

The Call of the Bytes: Making the Switch to Computer Science as a Career

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In today's world, people change jobs and careers several times in their lives, and knowledge and technology are more diverse and intricate than ever before. Just as people rarely stay in one company or field for a lifetime, deciding on the perfect career area at age eighteen is no longer necessarily a reasonable expectation. Since computer science encompasses such an intriguing, ubiquitous, and wide range of topics, and with the emergence of Web2.0 applications, it is no wonder that someone could be lured to the field after completing her undergraduate degree. As one of these individuals, I have headed full force into computer science after gradually testing my interest, two years after completing my Chemical and Biological Engineering bachelor's degree. I will outline some general things that someone interested in computer science as a post-baccalaureate pursuit will need to know, and give advice about how to handle some things one might encounter, based on my own experiences. This information is also useful for those in computer science who happen to meet one of these switchers, because although the switcher may not be an expert in the field she is coming from, a fresh and interdisciplinary point of view can be helpful for any project.

To decide if computer science is right for you, take gradual steps to test the field. Coming to CCWIC is a great start. Shortly after my undergraduate degree, I contacted Tracy Camp from the Colorado School of Mines to ask about computer science, since I was interested in how I could learn more about the field. The Grace Hopper Celebration happened to be in Keystone, Colorado that year, so Tracy invited me to come if I could work for her. It was an amazing experience to see all that is going on in the field. It is also the perfect example of what surrounding yourself with motivation, role models and exciting computing projects can do for your drive to keep going. Read about current research on university websites, read about the latest tech news, and eventually, take a computer science class. The logistics of switching to a career in CS will depend on your background, but one good way to change careers is to get a master's degree in the new area. Unless you have done a significant amount of programming at one of your jobs, this is probably the best option. For most people, this will require completing undergraduate courses that are prerequisite for higher level classes in CS.

While taking courses, it is a good idea to talk to some of your professors about your plan. They will likely be understanding and able to give you some advice. Instead of being nervous about suddenly being in a field you know relatively little about, ask questions and vocalize your enthusiasm. Enter every semester with a positive attitude and feelings of confidence. Recognize from the beginning that people will be unfamiliar with your situation. People will ask whether you are an undergraduate or a graduate student. You may get the same looks when you announce your intention to bosses or coworkers. Be prepared for confused looks, but stay self-confident.

Though there is a lot to learn, it is completely possible to switch fields to computer science, and your background can be used to your advantage. Since a large part of computer science involves communicating with people in other fields in order to develop a product, it can only be advantageous to have a person on our side that has some experience in other areas. Switchers should be proud to move to computer science, and others can welcome their fresh perspective.