The computer science field works with algorithms and programs in a computer as well as assembles the hardware of it such as the motherboard, graphics cards, disk drives, etc. Software engineering takes a different approach where it applies the use of engineering and mathematical concepts to design, develop, and maintain computer software that is reliable and efficient. Another important field is Information technology (IT) which is working with the hardware in a computer to store, retrieve, exchange and manipulate data as well as maintain the computer, network, and databases, usually for a business or enterprise. While these different fields have some similarities, the differences can be explained through a simple chain of: computer science creates and programs the computer for software engineering and IT, the software engineer, of course, develops efficient software for the computer to use, and IT maintains the computer and things pertaining to it afterwards. Essentially, computer science is a broad category in which information technology and software engineering are connected to.

One career path for computer science is computer programming. This involves using knowledge of programming to write and test code for software and computer applications in order to make it functional. A computer programmer will, in essence, take an algorithm, created using computer science knowledge, and manipulate it to make it readable for the computer to implement. Another career choice is a computer hardware engineer which specializes in, as the name states, the hardware aspect of a computer where they research, design, and test the hardware components. For a computer hardware engineer to do their job, they must know how the data in the hardware is used and how to work with it in order to create a functional piece, which is where computer science comes in handy. A network security administrator, or security administrator, is an additional field that requires knowledge of computer science in its everyday work. As with the computer programming, security administrators need to have in-depth knowledge of programming languages so they can properly administer and troubleshoot security problems.

I'm most interested in the web development field of a computer science field, because it's something that I enjoy doing and learning about. Having a computer science background when it comes to becoming a web developer isn't necessarily required, but it would be a good foundation for the career field. Having knowledge of the programming that goes into creating databases and the different applications used in developing a website is key. Someone with a computer science background can build something from scratch using their knowledge of patterns, algorithms, as well as use their understanding of what's going on inside the actual web application their building in order to solve the more complex problems that others without a CS background can't.