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The Field Report

Computer Science, Software Engineering, and Information Systems are growing degrees and each deal with programming. However, all three of these don't share the same principles and differ very frequently. Computer Science is the branch of science that focuses on processing information through computers. This being relate to anything including health, mathematics, and environmental science. Computer science also is more data related than Software and Information system majors. This meaning Computer Science majors delve more into algorithms and data transformation. For example, when a problem is shown computer scientists use algorithms, a process or set of rules that are used to solve a problem, for math problems to figure out equations. Your calculator is essentially a computer which uses algorithms to solve math problems. By dividing 4 by 2 you essentially create a problem that the calculator has been programmed to solve through algorithms. Then, if Computer Science majors focus on processing the information who focuses on the programming of applications? Software Engineers tackle this part only focusing on the program itself and correcting any bugs from start to completion. Software Engineers are more disciplined than the other degrees making them more engineering focused. For example when bridges need to be checked for their strength civil engineers are called in to inspect the bridge to test it. The same concept is exactly the same where software

engineers scan the code for things like bugs. As bugs and crashes occur, engineers must use their knowledge to solve the problem. Going back to the calculator example, the software engineer is the algorithm and has set ways to solve then issue. They also are mostly responsible for the maintenance of their applications making them the mechanics of the three. Finally, Information Systems which is the study of managing information through computers. There primary focus is on the transferring of information through computer hardware like storage devices or cloud memory systems. For example every time you access a smart device like your smartphone or an iPad you essentially are using IT services. Compared to Software Engineering and Computer science, IT majors try to understand how memory is transferred and generally how to make the transfer faster. While all three of these fields are different, they all fall under computer science and have sub-focuses. For example, the study of artificial intelligence focuses on creating a digital mind that can think like a human. Humans can create ideas and more because we have a free thought complex, making us able to come up with ideas. A second sub-focus being cybersecurity which focuses on the protection of data and privacy. With technology becoming more software oriented, cyberattacks are happening more times than none. Cyber security can rank from civilian programs to government related as data security is very important. Lastly, data scientists are in big demand as huge tech companies like Google and Facebook. They focus on the analytics of most business. For example, they can be more focused on the analysis of how customers enjoy a product or if they think the price is worth it. I myself am more interested into the study of artificial intelligence as movies like I-Robot, Matrix, and Ready Player One. This interest coming from these movies and experience of how advanced our current generation of AI'S are. These ideas and sub-focuses being important and showing how little we still don't know about programing.

Sources

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