# CS-499 Module 5 – Journal: Computer Science Trends and Artifact Update

Erik Wilhelm

erik.wilhelm@snhu.edu

Southern New Hampshire University

Computer science has a long history of innovation, and the spirit of discovery within the field remains strong. For this assignment, you will discuss two emerging trends or developments in computer science. These can be among those described in the module resources or trends that you research. Taking each trend in turn, explain its significance. How will it change the field of computer science? Will it also change the experience of consumers, workers, or citizens? If so, how? Next, explain how it may fit with your career interests or aspirations.

The most interesting trend that I find in 2023 is the ever-growing concept of IoT (internet of things). This can encompass anything that accesses the internet for information, storage, or communication transport. The growing amount of devices that are now network capable makes it even more important to create secure devices and secure transport methods for information from these devices. This is leading to the trends of better and more available consumer cybersecurity software and network security tools. Another large prediction within IoT is further growth of devices that be used in healthcare, such as heart monitors that report data directly to doctors in real time. (<https://www.sam-solutions.com/blog/top-iot-trends/>). The IoT trend is interesting in that you now have access to a device that can provide information to your computer or smart device from the weather outside to tell you to get up and move around. IoT will change the field of Computer Science by increasing the amount of information that is being transported on the internet causing the need for expansion and with more data the need for security rises this has created positions of IoT engineer and nomenclature of IoT security https://www.fierceelectronics.com/electronics/iot-security-how-engineers-must-get-ready-for-crush). IoT devices touch the lives of most people now with so many smart devices including TV’s and tablets, to Fitbit and smart watches. These do not fit into my work exactly, but I do work to integrate Intelligent Traffic Systems into networks, and these provide important data that makes road travel safer and provides information for growing infrastructure which is the sector that I work in.

The second trend that got a big boost in very recent days is AI and specifically ChatGPT. ChatGPT is provided by OpenAI and is chat bot that is reported to be able to answer virtually any question and provide full documentation of given subjects and parameters (<https://techcrunch.com/2023/03/23/openai-connects-chatgpt-to-the-internet/> ). This is very interesting because it carries the possibility of getting accurate help to problems that might be difficult to research as the chatbot is continuously learning how to interpret questions and provide answers. The question that seems to be the most controversial is, what people are using it for. Chatbot has shown that it can write poetry given subject parameters, papers when given topics and even debugging code. This has led to companies and educational institutions to look significantly at the technology and quickly scramble to find ways to limit its influence on learning. (https://www.thenationalnews.com/business/technology/2023/01/25/chatgpt-what-why-controversial/). I have not yet experienced anything like chatbot, but I am intrigued at the idea of receiving help when working on code projects at home when I get stuck and this would most likely be the only use I would have for it currently in my life.

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

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 will upload this project to my ePortfolio this week per module requirements.

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 will upload this project to my ePortfolio this week per module requirements.

Databases/Datamining

I have been working on my project and documentation for this enhancement and will submit the project in module 4 for review. I have downloaded and installed the opensource software that I am using to evaluate the data model from DAT-220. I have evaluated the data and began to complete my documentation. I plan to complete and submit my Enhancement 3 project this week in module 5. I will continue to build on it and work with it leading up to the submittal in module 5.

References:

Field, Karen (2021, April 06). IoT Security: How engineers must get ready for the crush. https://www.fierceelectronics.com/electronics/iot-security-how-engineers-must-get-ready-for-crush

Sakovich, N. (2023, February 9). Top 5 IoT Trends in 2023. SaM Solutions. <https://www.sam-solutions.com/blog/top-iot-trends/>

Wiggers, K. (2023, March 23). OpenAI connects ChatGPT to the internet. TechCrunch. <https://techcrunch.com/2023/03/23/openai-connects-chatgpt-to-the-internet/>