

# Online Learning Resources Guide

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## Mathematics

Name	Description	Link
3Blue1Brown (Youtube)	The channel explores mathematical concepts with awesome visual illustrations in the video. Best channel to learn math and get started on topics	<a href="#">3Blue1Brown - YouTube</a>
Khan Academy (website)	Khan Academy's library offers free standard practice lessons on all mathematics topics. Very useful for getting technical details	<a href="#">Math   Khan Academy</a>
Wolfram Alpha (website)	AI based calculator that provides step-by-step solutions to any problems. Can solve calculus, differential equations, statistics, linear algebra and other problems.	<a href="#">Wolfram Alpha: Computational Intelligence (wolframalpha.com)</a>
Naked Statistics (book)	This book, written by Charles Wheaton, explores the basic ideas behind statistics, explains how data can be changed, and teaches essential statistics concepts in an enjoyable way.	<a href="#">Book Review and Summary: "Naked Statistics" by Charles Wheelan   Medium</a>
Organic Chemistry tutor (Youtube)	The Organic Chemistry Tutor channel makes videos on mathematics and its applications in real life. Their statistics playlist is a great resource for learning statistics.	<a href="#">Organic Chemistry Tutor - Statistics Playlist</a>

## JavaScript

Name	Description	Link
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W3Schools (Website)	Online free education website that covers many programming languages. They have an online interactive IDE with every documentation; so, it's good to use it for JS, HTML, and CSS.	<a href="#">W3Schools Online Web Tutorials</a>
Free Code Camp	Their JavaScript DSA course teaches you the fundamentals of JavaScript and their blog forum has many useful tutorials. Their YouTube channel also has a ton of courses and tutorials on anything programming and technology related.	<a href="https://freecodecamp.org">freecodecamp.org</a> <a href="https://freeCodeCamp.org">freeCodeCamp.org</a> - YouTube
Web Dev Simplified (YouTube)	Great YouTube channel for content related to web development with JavaScript and TypeScript. Has many tutorials and project rundowns.	<a href="#">Web Dev Simplified - YouTube</a>
JavaScript Mastery (YouTube)	Great channel with a ton of practical tutorials on building web applications. Also has great insights and tech trend update videos.	<a href="#">JavaScript Mastery - YouTube</a>

## Java

Name	Description	Link
Coding with John (YouTube)	Awesome channel for Java tutorials. The guy explains hard concepts like OOP and polymorphism very well.	<a href="#">Coding with John - YouTube</a>
Greek for Geeks (Website)	Similar to W3Schools, the website covers many programming languages and coding concepts. Their Data Structure and Algorithm (DSA) breakdown section is very good and fits in with Payap's Java curriculum.	<a href="#">GeeksforGeeks   A computer science portal for geeks</a>
Dinesh Varyani (YouTube)	Great channel that specializes in Java and covers theoretical and practical applications of Java. The playlist linked on the right has all the tutorials for DSA with Java but explore the channel for topics.	<a href="#">Data Structures and Algorithms in Java full course - YouTube</a>

## Python

Name	Description	Link
Tech with Tim (YouTube)	Great channel with tutorials on python fundamentals, advanced python applications like web development, game development, Machine Learning and etc. Also has tip and guide videos on becoming a great programmer	<a href="#">Tech With Tim - YouTube</a>
Medium (website)	An open blog where people can publish their blogs. A ton medium articles on python can be found. Just search 'python topic' medium or through the website	<a href="#">The most insightful stories about Python - Medium</a>

## ML & AI

Name	Description	Link
Analytics Vidhya (Website)	Another blog website that specializes in python and AI/ML. Also, has useful guides for career and interview preparations. Either log in using email or use remove paywall com to get rid of the modal.	<a href="https://analyticsvidhya.com/">Big Data Discussion (analyticsvidhya.com)</a>
Kaggle (website)	Great Website for learning and practicing ML/AI projects using python. The website has an online version of the Jupyter Notebook with free GPUs. Has a great database for free datasets and awesome community with tons of useful notebooks	<a href="https://www.kaggle.com/">Kaggle: Your Home for Data Science</a>
Andrew Ng (guy)	Pioneer in machine learning and artificial intelligence for online education. He has down extensive work in AI and any content related to him or produced by him online is useful.	<a href="https://www.andrewng.org/">Home   Andrew Ng Stanford CS229: Machine Learning Course, Andrew Ng (Autumn 2018)</a>

## Important Websites

Name	Description	Link
Remove pay wall	Can bypass the paywall of most websites. Copy the desired website link and paste it into the search bar.	<a href="https://www.removepaywall.com/">https://www.removepaywall.com/</a>
Library genesis	Fire sharing shadow library that has any books, journal articles and magazines. Very useful to get online pdf books without having to pay for the hardcopy	<a href="https://libgen.is/">Library Genesis (libgen.is)</a>
Code Sand Box	Cloud development environment for free, can code any programming language in the online ide without doing the setup and has GitHub connection.	<a href="https://codesandbox.io/">CodeSandbox: Instant Cloud Development Environments</a>
Go Movies	Free website that can stream any movies. Use Ad blocker.	<a href="https://gomovies.to/">Gomovies</a>
YouTube to Mp3	Can download any YouTube video in mp3 file. Same works for MP3, just search for them.	Google youtube to mp3 or youtube2mp3

## Useful content for career

Name	Description	Link
ASEAN foundation (website)	Organization from and for the people of ASEAN. They hold many events throughout the year to contribute to the building of the ASEAN community. Should participate in the competitions while you are a student because the networking and job opportunities from the	<a href="https://aseanfoundation.org/">ASEAN foundation - Instagram</a> <a href="https://aseanfoundation.org/">ASEAN foundation - Facebook</a> <a href="https://aseanfoundation.org/">ASEAN Foundation</a>

	<p>ASEAN level events are invaluable. Notable events are:</p> <ul style="list-style-type: none"> <li>• ASEAN Data Science Explorers from Feb/March till April and in person competition until September</li> <li>• ASEAN Seeds for the Future: partner event with Huawei to give training and leadership experience, applications in June, Training in July and Huawei visit in August/September</li> </ul> <p>ASEAN Foundation Model ASEAN Meeting (AFMAM): to raise ASEAN awareness and promote greater ownership of ASEAN community amongst youths</p>	
MUIC Career Development page (Facebook)	Facebook page focused on university student's career development. Has up to date announcements for internship by top companies in Thailand and useful workshops held by Mahidol University.	<a href="#">MUIC Career Development - Facebook</a>
Chula Jobs and Internship group	Facebook for students and alumni of Chulalongkorn University but they accept any applicants to the group. Has up to date announcements for internship and job posting by companies and hiring managers. There are a lot more posts than MUIC career development page but is more catered towards Thai students.	<a href="#">Chula - Jobs &amp; Internships   Facebook</a>
Free Code Camp (weekly newsletter)	Amazing newsletter sent every Friday to your email, written by the founder Quincy Larson. Each email contains 5 links about programming and computer science. They also have a podcast on Spotify where Quincy Larson interview people from various tech industry about their experiences (very useful).	<a href="https://freecodecamp.org/email-sign-up">freecodecamp.org/email-sign-up</a> <a href="https://open.spotify.com/show/7CpuEnbCLIXwI6LEcbBOYP?si=d4237f0e78e044bd">https://open.spotify.com/show/7CpuEnbCLIXwI6LEcbBOYP?si=d4237f0e78e044bd</a>
Linkedin monthly newsletters	<p>Monthly newsletters for various topics on LinkedIn.</p> <p>Notably ones are:</p> <ul style="list-style-type: none"> <li>• AWS</li> <li>• Google</li> <li>• Microsoft</li> <li>• Learn AI Together</li> <li>• Towards AI</li> <li>• React Newsletter</li> </ul>	<ol style="list-style-type: none"> <li>1. <a href="#">Skill Up with AWS</a></li> <li>2. <a href="#">Monthly Tech-in - Microsoft</a></li> <li>3. <a href="#">Transformation Today Google</a></li> <li>4. <a href="#">Learn AI Together</a></li> <li>5. <a href="#">Ai Newsletter - Towards AI</a></li> <li>6. <a href="#">React NewsLetter</a></li> </ol>

## General Programming Content

Name	Description	Link
Fireship (YouTube)	Really awesome YouTube channel focused on software development, programming, and technology trends. The channel releases short, informative, concise, and visually fun videos that cover a very wide array of topics. There usually either break down the topic, i.e. a programming language, or come with a fast and practical tutorial	<a href="#">Fireship - YouTube</a>
Code Bullet (YouTube)	Fun YouTube channel that combines AI with gaming. The videos involve making AI agents to learn how to play various games. The videos are very fun to watch and also very informative.	<a href="#">Code Bullet - YouTube</a>
NeetCode (YouTube)	Very useful channel that prepares you for coding interviews. The youtuber is an ex-FANG employee and makes great tutorials on interview questions, specifically from Leet Code. Very good teacher and well-organized videos.	<a href="#">NeetCode - YouTube</a>
Theo – t3.gg (YouTube)	Informative YouTube channel that makes tutorials on various tech stacks, fun coding challenge and tech discussion with industry insights. The youtuber is Theo, the inventor of the ‘T3 stack’ and has great insights on web development.	<a href="#">Theo - t3.gg - YouTube</a>
Stand-up Maths (YouTube)	Fun YouTube channel that makes engaging and humorous content related to Mathematics. The videos explain mathematical concepts in relatable and entertain ways.	<a href="#">Stand-up Maths - YouTube</a>

## Tech Youtubers

Name	Description	Link
Frying Pan	<p>Run by Pan, a former computer science student, now working in the Software Engineering industry. His content is based around:</p> <ul style="list-style-type: none"> <li>• software engineering industry</li> <li>• live coding and problem solving</li> <li>• career advice and preparations for students</li> <li>• tech talks and discussions</li> <li>• Productivity for students and self-reflection</li> </ul> <p>His notable videos are videos where he did an internship at one of the FANG companies during his degree. Fun guy to watch and relatable</p>	<a href="#">Frying Pan - YouTube</a>

Joma tech	Channel is run by Joma, “a millionaire”. Content revolves around ‘Life in Big Tech’, tech trends and analysis, and Career advice and Guidance. Very fun and informative.	<a href="#">Joma Tech - YouTube</a>
Nick White	Great channel that helps aspiring programmers. Nick makes videos on DSA tutorials, System design and Software engineering, Career advice and Motivation, Tech Industry Discussion and Practical experience discussions	<a href="#">Nick White - YouTube</a>