## Part One: Emerging Technology Reflections

1. What is the identification and description of each technology?

The first technology is Generative AI, including tools like ChatGPT and GitHub Copilot. These tools use large language models to create human-like text, code, and images. The second is Quantum Computing, which uses quantum bits (qubits) to solve complex problems faster than regular computers, especially in cryptography, simulations, and optimization.

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

Generative AI helps developers by giving quick code suggestions, writing documentation, and spotting bugs, saving time. Quantum computing might not be common yet, but learning about it now could be useful when the field grows and opens new job opportunities.

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

Generative AI can make learning and working easier and faster for many people. But it can also spread false info or replace some jobs. Quantum computing could help in areas like medicine and energy but may also break today’s security systems, which could cause major changes.

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

I’ve completed outcomes related to building software, working with algorithms, and using databases. What’s left is improving how I explain and present my work and wrapping up my final documentation.

## Part Two: Status Checkpoints for All Categories

| Checkpoint | Software Design and Engineering | Algorithms and Data Structures | Databases |
| --- | --- | --- | --- |
| Name of Artifact Used | Sentiment Analysis Web App | ML Classifier and Tokenizer Code | SQLAlchemy DB Integration |
| Status of Initial Enhancement | Retrained model and connected to frontend | Improved text vectorizing and model use | Created models and added sample data |
| Submission Status | Submitted | Submitted | Submitted |
| Status of Final Enhancement | UI tweaks and model update nearly done | Small text logic changes left | Done, might add filter/search features |
| Uploaded to ePortfolio | Yes | Yes | Yes |
| Status of Finalized ePortfolio | Reflection draft started | Docs cleanup in progress | Summary and screenshots in progress |