EDUCATION

What it takes to study Computer Science in Bangladesh
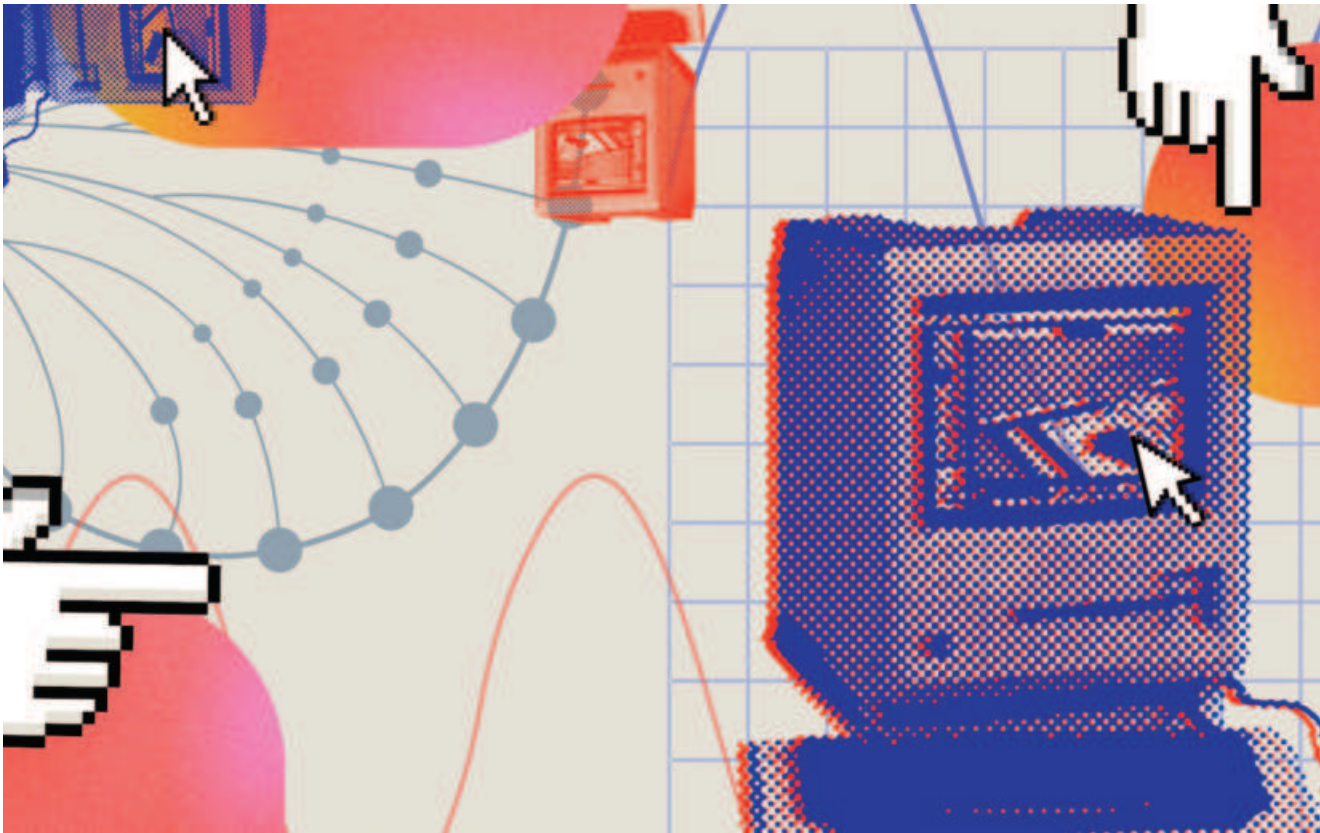

ILLUSTRATION: **ABIR HOSSAIN**

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BIPRA PRASUN DAS

Nowadays, with terms like artificial intelligence, machine learning, and cybersecurity spawning in daily conversations, online blogs, and newspaper headlines, a growing number of students in Bangladesh are considering Computer Science (CS) or Computer Science and Engineering (CSE) as their fields of study. While those who opt to pursue CS have a genuine interest and passion for the field, many students are lured by the promise of a well-paid career in a seemingly ever-expanding tech industry, without really knowing what it entails to be a student in either of those fields.

Firstly, being able to code and do it well will be required of you. While there are people who enjoy coding and find it to be a fascinating experience, many others do not. For the latter group, learning how to code can prove to be a tedious and cumbersome process.

"Coding is a crucial part of the curriculum, and not being able to code will make things difficult. You need to really understand how to write and debug code, but more importantly, how that code works," said Labib Rahman*, a student at the Department of Computer Science and Engineering at Rajshahi University.

Programming is by no means the only aspect of CS/CSE, but it is still a very significant part of it. So, before one chooses either one, it is important to consider whether programming is something they are likely to enjoy.

When I was starting out, the most daunting challenge for me was adjusting to the learning curve. In fact, many students, like myself, find programming concepts, data structures, and algorithms challenging to learn. Understanding the syntax and semantics of programming languages can be very overwhelming, especially for those without prior experience. Additionally, the mathematical foundations required for the subject, which includes discrete mathematics and calculus, can prove to be challenging for those who struggle with Maths.

Sheikh Arifin Ahmed, who studies Computer Science at BRAC University, says, "Initially, grasping coding concepts proved to be quite challenging as I had no experience with computer programming beforehand."

Balancing coursework, assignments, projects, and personal life can also prove to be difficult as well, leading to burnout. Meeting project deadlines will be crucial and requires effective time management skills, which many students struggle with. This may be a result of students underestimating the steep learning curve and rigorous curriculum that is characteristic of a degree in CS and CSE. Due to its taxing nature, however, studying for the degree can take a toll on one's mental health.

Farhan Khan* who studies CSE at North South University talks about his struggles, "I have suffered quite a bit with self-doubt and imposter syndrome, especially when I compared myself to my peers who are more advanced and perform better academically."

Not only does it affect their mental health, but many students also end up regretting their choice to pursue the subject. Poor grades and a lack of motivation reinforce such feelings of disillusionment. I, for instance, really enjoyed mathematics as a high school student. Part of the reason why I chose CSE was because of its heavy application in maths. However, a few weeks into my degree, I realised that mathematics was just a part of this vast field, and simply being proficient in it would not suffice.

Labib added, "I was considered proficient in mathematics when I was in college, by both my peers and teachers, which is why I thought I would enjoy Computer Science. However, that has not been the case for me."

Another important factor that should be thoroughly assessed is to what extent self-learning works for a student. Both CS and CSE students often receive advice from seniors and lecturers about the importance of self-learning. University lectures are essential for grasping fundamentals and key concepts. Due to time constraints though, not every aspect of a topic can be fully explored in class. Therefore, you will have to supplement your learning by exploring additional resources such as the Internet and textbooks.

CS and CSE are vast subjects. Therefore, it is important that you evaluate whether you have a genuine interest and passion for technology, problem-solving, and coding. In addition, reflect on your career goals and consider if they align with the diverse opportunities available in fields like software development, cybersecurity, artificial intelligence, and related fields. It is also a good idea to think about your proficiency in mathematics and logical thinking, as well as your willingness to engage in continuous learning to keep pace with technological advancements. Your personal commitment to developing practical skills through hands-on projects will help with whatever goal you have. Those who are compatible with the demands of this major and find joy in studying it tend to grab opportunities when they present themselves and excel.

*Names have been changed upon request.

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