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### Fields Report

Computer science focuses on the theory of computational applications. It is based in mathematics. Their goal is to understand how and why various computer processes work the way they do and try to find ways to improve it. Computer scientist use algorithms and advanced math to create different ways to manipulate and transfer information. They tend to be concerned with operating systems and implementation. Software engineers are in charge of researching, designing, and developing computer equipment. They often deal with hardware-to-software integration so it is helpful for computer engineers to have somewhat of a grasp on computer science. They are able to solve hardware problems and build state-of-the-art machines in order for a computer to multitask by combining the concepts of computer science, math, and engineering. IT professionals use the technology created by computer scientist and software engineers to create a larger system that solves business problems. They can construct networks from the established building blocks so that a computer is able to carry out a task. They often have to work with many business clients to help explain how to solve tech problems and create a plan that will benefit the business. To be an IT professional you must be good at critical thinking and be resourcefully in the sense of using what is available to them.

One field for someone in computer science is to be a web developer. Web designers have the task of designing and creating websites. They are tasked with making the clients vision a reality. They make sure all the technical aspects such as performance,

capacity, and speed are working properly. The average annual pay for a web designer is \$66,130. Educational requirements vary depending on the type of web designer someone wants to pursue. The degree ranges from high school diploma to bachelors. For a more specialized position employers prefer the worker to have at least a bachelor degree in computer science or programming. Another field is software developer. They are tasked with either developing applications that allow people to do specific things on a computer or developing the underlying system to run the devices or control a network. The average annual pay for software developer in applications is \$100,080 and for system software its \$106,860. Some important qualities to have include: analytical skills, communication skills, creativity, detail oriented, interpersonal skills, and problem-solving skills.

Typically software developers have a bachelor's degree in either computer science or software engineering. A third field is computer network architects. They are tasked with building data communication networks. These can range from small connections to next-generation networking capabilities. An example of this would be connection between to offices or cloud infrastructure to serve many customers. The average annual pay is \$101,210. Computer network architects need at least a bachelor's degree in computer science, information systems, or engineering; however, some employers prefer a master's degree.

While I don't see myself having an interest in any of the fields, I am sure I could find use of computer science in whatever career path I choose. I aspire to become a teacher in the future. I can use what I learned about computer science and create websites that my students could use to find resources that could help them better understand what they are learning.

### Work Cited

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