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Fields Report

With the exponential growth of the computer industry, distinguishing between the multitude of fields and each of their tasks has become more rapidly blurred to the average person. Specifically, many do not understand or know of the differences between computer science, software engineering, and information technology. How they are interwoven and how they are different and attack the many problems computers are entrusted to work out.

Computer science is a more mathematical approach to solving a problem using programming how a problem can be solved improved upon and automated further. (Interesting Engineering). They are the main driving force behind A.I., Data Security, and graphics. Software engineering is not only about the programming but also the design and operation of their programs being developed. They are the developers who help design the programs and follow the program through its life by picking the programming language designing the overall architecture, testing, and then maintaining it (Software Engineering 2014). They work with embedded software, games/app development, and quality control. Lastly information technology in the more business-focused field whom deal with organizing, maintaining, and troubleshooting database, websites, and servers. They work with servers, databases, and could computing in order to manage business and customer related affairs.

In the main field of computer science, there is a multitude of subfields in which you can specialize into according to computerscienceonline the most future-minded being artificial intelligence, which is the development of in-depth programming to accurately simulate the human mind using complex algorithms. They are often found not just in research labs for large companies of the government but also in gaming industries. In terms of growth, computerscienceonline shows that there are two main fields that have the highest growth rate; Data Science, and Security and Privacy. These two fields are at the forefront of most computer fields. Data science is about constructing and using complex algorithms to collect, solve, and sort large amounts of data efficiently for creating research, models, data mining, and statistical information. Security and Privacy are about securing information and data from cyber-attacks and hacking. Every level of business from the government, large companies, and small business; to your own personal computer uses and needs security measures to protect your data. Scientists in this field produce and create new and more efficient ways to encrypt and encode data using a vast array of programming approaches (computerscienceonline).

Out of the numerous fields of computer science, I find myself most interested at the moment is systems software developer. This field is all about operating systems and user interfaces. I am very interested in creating my own operating system from the ground up instead of how Microsoft and Apple have been piling new code and technology on top of the old code to update their operating systems. I feel like we need to step away from the past and move towards the future. Thus, using outdated and less efficient code from bygone eras is hindering our growth, we all understand backward compatibility is important but technology from twenty years plus years ago is too far.

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