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Introduction to Computer Science

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## Fields Report

Computer science is defined as the study of computers and computer systems. This field deals mostly with theories, designs, developments, and applications of computer software and systems. Computer scientists also work with algorithms. Algorithms are used to design and test computer hardware and software. Software engineering is the designing and developing of software for computers. It applies the principles and techniques of computer science but is focused on the building of the applications. Software engineers work a lot in customer service helping with the installation and operation of computer software systems. Information technology is defined as the use of any computers, storage, networking, infrastructure and processes to create, process, store, secure, and exchange all forms of electronic data. Information technology seems to be the umbrella that encompasses the others.

After getting a degree in computer science there are many different careers that one can go into. The one that most likely will come to mind is becoming a computer programmer. Computer programmers code in a variety of languages to make programs for computers. This work can be done individually or in teams. Another job option is network administrators. This one is not as commonly known to those outside the computer science world, however, they are in charge of organizing information technology and keeping computer software running smoothly. This position is often outsourced, hence it being not as popular. Computer network architects are

another job field a computer scientist can go into. This is a growing career field because it works to fix problems with computer security. More specifically, computer network architects create data communication networks.

The career field that most interests me in the field of computer science is computer science education. I have always had a passion for learning, so sharing that passion and helping others learn is extremely interesting to me. This could be high school teaching or post-secondary teaching. Computer science has become increasingly popular over the past years. According to the U.S. Department of Labor's Bureau of Labor Statistics, "74 percent of new STEM jobs through 2022 will be in computing." This means the education of computer science is super important for the next generation.