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# Fields Report

"The science that deals with the theory and methods of processing information in digital computers, the design of computer hardware and software, and the applications of computers." (Dictionary.com) That is the definition of computer science. It is simply an umbrella term that consists of many fields including software engineering, information technology, artificial intelligence, etc. Although computer science is the larger branch it is really a field in itself as it focuses on different aspects of technology.

The similarities and differences between software engineering, information technology, and computer science are relatively difficult to explain as these fields tend to overlap in various ways. I think it is more beneficial to comprehend the similarities between them first. Each of these deal with computer software and all things related to them including hardware, theory, programming, and systems. For example, individuals with those degrees might specialize in programming development or app development. They each require an intimate understanding of computers software and its applications. As they each focus on the implementation, development, and maintenance of software systems, where they each differ is job application. Software engineers find answers to problems and create software to solve these problems or make current processes efficient. These solutions must be designed, created, and maintained by them thus introducing careers like computer programmers, software developers, web developers, and software engineers. Computer scientists are, as expected, scientists who research and

develop not only theories but applications of computers. Careers in this field deal with software, hardware, infrastructure, and services as they contain a broad understanding of each component. Individuals could contain the title of computer research scientist where they help improve current technologies in the world of medicine, business or finance. Information technology targets digital information and its acquisition, storage, and distribution. It blurs the lines between software engineering and computer science as it contains aspects of both with merely a focus on digital information. Some of the many occupations include database administrators, software developers, computer network architects, and information security analysts.

I am personally interested in software engineering because of their focus. They create software that the entire world revolves around. Application software such as Microsoft Office and system software such as Windows 10. Neither of these is essential, however, they make both of their respective processes more efficient. Computer science is just as impactful to society; however, it requires a broad knowledge of various components that I simply could not withhold.

Each of these fields is very similar and, in many cases, would overlap circles on a Venn diagram. Where they differ is their focus either on software, services, infrastructure, hardware, or all of them.

Works Cited

Writers, Staff. “Explore Computer Science Careers.” *ComputerScienceOnline.org*, ComputerScienceOnline.org, 28 Nov. 2018, www.computerscienceonline.org/careers/.

“Computer Science vs Software Engineering: 5 Important Facts.” *Interesting Engineering*, 2 May 2018, interestingengineering.com/computer-science-vs-software-engineering-how-are-they-different.

“Computer Science.” *Dictionary.com*, Dictionary.com, www.dictionary.com/browse/computer-science.