

Dear Father,

Here are the ins and outs of computer science, software engineering, and information technology. The three of these careers may have some similarities but are still different. Software engineering is a discipline having to do with the application of theory, knowledge, and practice to effectively and efficiently build reliable software systems that satisfy the requirements of customers and users (Scott Vanselow 2018). It also has to do with learning requirements elicitation, analysis and specification; design; construction; verification and validation; deployment; and operation as well as maintenance of a software system (Scott Vanselow 2018). However, computer science is the study of computers and computation systems ("What is Computer Science?" 2018). It has to do with the studies of artificial intelligence, computer systems and networks, security, database systems, human computer interaction, vision and graphics, numerical analysis, programming languages, bioinformatics and theory of computing ("What is Computer Science?" 2018). Computer science deals more with the designing and analyzing of algorithms to solve programs and study the performance of computer hardware and software ("What is Computer Science?" 2018). Finally, you have information technology. Information technology is more of a broad field but essentially has to do with network administration, design, telecommunications, computer support, computer science, software programming, system analyses, as well as computer hardware, software, or networks used to store, create, secure, and exchange (Brandwagt) . As you can see the three of these career choices do have similarities but still focus on different key components of technology.

Although there are many different fields, Computer science is typically a common field when it comes to computers and technology. It tends to have a wide variety of career choices such as a Computer & Information Research Scientist, Social Science Research Assistant, Computer & Information Systems Manager, etc. These career choices while they all use the fundamentals of computer science it may differ according to what your job requires. For instance, a Computer & Information Research Scientist are more or so known in the business, medicine, and science industries. They effectively use computer science to analyze and solve problems, they are looking to improve and develop computer algorithms aimed to address

specific needs (Michael Hoffman 2018). You also may have a Social Science Research Assistant who use their knowledge of computer science and statistics to make huge amounts of information understandable. They gather, analyze and manage scientific data from surveys or lab projects and work alongside social scientists to provide accurate information (Michael Hoffman 2018). Then there is also a Computer & Information Systems Manager who use their knowledge in computer science to take on leadership roles and help provide guidance to teams of hardware engineers or even software developers, they may even help with the technical staff (Michael Hoffman 2018). Essentially, they use their knowledge to manage computing infrastructures. There are many more career choices in computer science but all of them will require different aspects of computer science or focus more on one aspect of it. It's what makes the field so interesting to me there are many different directions you could follow it is not just bond to one path.

I understand that this is a lot of information to process and that you might not understand what intrigues me so much about this. However, this is something I am passionate about especially possibly having the chance to be a Computer & Information Research Scientist. Pops you know I have always wanted to change the world, to be a part of the solution. If I could help by making algorithms and being a tech nerd in a hospital to help save a life that would be a dream come true sure it might be one hospital or one patient, but one life makes a huge difference. I could do what motivates me and drives everyday as job even if it is just at sitting computer making algorithms. In the end there are many different fields in regard to technology, but they use different aspects and while you might think it is pointless, it isn't to me. This the future and I want to be a part of something bigger than myself.

Citation Page:

“Module 8.” *Prof. Vanselow - Module 08*, sites.google.com/view/prof-v/lms/cop-1500/module-8.

“What Is Computer Science?” *What Is Computer Science? | Undergraduate Computer Science at UMD*, undergrad.cs.umd.edu/what-computer-science.

Brandwagt, John. “What Is Information Technology?” *IT Recruiting Firm*, www.inteqna.com/blog/what-is-information-technology-0.

“Explore Computer Science Careers.” *Computer Science*, www.computerscienceonline.org/careers/.

Report (report):

When it comes to writing my report, I used writing by using my knowledge and skills from Comp 1 and 2. I kept a lot of my papers and websites that I could use as a guide especially for citing. As well as reading my paper out loud 100 times and to my lovely girlfriend. When it comes to critical thinking it was easy for me to analyze and evaluate being that my mother and her side of them family think I am wasting my life, so I have already fought this case before. I thought of why I loved these fields so much, what interest me and motivates me. Lastly, I used information Literacy, I spent two hours looking for websites that would give me the best information to fight my case.