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Fields Report

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Dear Ms. Hippolyte,

I am writing this letter to distinguish, describe, and identify to you the different fields of computer science. First and foremost, what is computer science? “Computer science is the study of computers and computational systems. (https://undergrad.cs.umd.edu/what-computer-science)” It is said that the main part of computer science is problem-solving. They deal with software that includes development, theory, and development. There are several different subsections of Computer Science. They include the following “artificial intelligence, computer systems and networks, security, database systems, human-computer interaction, vision and graphics, numerical analysis, programming languages, software engineering, bioinformatics and theory of computing. (https://undergrad.cs.umd.edu/what-computer-science) ” Software engineering is a field of computer science. It is concerned with the creation of software. “It encompasses concepts, principles, theories, techniques, and tools that can be used for developing high-quality professional software. (https://www.unr.edu/cse/prospective-students/what-is-software-engineering)” The significance of software engineering is that it is pretty much found and a necessity in all industries and businesses. As for information technology, it is “the use of any computers, storage, networking, and other physical devices, infrastructure and processes to create, process, store, secure and exchange all forms of electronic data. (https://searchdatacenter.techtarget.com/definition/IT)” IT is usually used more for projects compared to entertainment. Information technology is extremely significant in the business world because it is used in departments such as financing, security, human resources, etc.

The three fields of computer science that I will go over in this letter are graphics, programming languages, and software engineering. Graphics is a very popular and growing field of computer science. Graphics are important because they can be used to make complex data more understandable. It’s important because it also helps with visualization and can make communication facile. The second field I’m going to go over is programming languages. Programming languages are essential to computer science. A lot of theories are based on programming languages. Programming languages itself has different topics also. One of which is called optimization. Which basically means to make something run the most effective way possible based on the resource presented. Program correctness is a second aspect of programming language. A third aspect is programmer productivity. Creating better and cleaner languages or new features can contribute to a programmer’s productivity. Teams or individuals

may rate their productivity on the amount of software they create compared to how much is cost. Finally, I will go over software engineering. Software engineering relies on programming languages in order to design software. A big part of software is including notes and extra work so that other people can comprehend it. Other focuses within software engineering are design and projects. It is very common for a larger program to need more managing.

The field I am most interested in is Software Engineering. I would like to be able to create highly effective and great quality software in the coming future. I also feel that my best work is done when working with a large team. Designing, implementing, and developing software are all factors involved in this degree that I would like to learn to do.

Sincerely,

Francisco Greenaway