

Fields Report

Ever since I can remember computers have been integral to my life. However, for the longest time, I never quite understood what exactly was behind them. And I never imagined what a career would be like in front of one. So after researching and having a more tangible understanding of computers, this is what I've learned. The first category, computer science, deals with programming computers efficiently using algorithms. Information technology requires a different set of skills, as it mostly involves installing computer networks and systems, usually in a business environment. IT workers generally are well-versed in the systems and networking fields of computer science, as they typically need to access and maintain many systems at once. Software engineering is considered a subfield of computer science, focused on the implementation of software. By nature, software engineering is incredibly broad, and can involve designing a multitude of different projects. Software engineering requires vast knowledge of programming languages, but also requires experience in other CS fields.

To go more in depth, I'd like to dive into three CS fields that interest me the most. The first being, computer graphics. Graphics are an aspect of computer science that focuses on animation and data visualization. Graphics are implemented into projects such as movies and games, or business and statistics. The second field I am interested in is programming. Programming languages are the backbone of software and are the way we communicate with our machines. Much of the work currently done in this field is focused on making languages more efficient, requiring mathematical and algorithmic research. The final field I will go over, which is my top interest and major – software engineering. This requires knowledge of programming languages to design software. This includes program design and debugging. Software engineers create all the wonderful programs that are now used by billions of people around the world.

Software engineering is a very broad sub-field and aspiring to work in this field there are many possible career paths to look toward. The one I am most interested in is development of UI software for businesses or government agencies. I think it would be awesome trying to implement programs so workers can access schedules or streamline a business's database. But currently I am interested in working on small-scale projects, such as apps and websites. In the future though I can see myself working on a business team for a huge design project. This will require a deeper understanding of programming and the software development process, but I cannot wait for what comes next.