Field Report

In theory, science tends to be geared toward the research and theoretical aspect of one area, and engineering is focusing on real-world work, with practical applications. However, due to my research on the differences between software engineering, computer science, and information technology, I've come to grasp how the theoretical applications differ from what ends up being taught in a scholarly environment, with a lot of the classes overlapping in both software engineering and computer science, it can be difficult to discern the differences between the two. Software engineering is commonly referred as a branch of computer science, with a "focus on the development and building of computer systems software and applications software." With these fields being able to be broken down even more into sub-classes, such as those derived from systems software. Which "consists of programs that include computing utilities and operating systems and applications software includes user-focused programs, including database programs." Information technology gravitates towards a management-based approach when compared to the computer science but is similar in this aspect compared to software engineering. Coordinating with, and managing a team is a common aspect of these two jobs, and as such communication skills and leadership are highly valued attributes that gives these fields their value. There are differences however, as information technology leans toward the user side of computers, and as such, tend to have a more interactive experience on the job.

With computer science pertaining to such a variety of sub-disciplines', the hierarchy that is associated with it tends to be extensive and ever-expanding, which is something that makes this career so interesting. One branch of computer science involves the study of artificial intelligence, or commonly referred to as A.I. In short, this pertains to giving computers an intelligence like humans and is also one of the more well-known fields, as it has been extremely

popular due to minds such as Elon Musk and using it for self-driving cars. Computer Engineering is a mix between computer science and electrical engineering, dealing with software or hardware design, as well as working with both. Computer engineers and computer scientists both go through a similar academic curriculum, as well as pursuing similar careers, but what sets them apart is the thought process behind their decisions, as well as the computer engineers' ability to work with hardware on a very small scale. A software engineering career is very similar to a computer scientist; however, it has more focus on the practical aspect of work, hence the software tag. There are two main classifications of a software engineer. The first being an applications software engineer, which focuses on analyzing a user's needs, and custom designing a code that fits. This is the main overlap with software engineering and computer science, as they both must focus on theory to get their job done, as well as understand how a computer function. This understanding of computing theory, as well as the problem solving and teamwork that is involved in software engineering is what gives me interest in this field.