Bug Bounties
- How to get started with bug Bounty? What you need to learn before getting started with bug bounty
- METHODOLOGY, TOOLKIT, TIPS & TRICKS A complete bug bounty blog for beginners

#### Recon

- <u>Recon by Sahil Ahamad</u> Blog post on reconnaissance processes for web applications security testing
- Recon by Adrien What tools I use for my recon during Bug Bounty

## MOOCS

- <u>Udacity</u> Free and paid online classes.
- Coursera Courses from schools and universities like Stanford and Yale.
- <u>Udemy</u> Online learning and teaching platform.
- edX Free online courses from institutions like Harvard, MIT, Microsoft and more.
- <u>Codecademy</u> Online learning platform for coding.
- MIT OPENCOURSEWARE Browse and learn with free MIT courses' material.
- <u>Microsoft Virtual Academy</u> Free courses on IT basic concepts and Microsoft products and services.
- Awesome Courses List of awesome university courses for learning Computer Science.
- Lynda Online learning platform.

- Stanford Online Stanford's courses platform.
- Pluralsight Paid learning platform made to help you build your career or land a job.
- Khan Academy Free online learning platform.
- Sololearn Learn coding from the ground up for free!! (also available on android)
- Y Combinator Learn how engineering works at a Y Combinator startup
- MOOC.fi Free courses from the University of Helsinki's Department of Computer Science.

## FELLOWSHIPS/SCHOLARSHIPS

- <u>Developer Scholarship from Google</u> Link for Indian students (Others click <u>here</u>).
- Scholarship Opportunities at Google's scholarship opportunities.
- Microsoft Scholarship Program For students at US/Canada/Mexico only.
- Thiel Fellowship for young innovators Intended for students under 23yo and offers a total of \$100,000 and guidance to drop out of school and pursue other work.
- The Facebook Fellowship Program Designed to encourage promising doctoral students who
  are engaged in areas related to computer science.
- NVIDIA Graduate Fellowships Fellowship for AI,ML students.
- S.N. Bose Scholars Program For Indian Students.
- Richard E. Merwin Student Scholarship For IEEE members.
- The Data Science for Social Good Fellowship It is a University of Chicago summer program to train aspiring data scientists to work on data mining, machine learning, big data, and data science projects with social impact.
- <u>The Data Incubator</u> The Data Incubator is an 8-week educational fellowship preparing students with Master's degrees and PhDs for careers in big data and data science.
- Kleiner Perkins Fellow Engineering Kleiner Perkins Fellows program matches accepted fellows up with their partnering Silicon Valley startups over the summer.
- <u>Cern Openlab Summer Student Programme</u> CERN openlab is a 2 month long student program
  where students complete assigned projects with CERN members during the summer.
- HackNY Fellow Fellowship that matches students with New York City Startups
- Adobe India Women-in-Technology Scholarship Adobe Scholarship for encouraging women to showcase their excellence in computing and technology.
- <u>Grace Hopper Scholarship</u> A Scholarship by USC Girls in Tech.
- WeTech Qualcomm Global Scholarship A scholarship for women in technology by Qualcomm and IIE.
- Emeritus fellowship For the superannuated teachers.
- Junior research fellowship in science, humanities and social science It is for qualifiers of UGC and UGC-CSIR tests.

- <u>UGC research fellowships in science for meritorious students</u> It is to promote quality research in University/Departments.
- <u>Junior research fellowship in engineering and technology</u> It is for those who wish to pursue Ph.D. degree in engineering and technology.
- <u>Swarnajayanti fellowships scheme</u> For providing special assistance and support to talented young scientist.

## PROGRAMMING EVENTS

- Google Summer of Code A global program focused on bringing more student developers into open source software development.
- Google CodeJam Google's largest coding competition.
- Google Kickstart Many online rounds to give students the opportunity to develop their coding skills and pursue a career at Google.
- Google HashCode Programming competition organized by Google for students and industry professionals across Europe, the Middle East and Africa.
- Google Code-in A competition for pre-university students(13 to 17 years old) to introduce themselves to the world of open source by doing small tasks for various open source projects.
- <u>ACM-ICPC</u> The International Collegiate Programming Contest is an algorithmic programming contest for college students.
- <u>Facebook HackerCup</u> Annual programming contest organized by Facebook.
- <u>List of Open Source Internship Programs</u> Includes <u>Rails Girls Summer of Code</u> and <u>Outreachy</u>.
- Hactoberfest Organized by Digital Ocean in October.
- IEEEXtreme Annual 24 hour long team contest for IEEE members.

## **HACKATHONS**

- Devpost Online or in-person hackathons browsing platform.
- <u>hackathon.io</u> Browse in-person hackathons.
- Hackalist List of upcoming hackathons.
- <u>AngelHack</u> Hackathon planning organization.
- <u>Hackevents</u> Hackathons search engine.
- Yelp Dataset Challenge The challenge is a chance for students to conduct research or analysis on our data and share their discoveries with Yelp.
- <u>hack.summit()</u> Virtual conference where you can learn from the world's most renowned programmers.

- <u>Major League Hacking Event Page</u> A list of a ton of events that are sponsored by the official hackathon league
- <u>Microsoft Imagine Cup</u>-Bring your tech idea to life with the Imagine Cup and make a difference through creativity, collaboration, and competition.

## **GENERAL OPPORTUNITIES**

- Github Student Pack Get free access to the best developer tools in one place.
- Visual Studio Dev Essentials Free learning resources and programming tools.

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COMPETE TRACKS COMMUNITY HELP CENTER **ABOUT** 









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