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##### Introduction:

As we know, there are now so many public domain learning materials on the internet, which are also known as Open Education Resources (OERs). It is favourable that there are a large number of online resources for us to learn. However, the quality of online resources varies a lot. This time I want to share with you a really useful website for computer science students, especially in data structures. Because of this website,**I got an A+ in the Data Structure Course (COMP2021).**Many of my friends also highly recommend this website and I believe it will help you if you are having trouble with data structures.

##### Brief Reasons of Why I Recommend GeeksforGeeks:

**The reasons mainly contains three parts:**

1. It combines all kinds of resources about computer science and saves students’ time searching them on the internet.

2. It is especially useful to learn data structures and algorithms, because it provides a huge number of high frequency questions and exercises for each data structures with clear explanations.

3. Its solutions are easy to understand and include multiple text solutions, online practice, video explanation, and codes for different languages.

From my research, online resources mainly contain three categories, which are online videos/courses, online tutorials, and online programming websites. For example, you can get a lot of useful videos from [YouTube](https://www.youtube.com/), plenty of tutorials of programming languages in [W3Schools](https://www.w3schools.com/)and over one thousand exercises in [LeetCode](https://leetcode-cn.com/problemset/all/" \t "_blank). However, the websites that can combine all three of them are very rarely----[GeeksforGeeks](https://www.geeksforgeeks.org/)is one of them.

This passage will not only tell you why to use GeeksforGeeks but also tell you how to use it! Let’s first have a look at the main page of the website. You can find probably all the computer science topics on the right-hand side of the page, which also includes many internship experiences and learning experiences. You can also write your article here if you have some unique solutions to the questions!

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For different students, it also provides different parts to satisfy different people’s needs.

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About the courses, I do not recommend them because there are so many high-quality online courses on other websites.

All in all, GeeksforGeeks can satisfy nearly all of computer science's basic requirements. If you have this website, it can save you much time searching for some topic on the internet from a huge amount of good or bad resources. That’s why I highly recommend it. Next, I will introduce how to use it to practice your data structures, which is maybe one of the most important topics in the CS college study.

##### How to learn data structures in GeeksforGeeks?

First, let’s see how to find the tutorials of data structures. You can also choose the specific data structure that you what to practice.

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It will firstly introduce the features of the data structure and provide lots of questions about this data structure. For example, if we click “Stack”, we can find the following information.

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From my experience, the red topics above are the most important in this data structure and **it is very likely to be tested in all kinds of tests, interviews, and examinations**. If you can master all of them, it is a piece of cake to get a good grade in the data structure course. Now let’s see how to learn every question in the above list.

##### How to learn a specific question?

Let’s take “Implement two stacks in an array” as an example.

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It will first introduce the question and give you some examples. After understanding the scenarios, it is highly recommended to practice by ourselves first. You can either use your compiler or use the online version provided by the website. The link is highlighted in the following picture.

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After practicing by ourselves, it comes to the most significant part when using the GeeksforGeeks website. You can find **multiple solutions** to this question and find the simplest one. Usually, if it is an algorithm question, it will also provide **the time and space complexity of every solution.** That’s so friendly for the beginners in data structures!

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It also provides the implementation of each solution in many different programming languages. Compare to many websites which only give solution but no implementation, it will save you a lot of time.

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Some people may ask: what if I cannot understand the solutions? Don’t worry. Usually, the website will provide a video solution to each question. Compared to the text version, the video version may be easier to understand especially in some sorting algorithms.

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##### Conclusion:

In conclusion, GeeksforGeeks is the best **OER** I have ever seen in the CS area, especially for data structures and algorithms. It is also highly recognized by **Dr. Cao**, the lecturer of COMP2021. For me, I got a very ideal grade using this website and all the students who have used this website also considered that it is very useful. Therefore, I sincerely recommend this website to all the COMP students who want to improve their data structures skills no matter for the sake of examinations or the interviews.

ZHANG Caiqi