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CS 499

5-1 Computer Science Trends and Artifact Update

Part One:

1. What is the significance of each trend?

The two trends I decided to research are Augmented Reality and Virtual Reality. With video gaming continuing to grow more and more, AR & VR are becoming more popular. Games are now able to mix the virtual world in with the real world. "Gamers may anticipate more lifelike graphics, enhanced motion tracking and more haptic feedback as virtual reality technology develops, further obscuring the boundaries between the virtual and physical worlds." (Bradshaw, R., & Editorialteam, 2025)

With AR, it is more for enhancing and modifying your surroundings while VR is like a simulation with a whole new world. In VR, you can pretend you are on the moon or roaming the Earth with dinosaurs. There are actual game places where you can feel fully immersed in the VR that have sensors for you to wear as you play the video games. In AR, you can see some VR things such as animals, spaceships or aliens while still seeing your surroundings wherever you might be standing. It is kind of like digital content, but in the real world compared to VR is a whole fake world.

2. How will each trend change the field of computer science?

I think VR and AR will change the field of computer science because it will add many new job opportunities for developers and game designers. With eye-tracking and gesture controls advancing, human to computer interactions will become more and more immerse. From an educational point of view, I can see it being very helpful for students. With VR headset, kids can practice dissecting animals or take a closer look into the human bodies. They can do more

hands-on learning virtually. In gaming or entertainment, people could watch concerts virtually or have realistic VR interactions.

3. How will each trend change the experience of consumers, workers, or citizens?

The trends will change the experience of consumers, workers and citizens because businesses could offer virtual try-ons or virtual showrooms to help showcase retail items. For architects, I could see an increase in building and designing houses, buildings and stores. With VR's, for police officers or firemen, they could use them for training for real life scenarios to help them if certain issues ever happened, they would know what to do. Detectives could use AR to help recreate crime scenes and help solve cases.

4. How will each trend fit in with your career interests or aspirations?

In my career, the trends could fit into education and allow students immersive field trips, or role playing scenarios for career prep or even explore creating video games. Kids can learn differently by getting to actually view the inside of a human body instead of 2d worksheets or from watching videos.

5. Which course outcomes have you achieved so far, and which ones remain?

My course outcome is still to pay my remaining two classes to get my degree. I have 3 weeks remaining and my goal is to complete all my coursework before the weekends each week and so far, I have achieved this. I plan to finish my coursework early and have everything done by the end of the 3rd week in April. I still have my final to complete in this class and I am planning for a good grade.

References:

Bradshaw, R., & Editorialteam. (2025, March 21). *The future of video gaming: Technologies that will transform our experiences*. Apollo Technical LLC. https://www.apollotechnical.com/the-future-of-video-gaming/

Part Two:

Status Checkpoints for All Categories

Checkpoint	Software Design and Engineering	Algorithms and Data Structures	Databases
Name of Artifact Used	Calculator app/	Calculator app pre made from CS 310 class	Jukebox from CS 310 class
Status of Initial Enhancement	New spots for division, multiplication and power.	I have added new classes to the calculator	When starting this project, I was given a pre-made code and had to a student name profile along with my

			other classmates profiles they made
Submission Status	Still in progress	Working on updating the calculator	I submitted the project and it worked with no issues and tested my student made profile and verified it was linked to my login information
Status of Final Enhancement	Design is mostly complete, still adding new things each week	Still in progress, will be completed as the term comes to an end	Still in progress, will be completed as the term comes to an end
Uploaded to ePortfolio	Some parts have been uploaded, but not fully complete	Still in progress, will be completed as the term comes to an end	Still in progress, will be completed as the term comes to an end

Status of Finalized ePortfolio	Still in progress, will be completed as the term comes to an end	Still in progress, will be completed as the term comes to an end	Still in progress, will be completed as the term comes to an end