John Bryson

CS 499

6-1 Journal

Two major disruptive technologies that are shaping the future of computer science are Artificial Intelligence (AI) and Quantum Computing.

Artificial Intelligence uses machines and software to simulate human intelligence. It is being used in many fields like healthcare, transportation, and customer service. AI impacts computer science by changing how we write programs, make decisions, and build systems that can learn and improve on their own. For my career, AI has created many new paths. As a software engineer, I can now build smarter systems that adapt to user needs, help detect fraud and even assist in cybersecurity. AI makes technology more personal and helpful for people and communities. It also raises questions about ethics, privacy, and fairness that developers must keep in mind.

Quantum Computing is another game-changing technology. It uses the laws of quantum physics to process information in completely new ways. While classical computers use bits, quantum computers use qubits, which can perform many calculations at once. Quantum computing can solve problems much faster than current systems, especially in areas like cryptography, drug discovery, and financial modeling. This technology will reshape how we think about data security and large-scale computation. It can lead to global breakthroughs but also comes with challenges, such as the need to rebuild current systems and train people to use them.

These two technologies will change how we live and work. They bring both great opportunity and responsibility. So far, I have achieved several course outcomes. I have shown my ability to use computing techniques, develop software, apply algorithmic thinking, and work with databases. I still want to improve in areas like large-scale collaboration and integrating feedback into final product designs.

Checkpoint	Software Design and Engineering	Algorithms and Data Structures	Databases
Name of Artifact Used	Travlr App from Web App Development (CS465)	Inventory App from Mobile Architecture (CS360)	Animal Shelter App from Client/Server Development (CS340)
Status of Initial Enhancement	Refactored layout, updated CSS styling, improved UI/UX	Updated logic for sorting and data structure use	Rebuilt CRUD features and adapted to local environment
Submission Status	Submitted and instructor feedback received	Submitted and instructor feedback received	Submitted and instructor feedback received
Status of Final Enhancement	Final improvements made with focus on maintainability	Final changes completed with comments and code clarity	Documentation and code structure finalized
Uploaded to ePortfolio	Yes	Yes	Yes
Status of Finalized ePortfolio	Added to ePortfolio	Added to ePortfolio	**Final draft completed**