

## Fields Report (and Report Report)

The terms computer science, software engineering, and information technology are confusing to many people. While they are all similar fields, they each have differences and unique applications.

Careers in computer science, software engineering, and information technology all require intimate knowledge of computers. According to dictionary.com, computer science is “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” (“The Definition Of Computer Science”). Computer scientists focus on researching and creating new and better algorithms, which are steps to solve a problem. This would include the development of new and improved computer languages that work better than the ones available now. In contrast, software engineering deals more closely with improving algorithms and developing better ways to use them and languages that already exist (“Computer Science Vs. Software Engineering”). They create applications that satisfy people’s needs (“What Is Software Engineering”). Information technology focuses on storing and manipulating data for clients using software programs, often in a business environment (“What Is Information Technology”). It also involves installing computer systems and making sure that they continue to run smoothly (“What Is The Difference Between”).

There are several different fields and careers to choose from within computer science. For example, computer and information research scientists use computer science to design new algorithms that improve and replace the old ones. They can develop programs designed to work for many different fields, including business and medicine. Software developers also use

computer science. They create computer programs including applications for specific tasks or more broad programs that control the computers of networks. Information security analysts must use computer science creatively to develop ways to keep computer systems safe from hackers. They must constantly be creating new effective ways to prevent cyber attacks as the attacks become more complicated and creative (“Computer and Information Technology Occupations”).

I am most interested in computer and information research. I am considering a career in research or medicine. If I also become trained for computer and information research, I will be able to use these skills combined with my training in science to solve problems that are difficult to solve otherwise. Issues that would require understanding of both computers and science would be solved much easier by a person who has intimate knowledge of both fields. Communication between both fields is important, and someone who understands both would be better able to work with a team to solve these problems.

Most people use the terms computer science, software engineering, and information technology interchangeably, but they all have different meanings. All of them deal with technology and computers, but information technology tends to be in business environments while others are used in many different areas. Computer science focuses on creating new algorithms, software engineering focuses on improving the algorithms already available, and information technology focuses on installing programs and managing databases.

## Works Cited

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## Report Report

When writing my report, I used the three FGCUScholars skills, which include thinking, writing, and discovering. Before I began, I thought about what I already knew about computer science, software engineering, and information technology. I had previously done some research on these fields in order to help me decide on a major. I also thought about all related information that I learned in this class and took notes on it to guide me when I began my more extensive research. Then, I researched the terms presented so that I could gain even more knowledge about their similarities and differences. I used several different sources to verify that the information I found was correct; I compared the information to what I already knew about the topics to make sure that there were no conflicts. I also used what I learned in Composition 2 to make sure my sources contained reliable information. As I transitioned to the writing stage, I organized all of this information by creating an outline. When this was completed, I began to write my report, following my outline as a guide. After I formatted all of my information correctly, I proofread my report. In addition, I sent it to a few other people to proofread. This way, I could be sure that what I wrote was not difficult to understand, and they would find any errors that I may have made. As I was writing my original draft, I made some discoveries. For example, I discovered that computer science and software engineering are more focused on programs, while information technology is more business related. I also found out that there is a field of computer science that could be useful to me as I pursue my interest in research.