Spencer Buchanan

Professor Scott Vanselow

Intro to Computer Science

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# Fields Report:

Computer science concerns itself with developing the theory and algorithms for computers to use to function. Software engineering takes the theory and algorithms made by computer scientists and develops software. Information technology determines how to use programs and software to store, sort, and manage a wide variety of data. These can be summed up by: Computer scientists develop algorithms and theory that software engineers use to write programs for information technologists to store data in.

Computer System Analysts are typically called in by companies and are asked to determine any bottlenecks in said company's system and how to improve it. They typically use their skills in computer science to determine the most efficient ways of communication between systems, efficient practices within the systems themselves, and they also write small management programs to manage resources within a system.

Network and Computer System Admins maintain and upgrade when necessary the systems behind companies websites and data management, they also find and solve problems within the system relating to broken hardware, faulty software, and other system related issues. They work with hardware that is typically deemed 'mission critical' to a company, and need to be very precise in their work. The skills they use from computer science are the

problem solving steps to find issues, various coding techniques, knowledge of hardware and systems and how they interact, and various other minor parts of computer science.

Information Security Analysts analyze, detect, and patch up holes in companies computer systems to keep their data and hardware safe from attackers. They find any possible backdoors in their systems and figure out ways to fix them. They also commonly use a form of hacking called ‘white hat hacking’ to essentially sit in an attacker's shoes and find holes in their company’s systems. They will use their knowledge of various coding languages and the ins and outs of the systems in order to find these holes and also use their experience to patch them up and keep attackers out.

My field of interest is Aerospace Systems Engineering. As an Aerospace Systems Engineer I'll design and or code the various systems for air and space craft of various types, and the systems I will work on will include the propulsion management systems, resource monitoring, communications to and from the craft, scientific measuring and monitoring equipment, and many other systems. I am hoping that this job will get me a seat to mars, and to be one of the first few colonists there to work on and manage their computer systems. In this field I'll use skills from computer science such as programming, problem solving, and systems analysis.

Works Cited

"Computer and Information Technology Occupations." Bureau of Labor Statistics, United States Department of Labor, 24 Oct 2017, https://www.bls.gov/ooh/computer-and-information-technology/home.htm. Accessed 11 Nov 2017.

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