**[What are the necessary things to do in 4 years of B.Tech in CSE course?](https://www.quora.com/What-are-the-necessary-things-to-do-in-4-years-of-B-Tech-in-CSE-course" \t "_blank)**

College is the time to open your mind to wide variety of ideas. As a CS student you especially want to spend a lot of time converting complex problems into simple logic.

1. Know all the facilities and infrastructure offered by your institution. Walk to the library and labs and spend a few hours every week. It is ok if you don’t understand most of the stuff.
2. Offer your time to various professors and clubs. You could proofread their books, code their websites, run their simulations, help manage their workshops and so on. Such contacts will be very useful in the long run.
3. Switch to the terminal. While you want to try multiple platforms, shoot for a Linux distro as your primary platform. If you are starting now, you could just move to Raspberry Pi for your main hardware.
4. Open an account in Github and take up an interest project [[Build software better, together](https://github.com/explore)]. Start contributing by downloading the code and running basic tests. Ask questions, file bugs and write documentation. Eventually you will get the boldness to contribute code. If you are a CS student you should plan to spend 10+ hours on open source contribution every week.
5. Open an account in Stackoverflow and start asking questions when you are stuck [and cannot find an existing question]. Eventually you could start answering there.
6. Pick one language where you want to develop a strong expertise. It could be anything that is convenient to you. Python, Ruby and Java are usually the best for a beginner. Spend a lot of time with its manual.
7. Get started with an IDE like Eclipse or Sublime or Atom. If network connection is reliable you could try C9. Try debugging when things don;t work.
8. Write a program every day - it could be a simple sorting routine or a complex graph search program. Programming should be like brushing teeth. If you don’t code for 2 days, you stink.
9. Open an account in Hackerrank/TopCoder and at least for one semester [maybe your 3rd/4th] try your hand at competitive programming. If you like it at that point continue and even try for the ACM ICPC. If not, spend on other computing activities.
10. Understand that computer science is more than mere programming languages. Spend time transforming a series of inputs into output using pencil and paper where possible. Like other good engineers, use the pencil/notebook, whiteboard/marker a lot. You will be judged on that in the future.
11. By the end of your second year, start to read IEEE journals. You can start with the Spectrum and then survey papers in topics of your interest. Eventually move into cutting edge research ideas.
12. By the end of your 3rd year, look to start something - a startup idea. Spend at least a semester there. If it works, continue. If not, move on.

As a final note, remember that in college you will have scope for a lot of distractions. You will hear of your friends writing x entrance exam or doing y application. Don’t panic. Life is quite long.