

Fields Report on Computer Science Fields

The technology in our society is improving every day to continually provide new job opportunities for people who are interested in the STEM fields of work. Such possibilities revolving around computers and technology are probably the most popular careers. Some of these careers can be divided into more specific fields of study such as computer science, software engineering, and information technology. There may be a lot of competition because of how promising a job in technology may seem, however, depending on the job that you wish to have there will be many difficult determining factors to test those who are looking at similar positions.

Computer science is a branch of science that is defined as the principles of computers and algorithmic processes as well as their hardware and software designs. The implementation and impact of computers and technology on society are also included in this field (Tucker et. al, 2003, p. 6). Computer programming is probably one of the most popular fields of computer science as many people can pick up how to do it through various online tutorials. Programming can be done through different languages to transform software designs into computer-readable instructions. This field applies a lot of the methods and principles of computer science such as mathematical processes and critical thinking to figure out how to code what needs to be done and work through any problems that may arise with their work.

Software engineering is different in that this branch systematically applies technological knowledge used to design and develop software. This is done by continually testing and maintaining the programs and other operating information used by the computer. A systems software developer is someone who designs new technology to be used for various operating

systems. This field is diverse as it requires familiarity with programming languages and skills from software engineering but also the ability to properly handle the digital information included with the software.

The study or use of computer systems to acquire, process, store, and distribute digital information is called information technology. This includes computers and computer systems, but it can also extend from mobile devices to the television. Information security analysts work to protect information in existing systems and offer security measures for any vulnerabilities in the data. Their jobs rely on information technology skills to ensure that the information is handled correctly and will not be breached. It also uses general knowledge involved with computers and technology and how their programs work.

The field I am most interested in is being a software engineer in game development. This is because I love playing video games and believe it would be incredible to work on creating a fun game for people to play. This field uses programming languages, data modeling, problem-solving, and computational mathematics to be able to design and program video games. All of these skills and methods stem from the different varying fields of computer science.

To conclude, it seems as though it is very financially beneficial to find a job in the STEM field as there are many high paying jobs that focus on the different types of computer science like software engineering and information technology. These fields of computer science all work together and are similar in many ways as they deal with different forms of technology systems. However, they are also different in their own way, allowing for more specific jobs and

knowledge to be used in that field. Not only is technology becoming a much larger aspect of our life, but it is also helping the economy with the new jobs and projects it opens up for people.

Report Report

In order to write this report on the various computer science fields, I first wrote an outline for the basic requirements for the paper. I bullet-pointed the different information I would need for my paragraphs and thought about how I could place everything in an order that made sense to what I was talking about with an easy transition. I also posted links from websites that I thought would be helpful in providing accurate information. This covered the “Think” portion of the FGCUScholar skill. When writing my report, I evaluated and analyzed the information from sites I thought as trustworthy based on their validity and wrote in my own words or cited my information. I thought about who would be reading my work and what information I wanted to provide for the reader. In editing and revising my work, I reread to see if the syntax flowed together as well see if there were errors in grammar or anything else in my writing. I also had a friend of mine read this to make sure that they understood what I was talking about as well as if they had any suggestions for my writing. With their help, I was able to change a few small details about my writing to make it clearer by rewording things differently. This entire process allowed me to learn and research more about what my major entails as well as the more specific details about different computer sciences.

Citations

<https://k12cs.org/defining-computer-science/>

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3.1.52 Syn: SE, SWE

ISO/IEC/IEEE 24765c:2014

ISO/IEC 19770-1:2017 Information technology -- IT asset management -- Part 1: IT asset

management systems--Requirements, 3.24

<https://www.computerscienceonline.org/careers/>