

Programming, a skill for all

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ONE of the first-hand twenty-first-century skills would be the ability to write computer programmes. However, if you study business or arts, should you learn programming? The answer is, yes, you should. Programming helps grow a learner in you and assists you to become tech-savvy to many extents.

Programming allows you to become versatile and broaden your horizon. A report on "Being Fluent with Information Technology" published by the National Academy of Sciences in 1999 had some points that students need to manoeuvre, understand and work critically with information technology. The report's essence was that programming hones someone's understanding of computer/smartphone/software applications. Without programming, the knowledge of soft applications/computers is vague. Thus, whether you know a little bit about computers or not, you should learn the basics of programming at least up to a certain level to understand how computers or systems like computers work.

Programming is another example of the adage 'knowledge has no bounds'. Knowing about computers is not enough if one does not understand how the software works. Thorough knowledge of digital literacy or information systems would require knowledge in programming essentially. Maybe someone has opened up Microsoft Word and typed words on it. Knowing programming not only makes one different, but it allows one to increase ability to apply information technology to solve problems arising in real-life situations. If someone has programmed on an initial level in C or Python, one will know how to logically implement a programme to tell the computer what to do. By doing so, one also gets basics done and can engage with programming further. They can also modify desktop applications by adding a few computer programmes if they need to. They can also add programming ability in the CV. The skill only adds points to the recruitment possibility. Recruiters would be impressed with this skill.

One of the reasons students of non-CSE departments engage with programming is that they can choose a career in computer programming, although they belong to a non-CSE department. The internet can serve as the best resource for e-learning, especially e-learning based on computer programming.

Suhana Ahmed, a student of Business Administration from Northern University, Bangladesh, talked about the basics of programming and its impor-

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tance. "I always felt interested in the underlying stuff of billing software. I learned C programming basics from my brother, and I took lessons from

YouTube tutorials. It helped me to learn about the way maths is closely related to programming," she said.

One tool business students need is

Microsoft Excel which is used widely for its calculative support. Not even business students, students from non-business departments also use this software. The programming inside Microsoft Excel is VBA. VBA is not a beginner's stuff to get along with, but if someone wants to be deeply involved with banking and finance and needs to use Microsoft Excel, they might need to know about VBA. For data analysis, Python and R are great as language choices. Using Python, one could do data analysis by typing simple programmes. Generating a graph using Python is pretty easy too. Having a grip on Numpy, Sci-py, and knowledge on essential bits of statistics will make someone a great starter in the field of initial level data modelling or analysis.

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"Anyone can pick up the syntax over a weekend if anyone wants to. However, the most rewarding experience is perhaps training your mind to think more logically," adds Mursalin Kabir, analytics engineer trainee at Intelligent Machines Limited. For research purposes, Machine Learning applications, analysing a dataset to figure out the behaviour of the dataset, Python, or R is of great assistance. To learn Python, C, or C++, one can enrol in online courses and follow up. Or, one can catch up with the already available set of tutorials. "This is the beauty of Python: there are thousands of materials to learn from, and you can't go wrong with any of them. However, one thing to keep in mind is that tutorials are not everything. You need to practice and implement your ideas. That's the most important part," adds Mursalin.

"Everyone can benefit from learning the basics of computer science. The questions it teaches you to ask – how do you accomplish a task, can you find a pattern, what data do you need – are useful no matter where you go in life," said Bill Gates. Regardless of one's department, carrying on with learning programming only benefits one's critical thinking ability and makes you stand out from those who do not know how to programme. It also shows that you are passionate about learning. Get started with it.

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