Part One

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

Two disruptive technologies that have significantly impacted various industries are IoT (Internet of Things) and 3D printing. In the past, we were mostly connected to the internet through our phones or personal computers. However, today, almost every device is connected, offering more advanced features and capabilities. The Internet of Things (IoT) is a network of physical devices, vehicles, appliances, and other objects embedded with sensors, software, and technologies that allow them to connect and exchange data over the internet. These "smart" devices can communicate with each other, gather information from their surroundings, and perform tasks with minimal human intervention. On the other hand, 3D printing is gaining more traction and is being utilized in various sectors, such as fashion, art, construction, and automotive industries. It’s a process of creating three-dimensional objects from a digital file, with materials like plastic or resin, using CAD (Computer-Aided Design) or scanning real-world objects to produce designs layer by layer.

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

In terms of careers, both IoT and 3D printing open up opportunities and create a demand for specialized knowledge. For IoT, expertise in embedded systems is highly beneficial, as many IoT devices rely on these systems for their functionality. Additionally, an understanding of product design, such as the development and functionality of smartwatches or smart fridges, can be crucial. On the other hand, while programming skills are not strictly necessary for 3D printing, having a solid understanding of programming is beneficial, especially when working with 3D modeling software or developing applications for customized printing. Expertise in materials science, CAD, and simulation technologies will also be useful in the field of 3D printing. Both fields require a combination of technical expertise and creativity, making them exciting career paths for someone with a computer science degree.

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

For humans and societies, the impact of IoT and 3D printing will likely be positive, improving convenience, efficiency, and being highly useful in important sectors like healthcare. The Internet of Things will help individuals make smarter, data-driven choices in their daily lives. For instance, wearable devices like fitness trackers can monitor health data in real time, encouraging healthier habits. Similarly, smart cars can improve city traffic by optimizing traffic flow and reducing congestion. On the other hand, while 3D printing may not be widely adopted by consumers due to cost, it holds great promise for industries. It can be used to make essential items like prosthetics and medical devices more affordable and accessible, benefiting communities globally. Or help create light weight and sturdy materials for Aerospace Engineering

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

As of right now I have completed all of my enhancements, my app works as intended without any bugs. Now, I mostly need to prepare my portfolio and clean up some of my code and proper comments.

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Part Two:

**Status Checkpoints for All Categories**

|  |  |  |  |
| --- | --- | --- | --- |
| Checkpoint | Software Design  And Engineering | Algorithm And  Data Structures | Database |
| Name of Artifact Used | **Event Tracker** | **Event Tracker** | **Event Tracker** |
| Status of Initial Enhancements | **Completed** - Change Code from Java to Kotlin on the log in file | **Completed** – Create a sorting algorithm for users to sort events based on dates. | **Completed** – Start changing database from SQLite to Firebase. |
| Status Of Final Enhancement | **Completed** - Change Code from Java to Kotlin on the entire codebase. | **Completed** – Allow users to sort events based on most recent, least recent, and date added. | **Completed** – Make sure each file is compatible with the new database. |
| Uploaded to E Portfolio | **Completed** – Files added to GitHub | **Completed** – Files added to GitHub | **Completed** – Files uploaded to GitHub |
| Status of Finalized E Portfolio | **In Progress** | **In Progress** | **In Progress** |