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Careers within Computers

Many people who have some type of experience with computers and enjoy it decide to major in it, but do not realize what part of computers they would like to work with until it is too late. Most people only see coding or game development as part of computer science, but that is not the case. There are more than just these two types of jobs within the field. Three overarching fields in this major are Information Technology, Computer Science and Software Engineering.

Within the field of Information Technology (IT) there are various career paths to follow. It is possible to find work as a network architect, information security, or as computer support for example. In this field you would be more likely to focus on maintaining networks and databases from viruses and type of irregularity that can happen while working with computers. This can also have you researching using and figuring out what the best software and database option to use are as to make sure data is flowing smoothly between the network and software and hardware as this is the field that has focus on this component of computers.. Within this career path, you are more likely to for a business and organization and rather than focusing on technology and creating new programs yourself. This path is a viable option but if appeals to you but not fully what you might enjoy, Computer Science is a field closely related to this one.

Computer Science (CS) deals with deeper into software and mathematics. As a CS major, you will likely learn one main coding language, and the focus of the degree will be towards making sure to understand the correct patterns, algorithms, and structures for most programs.

This field focuses on manipulating data rather than simply maintaining it as within IT. This will also have understandings with the hardware and how the software affects it, and as such you as a CS major will have to understand how the two coexist and use each other. This is more of the middle ground in the computer field. You can receive the job options of an IT specialist but with having some knowledge of coding can be web or software developers. However in this field you are more likely to continue onto the graduate level which unlike the other two has more of an impact because it is to focus more on something such as artificial intelligence.

If CS is the middle ground, the other side of the spectrum would be Software Engineering (SE). As a SE major you learn multiply coding languages and while in undergraduate studies you will have to differentiate and take electives towards your specified goal. This could lie in game and modeling systems, computer network architecture, and software development. In this field rather than just maintaining or manipulating data and software, you are learning to create apps and software that others have built and coding for sprites and movement if you decide to go the game development route. Because you have the ability to manage and create your own software this major is incredible intensive and time consuming, because you must learn and be on top of new technologies and able to distinguish between different types of code.

My choice of study is SE because it is a viable option and in the future I would like to create my own security software and just be able to maintain a safe environment from people who take advantage of this knowledge when they have it.