

Inishan's blog

An awesome list for competitive programming!

By [Inishan](#), 5 years ago,

This is a project I started from late January 2016.

My motive is that: Although there's fantastic information out there, I think they're still spread all over the place. Therefore, in my opinion it would probably be cool if there's an [awesome list](#) for competitive programming! (*It's now featured on the main list!*)

I'm actively updating the list here: <https://github.com/lnishan/awesome-competitive-programming>

Awesome Competitive Programming



A curated list of awesome [Competitive Programming](#) , [Algorithm](#) and [Data Structure](#) resources.

Created with a view to connecting people to information, this list below contains a complete collection of all the fantastic resources I've collected over the course of my 11-year competitive programming career. I hope you'll find it useful :)

[What is competitive programming? — Quora](#)

Contributing

→ Pay attention

Contest is running

[NERC Challenge 2020: Marathon](#)

4 days

[Register now »](#)

Before contest

[Educational Codeforces Round 100](#)

([Rated for Div. 2](#)).

17:32:05

[Register now »](#)

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Rating: **803**



Contribution: **0**



Solo_Pie

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#	User	Rating
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Please kindly follow [CONTRIBUTING.md](#) to get started.

You can also contribute by sharing!

Share the list with your classmates, your friends and everyone :)

*By connecting more people to information,
You, are doing not me, but everyone a HUGE favor!*

I really hope that more people can benefit from this list :)

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#	Name
1	ICPC Assiut University Community Training 2019

Awesome curated lists classified by topics.

☆	Name	Description
★★★	Good Blog Post Resources about Algorithm and Data Structures — Codeforces	A collection of fantastic tutorial blog posts written by Codeforces users. Some intriguing ones include Palindromic Trees, Policy Based Data Structures, and a lot more.
★★★	All of the good tutorials found on codeforces — Codeforces	Another good collection of tutorial blog posts written by Codeforces users.
★★★	Data Structures and Algorithms — CodeChef Discuss	A very complete list of competitive programming resources. A must-have in your browser bookmark.
★★★	How to prepare for ACM — ICPC? — GeeksforGeeks	A detailed walk-through of the preparations for ACM-ICPC.

Syllabuses

Find out what topics you need to learn.

☆	Name	Description
★★★	IOI Syllabus	A detailed syllabus on which IOI contestants will be tested. This is still somewhat relevant to ACM-ICPC.
★★★	How to prepare for ACM — ICPC? — GeeksforGeeks	A detailed walk-through of the preparations for ACM-ICPC.

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[-Morass-](#) → [Problem Topics](#)

[Lance_The_Dragon_Trainer](#) → [Why are alts not being banned?](#)

[zeddie](#) → [How to get good in BitMasks questions?](#)

[Stepavly](#) → [Codeforces Round #690 \(Div. 3\) Editorial](#)

[Sanitizer](#) → [How to deal with depression caused by CP?](#)

[pikmike](#) → [Educational Codeforces Round 100 \[Rated for Div. 2\]](#)

[codevelloppy](#) → [Site/Online judge for Data Science / Machine Learning](#)

[Dark_Eyes](#) → [policy based data structure for multiset!](#)

[zakwan_hasan](#) → [help needed in Code Forces round 690 problem F](#)

[vovuh](#) → [Codeforces Round #611 \(Div. 3\) Editorial](#)

[manraj1729](#) → [Setup for Competitive Programming](#)

[caner_cs](#) → [About Wrong Code Violation](#)

[Supermagzzz](#) → [Codeforces Round #690 \(Div. 3\)](#)



☆	Name	Description
★★☆	Programming Camp Syllabus	A list of important topics in competitive programming with exercise problems.
★★☆	Juniors Training Sheet , by Mostafa Saad Ibrahim	Simple problems for newcomers

Tutorial Websites

Awesome websites with great tutorials.

☆	Name	Description
★★★	Topcoder Data Science Tutorials	A list of tutorials written by respected Topcoder members. Many top programmers started learning data sciences from here.
★★★	E-Maxx (Russian), (English)	A tutorial website widely used and referenced in the Russian-speaking competitive programming community. Only a small fraction of the original site is translated into English, but Google Translate would work okay.
★★☆	Algorithms — GeeksforGeeks	A website with a large archive of nicely written articles on different topics. It is a great complimentary resource for algorithm courses.
★★☆	PEGWiki	A website with amazing in-depth wiki-like writeups on many topics. It's far better than those on Wikipedia in my opinion.
★★☆	Notes — HackerEarth	A great crowdsourcing platform for tutorials. Also visit Code Monk .

[vovuh](#) → [Codeforces Round #667 \(Div. 3\) Editorial](#)

[bryabmauricio](#) → [I need help in Emac.](#)

[MikeMirzayanov](#) → [Rule about third-party code is changing](#)

[chokudai](#) → [AtCoder Beginner Contest 185 Announcement](#)

[rkr_725](#) → [Invitation to RECode 15.0](#)

[Kokos](#) → [new: console client for submitting code](#)

[gourang843](#) → [Please help me to come out from this difficult situation!!](#)

[4T-Shirt](#) → [How to add friends?](#)

[ttake0530](#) → [Hitachi Hokudai Lab. & Hokkaido University Contest 2020 has just started!](#)

[Zhdun](#) → [When will Codeforces end? The last mark in the updated ranking history](#)

[kaffan_69](#) → [Can someone please explain this codechef problem!](#)

[Detailed →](#)



☆	Name	Description
★★☆	USA Computing Olympiad (USACO)	Contains several training pages on its website which are designed to develop one's skills in programming solutions to difficult and varied algorithmic problems at one's own pace.
★★☆	basecs	A blog with in-depth, illustrated tutorials on basic algorithms and data structures.
★★☆	Competitive Programming — Commonlounge	Short video tutorials for beginner and intermediate concepts. Advanced tutorials selected from the best ones available on various CP blogs.
★☆☆	OLYMPIADS IN INFORMATICS	An international journal focused on the research and practice of professionals who are working in the field of teaching and learning informatics to talented student.
★☆☆	algotist (Russian)	A Russian website devoted to algorithms of all sorts. Some topics listed on this website seems pretty interesting.
★★☆	演算法筆記 (Algorithm Notes) (Chinese)	One of the most popular tutorial websites among the Taiwanese competitive programming community. The maintainer for this website spends immense efforts on researching algorithms.
★★☆	国家集训队论文 1999-2015 (Papers from Chinese IOI training camps) (Chinese)	Papers from the Chinese IOI training camps. It's interesting for the fact that one can tell different regions emphasize different things.

Open Courses

Consider beginning your competitive programming journey with these awesome courses!



☆	Name	Description
★★☆	Code Monk , by HackerEarth	A fantastic step-by-step tutorial on the essential topics in competitive programming.
★★★	Stanford CS 97SI: Introduction to Competitive Programming Contests	Offers comprehensive lecture slides and a short list of exercise problems.
★★☆	How to Win Coding Competitions: Secrets of Champions	A course by ITMO University on competitive coding on edX.
★★☆	Codechef's Indian Programming Camp	Video Lectures from Codechef's Indian Programming Camp 2016 . Lectures given by top competitive programmers like Sergey Kulik, Kevin Charles Atienza and Anudeep Nekkanti. Primarily focused on exploring these concepts by applying them to actual competitive contest problems.
★★☆	Reykjavik T-414-ÁFLV: A Competitive Programming Course	An awesome course taught by Bjarki Ágúst Guðmundsson (SuprDewd) . These lectures feature neat slides and a nice list of problems to practice.



☆	Name	Description
★★☆	NCTU DCP4631: Problem Solving and Programming Techniques	A course on basic topics featuring good lecture slides.
★★☆	Materials (English) from Arabic Competitive Programming Channel	Some materials (slides & source codes) covering a broad range of algorithmic topics

Open Courses for Algorithms and Data Structures

☆	Name	Description
★★★	prakhar1989/awesome-courses#algorithms	A fantastic list of open courses offered by notable institutions (MIT, Stanford, UC Berkeley ... etc.).
★★★	MIT SMA 5503: Introduction to Algorithms	Lectured by Prof. Charles Leiserson (one of the coauthors of Introduction to Algorithms) and Prof. Erik Demaine (a brilliant professor who has made remarkable breakthroughs in data science), the course offers great materials, accompanied by intuitive and comprehensive analyses.
★★☆	UIUC Algorithm Course	lecture notes, homeworks, exams, and discussion problems covering a broad range of algorithmic topics



Books

A list of recommended books for competitive programming.

☆	Name	Description
★★☆	Competitive Programming , by Steven and Felix Halim	This book contains a collection of relevant data structures, algorithms, and programming tips. It's a well-received book. ... The first edition is free for download (pdf) .
★★☆	Programming Challenges: The Programming Contest Training Manual , by Steven Skiena and Miguel Revilla	This book includes more than 100 programming challenges, as well as the theory and key concepts necessary for approaching them. Problems are organized by topic, and supplemented by complete tutorial material.
★★☆	Competitive Programmer's Handbook , by Antti Laaksonen	An introduction to competitive programming for aspiring IOI and ICPC contestants. Free to download (pdf) .
★★☆	Computational Geometry: Algorithms and Applications , by Mark de Berg, Otfried Cheong, Marc van Kreveld, Mark Overmars	This is a well-written book which covers a broad range of computational geometry problems.
★★☆	The Hitchhiker's Guide to the Programming Contests , by Nite Nimajneb	This book is free for download (pdf) . This book covers various topics relevant to competitive programming.





☆	Name	Description
★★★	プログラミングコンテストチャレンジブック (Japanese) , by 秋葉拓哉, 岩田陽一, 北川宜稔	An absolutely phenomenal book. The contents, organized in a very coherent manner, are nothing short of amazing. ... 培養與鍛鍊程式設計的邏輯腦：世界級程式設計大賽的知識、心得與解題分享 (Chinese Traditional)
★★☆	算法竞赛入门经典 (Chinese) , by 刘汝佳	The Art of Algorithms and Programming Contests (English), 打下好基礎：程式設計與演算法競賽入門經典 (Chinese Traditional)
★★☆	算法竞赛入门经典——训练指南 (Chinese) , by 刘汝佳, 陈锋	提升程式設計的解題思考力—國際演算法程式設計競賽訓練指南 (Chinese Traditional)
★★★	算法艺术与信息学竞赛 (Chinese) , by 刘汝佳, 黄亮	An old-time classic. It's old but the contents in this book are still considered to be very difficult by today's standards.

Books for Algorithms

☆	Name	Description
★★★	Introduction to Algorithms , by Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest and Clifford Stein	Also known as CLRS (taken from name initials), this book is often referred to as the "bible" for algorithms and data structures. It's one of the most popular textbooks for university algorithm courses. This book covered various algorithms and data structures in great detail. The writing is more rigorous and can be difficult to some.



☆	Name	Description
★★☆	Algorithm Design , by Jon Kleinberg and Éva Tardos	This book revolves around techniques for designing algorithms. It's well-organized and written in a clear, understandable language. Each chapter is backed with practical examples and helpful exercises. The chapter on network flow is highly praised by lots. ... The lecture slides that accompany the textbook are available on its official website .
★★☆	The Algorithm Design Manual , by Steven S. Skiena	The book is written in more readable text. Some find it comprehensive than other books. You can also find some good resources (including the author's own video lectures) on its official website .
★★★	Algorithms , by Robert Sedgewick and Kevin Wayne	This book is neatly categorized, coupled with elaborate explanations and fantastic illustrations. It is used in some IOI training camps as a textbook.



Books for Mathematics

☆	Name	Description
★★☆	Discrete Mathematics and Its Applications , by Kenneth H. Rosen	Discrete Mathematics is closely relevant to competitive programming. This book provides comprehensive materials on a wide range of topics including: Logics and Proofs, Sets, Functions, Sequences, Matrices, Number Theory, Recursion, Counting, Probability, Graphs, Trees and Boolean Algebra to name but a few.



☆	Name	Description
★★☆	Concrete Mathematics: A Foundation for Computer Science , by Ronald L. Graham, Donald E. Knuth, Oren Patashnik	The book offers a deeper insight into Discrete Mathematics with more emphases on number-related topics.
★★☆	Linear Algebra and Its Applications , by David C. Lay, Steven R. Lay, Judi J. McDonald	The book does a brilliant job at bridging the gap between a physical system (for scientists and engineers) and an abstract system (for mathematicians).
★★☆	Introduction to Probability , by Charles M. Grinstead, J. Laurie Snell	This is a well-written introductory probabilities book. ... It's free for download (pdf) (released under GNU Free Documentation License).
★★☆	How to Solve It: A New Aspect of Mathematical Method , by G. Polya	An old-time classic. In this book, the author provides a systematic way to solve problems creatively.

Sites for Practice

Good online judge systems / contest platforms to practice.

☆	Name	Description
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☆	Name	Description
★★★	Codeforces	Codeforces is one of, if not, the most popular contest platforms out there. Currently maintained by Saratov State University, it features regular contests and countless awesome original problems. Additionally, every contest provides immediate helpful tutorials (usually) written by the authors themselves. Codeforces also houses a strong and engaging community. All in all, one would indeed learn and improve tremendously here.
★★★	Topcoder	Topcoder has been around since 2001. Rich in history, It's considered to be one of the most prestigious organizations when it comes to technology competitions. Hundreds of SRMs gave birth to an abundant problemset. Problems here are typically more challenging than others and Topcoder therefore appeals to many elite programmers. The annual Topcoder Open (TCO) is also a widely-discussed event.
★★★	Google Code Jam	Google Code Jam is certainly one of the most highly-esteemed programming competitions. The competition consists of unique programming challenges which must be solved in a fixed amount of time. Competitors may use any programming language and development environment to obtain their solutions.
★★★	AtCoder	AtCoder is a new but phenomenal contest platform created by a team of highly-rated Japanese competitive programmers.
★★☆	CodeChef	CodeChef is a non-profit educational initiative of Directi. It's a global competitive programming platform and has a large community of programmers that helps students and professionals test and improve their coding skills. Its objective is to provide a platform for practice, competition and improvement for both students and professional software developers. Apart from this, it aims to reach out to students while they are young and inculcate a culture of programming in India.





☆	Name	Description
★★★	SPOJ	The SPOJ platform is centered around an online judge system. It holds a staggering amount of problems prepared by its community of problem setters or taken from previous programming contests, some of which are great problems for practice (refer to the Problem classifiers section). SPOJ also allows advanced users to organize contests under their own rules.
★★☆	Timus	Timus Online Judge is the largest Russian archive of programming problems with automatic judging system. Problems are mostly collected from contests held at the Ural Federal University, Ural Championships, Ural ACM ICPC Subregional Contests, and Petrozavodsk Training Camps.
★★☆	HDU	HDU is an online judge maintained by Hangzhou Dianzi University. It's home to many classic problems from the Chinese IOI scene.
★★☆	Aizu Online Judge	Aizu online judge is a contest platform and problem archive hosted by The University of Aizu. It has a lot of great problems from programming competitions in Japan.
★★☆	UVA	An old-school problem archive / online judge with rich history. Thousands of problems, including many classic ones, are featured here. However, it is strongly advised that you practice with uHunt following its "Competitive Programming Exercise" section.
★★☆	HackerRank	HackerRank is a company that focuses on competitive programming challenges for both consumers and businesses. HackerRank's programming challenges can be solved in a variety of programming languages and span multiple computer science domains.
★★☆	POJ	POJ is an online judge with many great problems maintained by Peking University. Most Chinese competitive programmers began their journey here. The platform is really dated so mysterious compilation and run-time issues may occur.





☆	Name	Description
★★☆	Project Euler	Project Euler features a stunning set of good math problems. It also hosts a forum where people can discuss.
★★☆	Hackerearth	HackerEarth is a startup technology company based in Bangalore, India that provides recruitment solutions.
★★☆	Caribbean Online Judge	COJ is hosted by University of Informatics Sciences (UCI, by its acronym in Spanish), located in Cuba. Feature ACM ICPC and Progressive contest styles, mostly from Caribbean and Latin American problem setters, also has problem classifier and contest calendar.
★★☆	CS Academy	New in the competitive programming scene, CS Academy is a growing online judge that hosts competitions once every two weeks. It supports live chat, interactive lessons and an integrated online editor (that actually works).
★★☆	Russian Code Cup	Programming competitions powered by Mail.Ru Group. Competition consists of 3 qualification, 1 elimination and 1 final rounds. For each round contestants are given 4-8 problems which must be solved in a fixed amount of time.
★★☆	CodeFights	CodeFights is a website for competitive programming practice and interview preparation. It features daily challenges of varying difficulty, an archive of problems and regular (every 15 minutes) mini-tournaments. Good for beginners.

Problem Classifiers

Sites classifying programming problems.

Choose a category (eg. DP) of interest and practice problems on that topic.



☆	Name	Description
★★★	A2 Online Judge	Mixed
★★★★	Problem Classifier	SPOJ
★★☆	UVa Online Judge	CP Book
★★☆	Codeforces Tags	CF (DP)
★★☆	HackerRank	HackerRank
★★☆	Juniors Training Sheet, by Mostafa Saad Ibrahim	Simple problems for newcomers
★★☆	Lucky貓的 UVA (ACM) 園地 (Chinese)	UVa
★★☆	Topcoder problem archive	List of problems with categories and complexity levels

Contest Calendars

*Calendars for impending programming contests.
(Never miss another contest!)*

☆	Name	Description
★★★★	Programming Contest Calendar — HackerRank	Google Calendar export available
★★☆	clist.by	API available for use
★★☆	Coding Calendar (Android App)	



☆	Name	Description
★★☆	Coder's Calendar: Android App, Chrome Extension, Firefox Add-on	
★★★	CodeHorizon: iOS App, Android App	

Sites for Questions

These are great sites to ask questions.

Paste your codes at [ideone](#), [pastebin](#) or other sites to avoid formatting issues.

☆	Name	Description
★★★	Codeforces	For quick answers, Codeforces is definitely the go-to place to ask about anything competition-related.
★★★	Competitive Programming — Quora	You would typically get more elaborate answers on Quora, but you might not have your questions answered straightaway.
★★☆	Theoretical Computer Science Stack Exchange	This place is generally for the academics, so don't ask questions about contest problems here.

Implementations

Algorithm & Data structure implementations.

☆	Name	Description
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☆	Name	Description
★★★	CodeLibrary , by Andrey Naumenko (indy256)	CodeLibrary contains a large collection of implementations for algorithms and data structures in Java and C++. You may also visit his GitHub Repository .
★★★★	spaghetti-source/algorithm , by Takanori MAEHARA (@tmaehara)	High-quality implementations of many hard algorithms and data structures.
★★★★	kth-competitive-programming/kactl , by Simon Lindholm (simonlindholm) et al.	A phenomenally organized, documented and tested team notebook from KTH Royal Institute of Technology. One of the most well-crafted team notebooks (contest libraries) I've ever seen.
★★☆	jaehyunp/stanfordacm	Stanford's team notebook is well maintained and the codes within are of high-quality.
★★☆	ngthanhtrung23/ACM_Notebook_new , by team RR Watamedata (I_love_Hoang_Yen, flashmt, nguyenhungtam) from National University of Singapore	RR Watamedata represented National University of Singapore for the 2016 ACM-ICPC World Finals. The items in this notebook are pretty standard and well-organized.
★★☆	bobogei81123/bcw_codebook , by team bcw0x1bd2 (darkhh, bobogei81123, step5) from National Taiwan University	bcw0x1bd2 represented National Taiwan University for the 2016 ACM-ICPC World Finals. This notebook contains robust implementations for advanced data structures and algorithms.
★★☆	foreverbell/acm-icpc-cheat-sheet , by foreverbell (foreverbell)	A notebook with some advanced data structures and algorithms including some from the China informatics scene.



☆	Name	Description
☆☆☆	igor's code archive , by Igor Naverniouk (Abednego)	A good notebook by Igor Naverniouk who is currently a software engineer at Google and part of the Google Code Jam team.

Language Specifics

Languages and other miscellaneous knowledge.

C/C++

☆	Name	Description
☆☆☆	Power up C++ with the Standard Template Library — Topcoder: Part 1, Part 2	An introductory tutorial on basic C++ STLs.
☆☆☆	Yet again on C++ input/output — Codeforces	Learn more about C++ I/O optimizations.
☆☆☆	C++ Tricks — Codeforces ... What are some cool C++ tricks to use in a programming contest? — Quora	Plentiful C++ tricks for competitive programming. Note that some should be used with care.
★★★★	C++ STL: Policy based data structures — Codeforces: Part 1, Part 2	Detailed introduction to the extra data structures implemented in GNU C++. The official documentation can be found here .
☆☆☆	C++11 FAQ (English, Chinese, Russian, Japanese, Korean)	A list of FAQs regarding C++11 collected and written by Bjarne Stroustrup, the creator of C++.





Java

☆	Name	Description
★★☆	How to read input in Java — tutorial — Codeforces	Learn how to read input faster. This is a must-read for those who intend to use Java for competitive programming
★★☆	How to sort arrays in Java and avoid TLE — Codeforces	Some tips on how to avoid hitting the worst case of quick sort
★★☆	BigNum arithmetic in Java — Let's outperform BigInteger! — Codeforces	A basic but faster custom BigInteger class
★★☆	EZ Collections, EZ Life (new Java library for contests) — Codeforces	A Java library for contests written by Alexey Dergunov (dalex). ArrayList, ArrayDeque, Heap, Sort, HashSet, HashMap, TreeSet, TreeMap, TreeList and pair classes are implemented

Miscellaneous

☆	Name	Description
★★★	Bit Twiddling Hacks	A huge compiled list of bit manipulation tricks.
★★★	Comparing Floating Point Numbers, 2012 Edition — Random ASCII	Everything you need to know about floating point numbers. A must read especially for geometry topics.





☆	Name	Description
★★☆	Object-Oriented C Style Languages: C++, Objective-C, Java, C# — a side-by-side reference sheet	A detailed side-by-side reference sheet for common syntaxes.

Tools

Awesome tools that will make your life easier.

IDEs

☆	Name	Platform	Description
★★★	Vim	CLI / Cross-Platform	Vim is one of the most popular text editors among advanced programmers. It allows text-editing to be done very efficiently with solely keystrokes. Vim is also highly configurable, extensible and integrates with shells (command lines) really well. The only setback about Vim is that it has a high learning curve for beginners.
★★★	Emacs	CLI / Cross-Platform	Emacs is another popular text editor (or development environment to be more precise). The debate on "Vim vs. Emacs" is constantly brought up due to their popularity. Basically Emacs is more than just a text editor. It has plugins like file managers, web browsers, mail clients and news clients that allows users to performs these tasks directly inside Emacs. Emacs is "heavier" because of this, but it arguably has a relatively easier learning curve for beginners.





☆	Name	Platform	Description
★★★	Far Manager	Hybrid / Windows	Far Manager is the most widely-used editor in the RU/CIS competitive programming community. It's actually a file manager in its bare bones, but you can install FarColorer — a syntax highlighter plugin to program on it. Properly configured, Far Manager allows you to navigate between files very efficiently while writing your codes.
★★★	Code::Blocks	GUI / Cross-Platform	Code::Blocks is the go-to IDE for C/C++. It's a full-fledged, versatile IDE with numerous great features. Code::Blocks is usually provided along with Vim in programming contests.
★★★	IntelliJ IDEA	GUI / Cross-Platform	IntelliJ IDEA is certainly one of the best IDEs for Java. It's used by most competitive programmers who use Java as their main language. Be sure to check out CHelper , a very handy plugin written for programming contests.
★★☆	Sublime Text	GUI / Cross-Platform	Sublime Text is an extraordinary text editor. Packed with powerful and innovative features like Multiple Carets, Minimaps and Command Palletes, it attracts a strong and engaging community. Sublime Text is highly extensible, so be sure to have Package Control installed and explore perhaps one of the largest catalogue of plugins!
★★☆	Eclipse	GUI / Cross-Platform	Eclipse is another good IDE for Java. It's an okay alternative to IntelliJ IDEA (A tad inferior to IDEA by today's standards). Sometimes contests only provide Eclipse for some reason, so this might be a good incentive to try and use Eclipse.





☆	Name	Platform	Description
★★☆	CLion	GUI / Cross-Platform	CLion, produced by JetBrains — the same company who made IntelliJ IDEA, is a powerful IDE for C++. Free educational licenses are available OR you can try out their EAP (Early Access Program) which is still free as of Apr, 2018. You may want to turn off its code inspection feature as it will cause quite a bit of lag.
★★☆	Other IDEs	Mixed	Visual Studio is the IDE to use in case you want to code in C#. ... Both Atom and Visual Studio Code are built with Electron (written in JavaScript) and therefore somewhat resource-hogging. ... CodeLite is a newly rising IDE. Beware that the load-up and project-creation times can be extraordinary.

Personal use

☆	Name	Description
★★★	VisuAlgo	A website featuring a large collection of visualization tools for algorithms and data structures.
★★★	General Practice Helpers: ... CHelper (IntelliJ IDEA) (manual) ... caide (Visual Studio, CodeLite) ... JHelper (AppCode, CLion)	Great tools that parse contests, inline library codes and provide testing frameworks. They save you from spending your precious time on switching windows and copy-pasting back and forth.
★★☆	Codeforces Parsers: ... Codeforces Parser ... GoCF ... cfparser (emacs)	These tools parse Codeforces contest problems and help run sample tests.



☆	Name	Description
★★★	The On-Line Encyclopedia of Integer Sequences (OEIS)	A stunning encyclopedia with a database of countless integer sequences. It also features a powerful search engine. Sometimes a seemingly difficult combinatorics problem could be equivalent to a simple or studied integer sequence.
★★☆	Syntax Highlighters: ... tohtml.com ... markup.su ... hilite.me	Very handy for creating slides or team notebooks with pretty, formatted code snippets. Just copy the highlighted code snippets and paste them in your favorite WYSIWYG (What-You-See-Is-What-You-Get) editor!
★★☆	Code Sharing: ... Ideone.com ... Pastebin.com ... Ubuntu Pastebin	These tools generate semi-permanent pages for code sharing. Very useful especially when you're trying to get someone else to look into your code.
★★☆	Ineffable	A simple command-line grader for local grading.
★★☆	uDebug	A platform that provides expected outputs for user-specified inputs to problems on the UVa Online Judge. Some problems also provide additional test cases for debugging.

Contest Preparation

☆	Name	Description
★★★	polygon	polygon provides a platform and a rich set of tools for professional contest preparation. ... An example: Validators with testlib.h — Codeforces
★★☆	Graph Editor	A fantastic tool to create and visualize graphs.



☆	Name	Description
★★☆	tcframe	A C++ framework for generating test cases of competitive programming problems.
★★★	Virtual Judge (vjudge)	Virtual Judge (vjudge) allows users to create virtual contests with problems from notable problem archives.
★★☆	BNU Online Judge	BNU Online Judge also allows users to create virtual contests.
★★☆	Kattis	Kattis assists in contest preparation (E-mail them for assistance).

Community

Meet the god-like competitive programmers!

Learn helpful tips, tutorials and insights from these people :)

Blogs

Name (Handle)	Blog Name
	Codeforces blogs
Petr Mitrichev (Petr)	Algorithms Weekly
Makoto Soejima (rng_58)	rng_58's blog
Bruce Merry (bmerry)	Entropy always increases
Przemysław Dębiak (Psyho)	Psyho's blog



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Name (Handle)	Blog Name
Anudeep Nekkanti (anudeep2011)	Namespace Anudeep ;)
vexorian (vexorian)	vexorian's blog
Ashar Fuadi (fushar)	Fushar's blog
LiJie Chen (YuukaKazami)	WJMZBMR (Chinese)
Huang I-Wen (dreamoon_love_AA , dreamoon)	小月的耍廢日誌 (Chinese)
Shiang-Yun Yang (morris1028)	Morris' Blog (Chinese)
Yuhao Du (MiFaFaOvO , TooSimple, xudyh)	xudyh (Chinese)

Youtube and Livestreams

Name (Handle)	Link
Petr Mitrichev (Petr)	Youtube
Gate Lectures by Ravindrababu Ravula	Youtube
Mostafa Saad Ibrahim (mostafa.saad.fci)	Competitive Programming Youtube (Arabic Speech-English Text)
Tushar Roy	Youtube , with many tutorial videos.
GeeksforGeeks	Youtube
Algorithms Live!	Youtube



Name (Handle)	Link
CodeChef	Youtube
HackerRank	Youtube
IDeserve	Youtube
code_report	Youtube , with contest updates and problem tutorials of HackerRank, LeetCode, Topcoder and Codeforces.
"Sothe" the Algorithm Wolf	Youtube
Egor Kulikov (Egor)	Youtube
Adam Bardashevich (subscriber)	Youtube
Bohdan Pryshchenko (I_love_Tanya_Romanova)	Twitch , Youtube
Vladimir Smykalov (enot110)	Twitch , Youtube
Aleksandar Abas (Alex7)	Youtube

Quora

Visit [Competitive Programming — Quora \(Top 10 Most Viewed Writers\)](#).

Important Community Figures	Description
-----------------------------	-------------



Important Community Figures	Description
Bill Poucher	Executive Director of ACM-ICPC . CS Professor at Baylor University.
Michal Forišek (misof)	Organizer of IPSC and IOI . CS Teacher at Comenius University in Slovakia. Algorithm and CS Education Researcher. Former highly-rated competitive programmer.
Ahmed Aly (ahmed_aly)	Founder of A2OJ . HackerRank Lead Software Engineer. Former member of the Google Code Jam team.

Competitive Programmers		
Thanh Trung Nguyen (I_love_Hoang_Yen)	Brian Bi (bbi5291)	Jonathan Paulson (jonathanpaulson)
Miguel Oliveira (mogers)	Egor Suvorov (yeputons)	Michal Danilák (Mimino)
Bohdan Pryshchenko (I_love_Tanya_Romanova)	Vladimir Novakovski (vnovakovski)	Nick Wu (xiaowuc1)
Cosmin Negruseri	Lalit Kundu (darkshadows)	Ashish Kedia (ashish1294)
Johnny Ho (random.johnnyh)	Joshua Pan (lonerz)	Anudeep Nekkanti (anudeep2011)
Steven Hao (stevenkplus)	Raziman T.V. (razimantv)	

Other Awesome Resources



Articles

Informative and helpful articles

Subject

[Overview of Programming Contests](#), by Przemysław Dębiak (Psyho, **Psyho**)

[The 'science' of training in competitive programming — Codeforces](#), by Thanh Trung Nguyen (**I_love_Hoang_Yen**)

[If you ask me how to improve your algorithm competition skill, I will give you the link of this blog. — Codeforces](#), by Huang I-Wen (dreamoon, **dreamoon_love_AA**)

[How to prepare for ACM — ICPC? — GeeksforGeeks](#), by Vishwesh Shrimali

[Complete reference to competitive programming — HackerEarth](#), by Ravi Ojha

[Getting started with the sport of competitive programming — HackerEarth](#), by Triveni Mahatha

FAQs

Fine answers to frequently-asked questions

Question

[How do I start competitive programming? — Quora](#)

[How can I become good at competitive programming? — Quora ... What is the best strategy to improve my skills in competitive programming in 2-3 months? — Quora ... What is a good 6 month plan to start and progress through competitive programming? — Quora](#)

[How is competitive programming different from real-life programming? — Quora](#)



16



**Question**

[What have you gained from competitive programming? — Quora](#)

Awesome Lists

Relevant awesome lists

Name	Link
C++ Books	The Definitive C++ Book Guide and List — Stack Overflow
Java Books	What are the best books to learn Java? — Quora
Advanced Java Books	What is the best book for advanced Java programming? — Quora
Algorithms	tayllan/awesome-algorithms
Algorithm Visualization	enjalot/algovis
Math	rossant/awesome-math
C++	fffaraz/awesome-cpp
Java	akullpp/awesome-java
Courses	prakhar1989/awesome-courses
Free Programming Books	vhf/free-programming-books
Community-curated C++ Resources	Hackr.io



Interview Questions

Name	Description
CareerCup	The most popular website for software engineering interview preparation.
InterviewBit	Features intriguing and refreshing game-play designs which are designed to invoke one's interest in practicing.
Awesome Interviews	A curated list of awesome interview questions

License



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awesome, list, reference, awesome list, competitive programming, algorithms, data structures, github

▲ +440 ▼ ☆

[Inishan](#)

5 years ago

[137](#)



Comments (137)

[Write comment?](#)



kshj78

5 years ago, # | ☆

Nice :)

→ [Reply](#)

▲ +17 ▼



SayedEl-Abady

5 years ago, # | ☆

▲ +3 ▼

I think i won't need anything else :D , Thank you very much.

→ [Reply](#)

werterda

5 years ago, # | ☆

▲ 0 ▼

Thank you. That's pretty good resource for me. I hope i can solve C problems easily as soon as possible :)

→ [Reply](#)

5 years ago, # | ☆

▲ +2 ▼

You can also add [https://www.quora.com/profile/Bohdan-Pryshchenko\(I_love_Tanya_Romanova\)](https://www.quora.com/profile/Bohdan-Pryshchenko(I_love_Tanya_Romanova)) to your Quora list.→ [Reply](#)

OmarKhaled_



div24ever

5 years ago, # ^ | ☆

▲ +2 ▼

[Bohdan Pryshchenko](#) :)→ [Reply](#)

Inishan

5 years ago, # ^ | ☆

▲ +3 ▼

Thanks :)

Also added [yeputons](#)'s Quora profile.→ [Reply](#)

5 years ago, # ^ | ☆

▲ +9 ▼



I_love_Tanya_Romanova

You may check [list of most viewed writers](#) in topic "Competitive Programming" — there are quite a few other experienced guys who write nice answers ([Mimino](#), [jonathanpaulson](#) etc.).

Or you may simply use that list itself as a good link :)

→ [Reply](#)

16



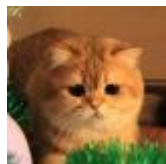


Inishan

5 years ago, # ^ | ☆

▲ +4 ▼

Good idea, there are too many great people to name :)

→ [Reply](#)

shejibri

17 months ago, # ^ | ☆

▲ 0 ▼

I love Tanya too, so lets devide her!

→ [Reply](#)

lonerz

5 years ago, # ^ | ☆

▲ 0 ▼

Jonathan Paulson's (jonathanpaulson) Quora profile link is wrong.

→ [Reply](#)

lonerz

5 years ago, # | ☆

▲ +6 ▼

I am honored to be on the Quora list :) Very nicely done and organized!

→ [Reply](#)

5 years ago, # | ☆

▲ +7 ▼

A similar list already exists under the awesome listing:

<https://github.com/hkirat/awesome-competitive-coding><http://codeforces.com/blog/entry/21182>→ [Reply](#)

gvaibhav22



Inishan

5 years ago, # ^ | ☆

▲ 0 ▼

Most lists I found classify their contents by problem types. (ie. The entries in the list of lists section)

The list I created is meant to be a semi-complete list that covers different aspects on a grander scale.

It's actually significantly different :)

Thanks for the link!



Thanks for the link:

→ [Reply](#)

karanaggarwal

5 years ago, # | ☆

▲ +9 ▼

You can put these two under appropriate sections. <http://e-maxx.ru/algo/>
<http://shygypsy.com/tools/>

→ [Reply](#)

5 years ago, # ^ | ☆

▲ 0 ▼

Thanks!



Inishan

I have E-Maxx up there already :) (I place it higher now)

I've added igor's code archive to the list,
and shortened the Chinese IOI paper link so that the CF markdown interpreter
would work correctly :)

→ [Reply](#)

DarkknightRHZ

5 years ago, # | ☆

▲ +3 ▼

Thank you :) it's very helpful.

→ [Reply](#)

5 years ago, # ^ | ☆

▲ 0 ▼

Np :)

Glad to hear that.



Inishan

Feel free to contribute if you know any site that's not on the list.
I sincerely feel that there's plenty to be improved about this list :)

→ [Reply](#)

robin_0

5 years ago, # | ☆

▲ +3 ▼

Hey Inishan this is a wonderful blog :)

You have put a lot of effort and this will be a helpful resources for most of us :)

You have put a lot of effort and this will be a helpful resource for most of us :).

I can't thank you enough for your effort :)

→ [Reply](#)



draughtsman

5 years ago, <#> | ☆

▲ +3 ▼

I use the [CodeHorizon](#) Android app. Personally, I think it's the best because the UI is really nice and it allows me to set a notification x hours before the contest for a given site, which is really convenient.

→ [Reply](#)



Inishan

5 years ago, <#> ^ | ☆

▲ 0 ▼

Thank you :)

[Added.](#)

→ [Reply](#)



arrch

5 years ago, <#> | ☆

▲ 0 ▼

Wow, nice. Thanks :)

→ [Reply](#)



Hernan

5 years ago, <#> | ☆

▲ +1 ▼

Recently this book was published (Data Structure Practice: for Collegiate Programming Contests and Education) <https://www.crcpress.com/Data-Structure-Practice-for-Collegiate-Programming-Contests-and-Education/Wu-Wang/9781482215397>

It is a translated version from Chinese according to <http://www3.cs.stonybrook.edu/~rezaul/Spring-2015/CSE548/Yonghui-Wu/Yonghui-Wu-books.pdf>

→ [Reply](#)

5 years ago, <#> ^ | ☆

← Rev. 2

▲ +3 ▼

I have some of Prof. Wu's books



Inishan

I have some of them. Was books.

I've even taken a summer training course from him back in 2014.

Frankly speaking, they are not good. It doesn't seem like the professor truly understands the materials. Almost everything (definitions, tutorials, problem editorials) was poorly written. The books cover absolute nothing about the ideas/thought processes. Everything was like "Declare an array/ds with key = X, value = Y. Then you do this ... and you do that. Finally this is the answer."

→ [Reply](#)

5 years ago, <#> | ☆

← Rev. 3 ▲ 0 ▼



Peterde

Great !!!

[Here is another List with java books you can add](#)

→ [Reply](#)

5 years ago, <#> ^ | ☆

← Rev. 2 ▲ 0 ▼



Inishan

Thanks for the recommendation!

I'll take a look. [Here](#) is a collection of good C/C++ books by StackOverflow members.

I think I'll add both of them to the list.

→ [Reply](#)



shan2new

5 years ago, <#> | ☆

▲ +3 ▼

This is the one stop for all. Exactly what I've been looking for.

→ [Reply](#)



Inishan

5 years ago, <#> ^ | ☆

▲ 0 ▼

Glad to hear that. Comments like yours made my efforts worthwhile.

Best wishes to your competitive programming journey :D

→ [Reply](#)



shan2new

5 years ago, # ^ | ☆

▲ +3 ▼

It's definitely worth it and maybe even more :)

Anyway, thanks and keep helping and inspiring other budding Programmers! :)

→ [Reply](#)

5 years ago, # | ☆

← Rev. 2

▲ +3 ▼

Is POJ still a good place for preparation (worth ★★)? I solved 1000+ problem there about 5 years ago, and I felt the judge environment was so old that we must optimize source codes very much (and they don't use -O2 compiler option).

Now, after 5 years, it doesn't seem the judge server is updated, and the number of submissions there is becoming significantly decreased. I don't know about the popularity of this website among Chinese coders, but most Japanese users have been retired using this online judge in these 4-5 years (although they don't retire from programming contest).

They have great problem there, such as USACO problems or POJ Monthly problems, but I don't disagree that even those great problems are getting out of date and the distraction is larger than many up-to-date contest websites (such as Codeforces, topcoder, or AtCoder (Japanese contest service, [AtCoder](#))).

Apart from that, I have unforgettable memories about POJ. Nice job for taking me to higher level.

→ [Reply](#)



smeke



Inishan

5 years ago, # ^ | ☆

← Rev. 2

▲ +3 ▼

First and foremost, Thank you!

This is exactly the kind of feedback I'm hoping for :)

Well, I'm not exactly sure. I actually gave it 2 stars initially precisely for the reason you stated in your comment. But then I decided to give it a 3-star rating because of the large amount of classic problems on there. IIRC, Johnny Ho (IOI 2012 Perfect Scorer) said that he practiced primarily on POJ. This also contributed to decision.

In the Taiwanese community these days, from what I've heard, people practice

in the Taiwanese community these days, from what I've heard, people practice on local online judges (such as HSNU OJ, sprout, TIOJ ... etc.) in addition to CF and topcoder. I think our current situation is kind of similar to yours (Japanese community) by your description :)

→ [Reply](#)



Montazer

5 years ago, <#> | ☆

▲ 0 ▼

Woooooow , this is really the complete reference for competitive programming * _ *

→ [Reply](#)



Inishan

5 years ago, <#> ^ | ☆

← Rev. 2 ▲ 0 ▼

At least my take on it :P

(It started off as a simple compilation of my browser bookmarks :P)

I still have many ideas to improve on the current list!

Good luck to you as well :)

→ [Reply](#)



javacoder1

5 years ago, <#> | ☆

▲ 0 ▼

Hey can you tell me how to print codes from github on paper. There is no option to download it in pdf also the code orientation becomes bad on copying to MS-WORD for printing. Any suggestions.

→ [Reply](#)



Inishan

5 years ago, <#> ^ | ☆

← Rev. 2 ▲ 0 ▼

Hello there :)

Since you mentioned MS-Word, I would suggest you to try an online syntax highlighter. This is my solution for making slides with code snippets.

- Markup.su
- Tohtml.com

Paste your source code on the website



Paste your source code on the website,
and copy-and-paste the converted, formatted source code back to MS-Word.
Since MS-Word retains formatting, the outcome would look pretty nice :)

I'm not aware of a better solution. Would highly appreciate if there's any :)

PS. If this is for your team notebook, you may also use latex — a clever
solution refined by my ex-teammate [pwliao](#). [Link to our notebook repo](#)

→ [Reply](#)



rkking

4 years ago, # | ☆

▲ 0 ▼

how can we make make automatic verification of sample test cases after compilation of
code in IDE ? I saw it in screencast of **Petr** .

→ [Reply](#)



Inishan

4 years ago, # ^ | ☆

▲ 0 ▼

I think that would be CHelper.
Check the **Tools** section.

I haven't tried it myself though.
In case you have any issues, ask **Egor**, the author of CHelper.

→ [Reply](#)



rkking

4 years ago, # ^ | ☆

▲ 0 ▼

Can i use CHelper outside Codeforces too, Like on TopCoder ?

→ [Reply](#)



Inishan

4 years ago, # ^ | ☆

▲ 0 ▼

CHelper supports multiple platforms. TopCoder is supported
I believe.

→ [Reply](#)

4 years ago, # | ☆

▲ 0 ▼

Nice work man really nice Thank!!

**moaz123**

Nice work man. really nice. Thanks!!

→ [Reply](#)**anmol_varshney**4 years ago, <#> | ☆

Great work! Thanks a lot :)

→ [Reply](#)

▲ +3 ▼

**Petru**4 years ago, <#> | ☆

You can add careercup for interview questions

→ [Reply](#)

▲ +3 ▼

4 years ago, <#> ^ | ☆

▲ 0 ▼

**Inishan**Thank you!
Added :)I'm still relatively unfamiliar with interview questions.
Did 2 Facebook interviews last year, but I didn't do very well :(→ [Reply](#)**Montazer**4 years ago, <#> | ☆

This is really all what a programmer need :-)

→ [Reply](#)

▲ 0 ▼

**tamjedpeace**4 years ago, <#> | ☆

OMG!!! Great contribution, like it and love it :) . Thx a lot...

→ [Reply](#)

▲ +3 ▼

4 years ago, <#> | ☆

← Rev. 2

▲ 0 ▼

You can add www.interviewbit.com for interview questions/preparation

You can add www.interviewbit.com for interview questions/preparation.

→ [Reply](#)



being_mj

4 years ago, # ^ | ☆

← Rev. 2 ▲ 0 ▼

Hello, Thanks first of all.

Can you tell me how you would recommend it?
(Sorry, I don't know these sites well enough)

→ [Reply](#)



Inishan

4 years ago, # ^ | ☆

▲ 0 ▼

Maybe 4 out of 5. It has great database of questions asked in interviews and there tutorials/solutions are very elaborate. Plus they have classified the problems of different domain very well.

→ [Reply](#)



being_mj

4 years ago, # ^ | ☆

▲ 0 ▼

Sorry for the late reply.

I've been pretty busy recently (doing 2 jobs atm).

It looked great I think.

I checked out a few of the problems.

I have a question: Is it being actively maintained? (eg. new problems every now and then?)

→ [Reply](#)



Inishan



being_mj

4 years ago, # ^ | ☆

▲ +3 ▼

Yes. Guys who developed it are quite active.

I can not say much about whether new problems are added regularly because of my limited usage of this website (3~4 months). But they seems to

An awesome list for competitive programming! - Codeforces
of this website (3-4 months). But they seems to
be very responsive to user's comments and
suggestions.

→ [Reply](#)



Rizro

4 years ago, <#> | ☆

wow, Nice, Thanks! :D

→ [Reply](#)

▲ 0 ▼



amsen

4 years ago, <#> | ☆

Hi!

please add this book for graph theory!

[Introduction to Graph Theory Douglas B. West](#)

→ [Reply](#)

← Rev. 2

▲ +1 ▼



roCkY

4 years ago, <#> | ☆

Please also include [Interviewbit](#) under interview questions / online sites to practice.

→ [Reply](#)

▲ 0 ▼



Inishan

4 years ago, <#> ^ | ☆

Maybe not in the sites to practice,
because I think interview questions are quite different.
(This list is for competitive programming for the most part)

I'm sorry. I do intend on including it.
I just haven't gotten around to explore this site.

→ [Reply](#)

▲ 0 ▼



SrGrace

4 years ago, <#> | ☆

I think, In the blog section you should also add [I, ME AND MYSELF !!!](#).... a blog by
Zobayer Hasan. thnx.

→ [Reply](#)

▲ 0 ▼

[→ Reply](#)**Inishan**4 years ago, <#> [^](#) | [☆](#)

Hello. Thanks for the suggestion.

Can you tell me a bit more about him?

[→ Reply](#)

▲ 0 ▼

**Scayre**4 years ago, <#> | [☆](#)

EVERYBODY IS THE PERFECT!

[→ Reply](#)

▲ 0 ▼

**Scayre**4 years ago, <#> | [☆](#)

COOL!

[→ Reply](#)

▲ 0 ▼

**EbraM96**4 years ago, <#> | [☆](#)U can also add [ahmed_aly](#)

A2OJ founder BTW

<https://www.quora.com/profile/Ahmed-Aly>[→ Reply](#)

▲ 0 ▼

**Inishan**4 years ago, <#> [^](#) | [☆](#)I actually stumbled upon his profile a while ago,
and he didn't have many answers back then :P

Thanks,

I'll place him on the list.

[→ Reply](#)

▲ 0 ▼



16



**ahmed_aly**

4 years ago, # ^ | ☆

Thanks **EbraM96**!→ [Reply](#)

▲ 0 ▼

**EbraM96**

4 years ago, # ^ | ☆

You're welcome.

→ [Reply](#)

▲ 0 ▼

4 years ago, # | ☆

Great effort!

I have a channel for competitive programming, mainly for Arabian speakers. However, all text is in English.

▲ +6 ▼

**mostafa.saad.fci**<https://www.youtube.com/user/nobody123497>→ [Reply](#)**Black**

4 years ago, # ^ | ☆

← Rev. 4

I was just about putting your Channel Doctor: **mostafa.saad.fci** :D→ [Reply](#)

▲ 0 ▼

**mostafa.saad.fci**

4 years ago, # ^ | ☆

Thanks :) I submitted on the github a request to add it there

→ [Reply](#)

▲ 0 ▼

**Mordred**

4 years ago, # | ☆

You can also add **Tushar Roy** to YouTube list. :]→ [Reply](#)

▲ +4 ▼



giorgosgiapis

4 years ago, # |

Yes. His tutorials are really helpful.

→ [Reply](#)

0



Inishan

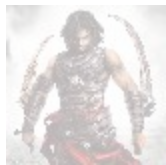
4 years ago, # |

Thanks, added.

Sorry, it's been busy for me recently.

→ [Reply](#)

0



Megastar

4 years ago, # |

→ [Reply](#)

← Rev. 2

-28

The comment is hidden because of too negative feedback, click [here](#) to view it

manav3797

4 years ago, # |

very nice

→ [Reply](#)

← Rev. 4

0



Inishan

4 years ago, # |

geeksforgeeks is up there, 3rd item in the first section.

→ [Reply](#)

0



manav3797

4 years ago, # |

my bad

→ [Reply](#)

0

4 years ago, # |

+3

The website of Spaghetti Source is no not updated, but Spaghetti Source is still being

**n_knuu**

The website of Spaghetti Source is no not updated, but Spaghetti Source is still being updated now in github. <https://github.com/spaghetti-source/algorithm>

→ [Reply](#)

4 years ago, # ^ | ☆

▲ +5 ▼

**Inishan**

Thank you!
I'll replace the link to the website with this one :)

The items are significantly harder too o.o

→ [Reply](#)**harrypotter0**

4 years ago, # | ☆

▲ 0 ▼

<http://codeforces.com/blog/entry/43230> <https://github.com/EvgenyKarkan/EKAlgorithms>
<https://github.com/lucasviola/competitive-programming-resources>
<https://github.com/palcu/algo> <https://github.com/suuuzi/Competitive-Programming> add these too..

→ [Reply](#)

4 years ago, # ^ | ☆

← Rev. 3 ▲ 0 ▼

**Inishan**

Hello,
Thank you. I appreciate the effort.

However, I don't think any of these are qualified for the list.
They are all well-organized, but too simple (only cover basic stuff).

→ [Reply](#)**srinivas_8025**

4 years ago, # | ☆

▲ +3 ▼

Great effort. Thank you very much... :)

→ [Reply](#)

4 years ago, # ^ | ☆

▲ +5 ▼

Thanks for the kind words :)

It's been a year since I launched this project



Inishan

It's been a year since I launched this project.

Time flies!

→ [Reply](#)



crazy_cow

4 years ago, <#> | ☆

▲ 0 ▼

Can you add some more resources related to computational geometry helpful for ICPC?
Thanks for this awesome collection.

→ [Reply](#)

4 years ago, <#> ^ | ☆

▲ 0 ▼



Inishan

I would love to, but I have rather limited knowledge when it comes to
Computational Geometry.

You should be able to find some relevant resources on the listed websites, but
other than that, I'm afraid that I am a bit on the ignorant side when it comes to
CG :/

→ [Reply](#)

4 years ago, <#> | ☆

← Rev. 2 ▲ 0 ▼

Could add this book written in spanish to the list?



Hernan

Original Title: Introducción en C++ a la Programación Competitiva

English Title: Introduction to Competitive Programming in C++

[http://olimpiada.icpc-](http://olimpiada.icpc-bolivia.edu.bo/sites/default/files/Introduccion%20en%20C++%20a%20la%20Programacion%20Competitiva.pdf)

[bolivia.edu.bo/sites/default/files/Introduccion%20en%20C++%20a%20la%20Programacion%20Competitiva.pdf](http://olimpiada.icpc-bolivia.edu.bo/sites/default/files/Introduccion%20en%20C++%20a%20la%20Programacion%20Competitiva.pdf)

→ [Reply](#)



Inishan

4 years ago, <#> ^ | ☆

▲ 0 ▼

This does look like a good book.
Can you give us an introduction for the book?

I'm sorry that I do not understand Spanish, nor am I familiar with the Spanish.

I'm sorry that I do not understand Spanish, nor am I familiar with the Spanish-speaking competitive programming community.

→ [Reply](#)



Mavrick_

new, 9 months ago, # ^ | ☆

▲ 0 ▼

https://translate.googleusercontent.com/translate_f#131 hope it helps.. :)

→ [Reply](#)

3 years ago, # ^ | ☆

▲ 0 ▼

nice Read more>>><http://www.mytectra.com/>

<http://www.mytectra.com/python-training-in-bangalore.html>

<http://www.mytectra.com/aws-training-in-bangalore.html>

→ [Reply](#)



mytectra



qwerty29

4 years ago, # | ☆

▲ 0 ▼

this is too overwhelming! where do I start?

→ [Reply](#)

4 years ago, # ^ | ☆

▲ 0 ▼

I admit that it's a little overwhelming :P

That said, there are also overwhelmingly many ways you can start!

if you don't have a clue, I would suggest that you start with an open course :)

→ [Reply](#)



Inishan

4 years ago, # | ☆

▲ 0 ▼

Discrete Mathematics and Its Applications, by Kenneth H. Rosen :

http://www2.fiit.stuba.sk/~kvasnicka/Mathematics%20for%20Informatics/Rosen_Discrete_Mathematics_and_Its_Applications_7th_Edition.pdf

→ [Reply](#)



sam96

→ [Reply](#)

I_love_Hoang_Yen

3 years ago, # | ☆

KTH ACM ICPC Team notebook

→ [Reply](#)

▲ +11 ▼



Inishan

3 years ago, # ^ | ☆

Wow! Their notebook looks awesome!

I'll add that to the list when I get off work today.

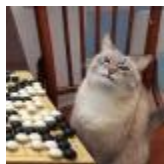
→ [Reply](#)

▲ 0 ▼

3 years ago, # | ☆

How dare you. I demand "how to solve it" and "concrete mathematics" be upgraded to 3 stars.

▲ 0 ▼



Cybuster

→ [Reply](#)

3 years ago, # ^ | ☆

← Rev. 2 ▲ 0 ▼

Well, I would love to, but I need an authoritative review of those books because

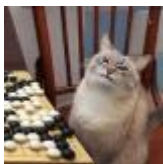


Inishan

well, I would love to, but I need an authoritative review of those books because I have not read these books entirely.

Would you be kind enough to share your thoughts?

→ [Reply](#)



Cybuster

3 years ago, <#> [^](#) | [☆](#)

▲ 0 ▼

Those books are written by two great ACTUAL mathematicians (not school teachers or textbook authors). Also they are well regarded in the mathematics community as two great books, you can't just compare them to some random textbooks by some random dudes.

→ [Reply](#)



PermanAtayev

3 years ago, <#> | [☆](#)

▲ 0 ▼

thank you very very much, it's very helpful for me.

→ [Reply](#)



Inishan

3 years ago, <#> [^](#) | [☆](#)

▲ 0 ▼

You're very, very welcome! Glad it's helpful for you :)

→ [Reply](#)

3 years ago, <#> | [☆](#)

← Rev. 3 ▲ 0 ▼

I apologize for being not as responsive lately.

I'll get back to you when I have time, and ping me if I don't.

Also, I'm so sorry that I cannot provide individual assistance.

I've been quite busy and I don't think I'm the right person to ask for help (I'm blue you see).

→ [Reply](#)

3 years ago, <#> | [☆](#)

▲ 0 ▼

Hil Awesome list! Can we add BaseCS as a resource for data structures and computer



motatoes

The Awesome list: Can we add basecs as a resource for data structures and computer science basics?

<https://medium.com/basecs>

→ [Reply](#)



Inishan

3 years ago, # ^ | ☆

Yes! :)

Your blog looks amazing.

→ [Reply](#)

▲ 0 ▼



stardark999

3 years ago, # | ☆

Does anyone have access to the Chinese IOI papers at <http://download.csdn.net/album/detail/657?> I've tried to open an account to download, including using external websites like WeChat and GitHub and Baidu to link, but CSDN still requires verification of a mainland Chinese phone (this seems to be 2015 policy).

→ [Reply](#)

▲ 0 ▼



Inishan

3 years ago, # ^ | ☆

That's interesting, because I was able to download those documents last year.

It was actually one of the more accessible download locations I could manage to find.

I'll probably end up removing it, because it is a little controversial.

→ [Reply](#)

▲ 0 ▼



abriljoseph

3 years ago, # | ☆

Besant Technologies is institute and training wing of Besant Technologies a services firm offering design, development and online marketing solutions with clients across the globe Taking advantage the services offered by Besant Technologies, Besant Technologies is committed to provide quality education with hands on experience and real-time training. This is what makes Besant Technologies stand apart from the rest! [Selenium Training in Bangalore](#) | [Python Trining in Bangalore](#)

→ [Reply](#)

▲ -19 ▼

[→ Reply](#)

ghoshsai5000

3 years ago, # | ☆

▲ 0 ▼

Maybe [Kaggle](#) should be added to the list.[→ Reply](#)

Inishan

3 years ago, # ^ | ☆

▲ 0 ▼

If we include data science competitions, I think there will be a lot to be added.

I think it would be better to leave those for ML resource collections.

[→ Reply](#)

ghoshsai5000

3 years ago, # ^ | ☆

▲ 0 ▼

Would you like to make a separate thread for data science competitions ? It would be helpful to me.

[→ Reply](#)

ghoshsai5000

3 years ago, # | ☆

▲ 0 ▼

Please add [LeetCode](#) to the Interview Questions part.[→ Reply](#)

Inishan

3 years ago, # ^ | ☆

▲ 0 ▼

Yeah LeetCode should probably be in there :)

[→ Reply](#)

abriljoseph

3 years ago, # | ☆

▲ -11 ▼

Python training in Bangalore. The main objectives of this training program are to offer attendees courses in python Programming. and test training method both theory and practical way to teach. [Selenium Training in Bangalore](#) | [Python Training in Bangalore](#)

[→ Reply](#)



I_love_hyumasik_pivasik

3 years ago, # | ☆

Huge thanks!

→ [Reply](#)

▲ 0 ▼



Hernan

3 years ago, # | ☆

is this a new book <http://www.springer.com/us/book/9783319725468> ? Guide to Competitive Programming: Learning and Improving Algorithms Through Contests by Laaksonen, Antti

→ [Reply](#)

▲ 0 ▼



Rasheduzzaman

3 years ago, # | ☆

Thank you very much.

→ [Reply](#)

▲ 0 ▼



Muataz

3 years ago, # | ☆

god bless you. Thank you so much

→ [Reply](#)

▲ 0 ▼



arbitrary_A

3 years ago, # | ☆

found it as too much helpful resource..thanks :D

→ [Reply](#)

▲ 0 ▼



mak_2002

3 years ago, # | ☆

please add [Hightail](#) to codeforces parsers

→ [Reply](#)

▲ 0 ▼



ankit_btech

2 years ago, # | ☆

Really very helpful and probably the most exhaustive lists for competitive programming I have seen so far. Thanks a lot!

→ [Reply](#)

▲ 0 ▼

[→ Reply](#)

sapjv

19 months ago, <#> | ☆

▲ 0 ▼

Thanks. Very helpful for all.

[→ Reply](#)

chaudhary_19

19 months ago, <#> | ☆

▲ 0 ▼

It would be better for me , if you also provide some cool stuff for python . If anyone has such cool stuff for python...plzz provide link its a humble request to all

[→ Reply](#)new, 6 months ago, <#> ^ | ☆

▲ 0 ▼



monirul_haque

A book is going to be released named "Competitive Programming in Python" by Christoph Dürr

<https://www.cambridge.org/bd/academic/subjects/computer-science/algorithms-complexity-computer-algebra-and-computational-g/competitive-programming-python-128-algorithms-develop-your-coding-skills?format=PB&isbn=9781108716826>

[→ Reply](#)

Hajiebrahimi

19 months ago, <#> | ☆

▲ 0 ▼

this is very good for me . thank you .

[→ Reply](#)

S.Jindal

19 months ago, <#> | ☆

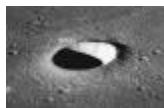
← Rev. 2 ▲ 0 ▼

Unable to parse markup [type=CF_MATHJAX_MARKDOWN]

[→ Reply](#)17 months ago, <#> | ☆

← Rev. 2 ▲ 0 ▼

[This topcoder page](#) is also very helpful



Mooncrater

This repository page is also very helpful.

→ [Reply](#)



John1212

17 months ago, # | ☆

▲ -8 ▼

Great Article almost everything is covered but few missed like <http://letsfindcourse.com>

→ [Reply](#)



mehmetaltuner

17 months ago, # | ☆

▲ +3 ▼

I would like to recommend this repository: [Inzva Algorithm Programme](#)

→ [Reply](#)



eyenine

17 months ago, # | ☆

▲ 0 ▼

You did a great job.thank you very much

→ [Reply](#)



stud_IO

16 months ago, # | ☆

▲ 0 ▼

Does the book mentioned for CP: プログラミングコンテストチャレンジブック (Japanese), by 秋葉拓哉, 岩田陽一, 北川宜稔 has an English version to read?

→ [Reply](#)



shtanriverdi

16 months ago, # | ☆

▲ 0 ▼

Thank you all for your efforts!

→ [Reply](#)



rootbot

new, 11 months ago, # | ☆

▲ 0 ▼

Thanks a lot

→ [Reply](#)



16

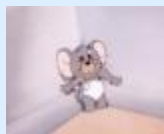




GirGiti

new, 11 months ago, # | ☆

▲ -6 ▼

This is so helpful man. Thank you!→ [Reply](#)

Sukarna_Paul

new, 11 months ago, # | ☆

▲ 0 ▼

プログラミングコンテストチャレンジブック (Japanese), by 秋葉拓哉, 岩田陽一, 北川 宜稔

Is the English version of this book available please?

→ [Reply](#)

lalit.n.chandora

new, 9 months ago, # | ☆

▲ 0 ▼

Never, I repeat, NEVER delete this blog post. its very helpful. Thanks a lot.

→ [Reply](#)

sci.agarg

new, 9 months ago, # | ☆

▲ 0 ▼

[Solving Trees](#)→ [Reply](#)

csk111165

new, 8 months ago, # | ☆

▲ 0 ▼

Please add <https://cp-algorithms.com/> as well.→ [Reply](#)

arvindr9

new, 7 months ago, # | ☆

▲ 0 ▼

Is anyone able to access the papers from the Chinese IOI training camps in the list above? (<http://download.csdn.net/album/detail/657/1/1>)

I get a 404 error when I try to open the zip files from different years.

→ [Reply](#)

▲ 0 ▼



16

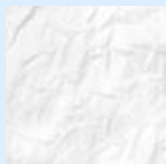




csk111165

new, 7 months ago, # | ☆

I want to add a awesome Youtube Channel created by Errichto.

<https://www.youtube.com/watch?v=kvzvsvyUZp7Q>→ [Reply](#)

bushraankhari

new, 6 months ago, # | ☆

nyc

→ [Reply](#)

▲ 0 ▼



archit1997

new, 6 months ago, # | ☆

Everything in one place. Thanks alot man !!

→ [Reply](#)

▲ 0 ▼



nagpur

new, 2 months ago, # | ☆

thankyou

→ [Reply](#)

▲ 0 ▼



amlidajame25

new, 6 weeks ago, # | ☆

Hi,

Thank for sharing nice post.

[Home Network Security](#)→ [Reply](#)

▲ 0 ▼



csk111165

new, 5 weeks ago, # | ☆

Best compilation on CP resource.!!

→ [Reply](#)

▲ 0 ▼

**Stratonov_16**

new, 5 weeks ago, # | ☆

▲ 0 ▼

Wow!! Almost all the websites that I know are there in the list highly recommended. GG

→ [Reply](#)

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The only programming contests Web 2.0 platform
Server time: Dec/17/2020 03:02:31^{UTC+6} (i2).
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