# CS-499 Module 6 – Journal

Emerging Technology and Artifact Update

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Choose two technologies of interest? Describe each and describe their computer science aspects, next discuss impacts they can have on personal life, career humans, etc

I started in the Computer Science program to increase opportunities for my company, with little interest outside of construction and communications which is the industry that I am in. I was amazed at the vastness of possibilities and opportunities that existed in the field. The emerging technologies that I have discovered and find interesting are Bioinformatics and Quantum Computing (<https://www.computerscience.org/resources/computer-science-trends/>).

Bioinformatics is the study, storage, and analyzation of biological information. An individual that is a Bioinformatics Professional bridges the gap between computer science and biology. These scientists look for patterns in genetic material and develop methods and software that aids in these evaluations. The impacts that breakthroughs and further studies provide in this emerging trend are to create preventative medicines, and work to detect diseases earlier to provide for more efficient treatments. Areas for potential employment in this field that is said to still be growing exponentially are Bioinformatics Research scientist, Computational Biologist, and Software Programmer (<https://www.computerscience.org/resources/computer-science-trends/>) .

Quantum computing is the use of computers that are powered to solve vast problems that require exponentially large processors. Quantum Computing uses quantum bits or qubits as opposed to binary code in desktops and laptops. Quantum computing solves large computational problems in less time than average computers. Areas that use quantum computing currently are Google and IBM but areas that show promise for employing quantum computers are banking, transportation, and agriculture. Researchers are said to be able to us quantum computing for quickly and efficiently calculating best delivery routes (Amazon delivery), most efficient flight schedules for airports and developing new medicines quicker. The largest drawback to the evolution in quantum computing is the educational requirements for entry into the field as it is said that most careers require Master’s degrees at minimum and some require Doctoral degrees. Areas of employment are Quantum Computer Architects and Software Developers, and Quantum Algorithm Researhcer (<https://www.computerscience.org/resources/computer-science-trends/>).

Part Two – Provide an update to your instructor on your progress with each category of artifacts for the ePortfolio:

Professor Brooke, I have been developing my ePortfolio page and have included a link here. I would appreciate any feedback that you provide.

<https://erik-w775.github.io/>

Software Design/Engineering

This enhancement has been submitted and I have received comments. I have worked to incorporate the comments into my code and assessment and will review once again prior to final submission. I have uploaded this project to my ePortfolio and have been developing the layout and presentation.

Algorithms and data structures

This enhancement has been submitted and I have received comments. I have worked to incorporate the comments into my code and assessment and will review once again prior to final submission. I have uploaded this project to my ePortfolio and have been developing the layout and presentation.

Databases/Datamining

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Resources:  
<https://www.pewresearch.org/internet/2017/01/26/americans-and-cybersecurity/>