6-1 Journal Assignment

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CS-499: Computer Science Capstone

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December 8, 2024

**Part One:**

**What is the identification and description of each technology?**

Two technologies that stand out as game-changers are Artificial Intelligence (AI) and Blockchains. AI allows machines to handle tasks that typically need human intelligence, like learning, problem-solving, and decision-making. Think of virtual assistants or self-driving cars—those are powered by AI. Blockchain, on the other hand, is like a digital ledger that’s decentralized and super secure. It’s best known for powering cryptocurrencies like Bitcoin, but it’s also being used for things like supply chain transparency and secure contracts.

**What are the likely impacts on computer science or your career?**

AI is transforming computer science by pushing forward automation, smarter software, and advanced data analysis. For me, learning AI could open up opportunities in predictive modeling or even working on ethical AI systems. Blockchains are changing the game with its ability to create trust in digital systems, which could lead to exciting roles in cybersecurity, fintech, or working with decentralized networks.

**How might the two technologies impact humans, communities, or the world?**

AI has already made big changes in healthcare, like predicting illnesses, and in education, where it personalizes learning. It’s also made everyday tools smarter, though it raises concerns about privacy and job automation. Blockchains help build trust by securing transactions and creating transparent systems, but it has its own challenges, like scalability and environmental concerns. Together, these technologies are reshaping how we live and connect globally.

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

I feel that, as of now, I have achieved all of the course outcomes.

**Part Two:**

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

**Link to Acronym Invaders! on GitHub  
https://github.com/Wayward-One23/Acronym-Invaders/tree/master**

I have effectively designed the additional game mode where the spaceships fall at 1.75 pixels/second, causing the user to be able to pull the acronyms from memory at a faster rate.

**Software design and engineering**

I have effectively designed the additional game mode where the spaceships fall at 1.75 pixels/second, causing the user to be able to pull the acronyms from memory at a faster rate.

**Algorithms and data structures**

**Databases**

Secondly, I have created a database for the program. Now, after every game is completed, the program will call for the user’s name. Once the user enters their name and presses enter, a database will appear on the left side of the screen with the top ten highest scores that have been reached. On the right, the program will ask the user if they would like to play again. If they type Y, the program will revert to the main menu so the user can choose their play mode. If N is typed, the program will automatically close.

Status Checkpoints for All Categories

|  |  |  |  |
| --- | --- | --- | --- |
| Checkpoint | Software Design and Engineering | Algorithms and Data Structures | Databases |
| Name of Artifact Used | Artifact Invaders! Origin: Personally developed | Artifact Invaders! Origin: Personally developed | Artifact Invaders! Origin: Personally developed |
| Status of Initial Enhancement | Enhancements completed | Working on enhancement | Working on enhancement |
| Submission Status | Submitted | Submitted | Submitted |
| Status of Final Enhancement | Submitted | Submitted | Submitted |
| Uploaded to ePortfolio | Submitted | Submitted | Submitted |
| Status of Finalized ePortfolio | Submitted | Submitted | Submitted |

**References**World Economic Forum. (n.d.). How AI and blockchain are reshaping industries. Retrieved December 9, 2024, from https://www.weforum.org

Bhumichai, D., Smiliotopoulos, C., Benton, R., Kambourakis, G., & Damopoulos, D. (2024). The convergence of artificial intelligence and blockchain: The state of play and the road ahead. MDPI. Retrieved December 9, 2024, from https://www.mdpi.com