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5-1 Journal: Computer Science Trends and Artifact Update

The Computer Science space is known for its continuous evolution. Throughout the last 4 decades, computer science has evolved from a niche industry into the backbone of modern society. Two recent trends that I found in my research, Artificial Intelligence (AI) and Virtual Reality (VR), hope to continue pushing the boundary of what computers are capable of.

Artificial intelligence or AI, is the process of developing algorithms and programs to accomplish tasks with minimal user input, typically involving the use of previous data to generate new data. This is typically done by feeding data from an existing data source into a software model. The model takes a series of data as an input, and generates an output that it expects will generate similar data. The developer can score these outputs, and higher scoring data is used to further generate new data. This process is known as training. Trained AI models can produce incredible results, and many companies are using these models as the foundation of their business. As a hopeful for a development position in a Big Tech company, I’ll have to be familiar with concepts in AI, as all Big Tech companies are currently working on leveraging AI to make their products better.

The second trend I researched is Virtual Reality, or VR. VR aims to create digital worlds, in which people can digitally perform tasks. A large section of this space is dedicated to gaming, where characters can be controlled through controllers which can generate more realistic inputs. This adds a new level of immersion to gaming, where players wear a variety of controllers and glasses to get a better experience in a game world. Knowledge of VR will be important to my journey as a software developer, as companies like Meta are using VR to create new experiences for their users.

**Part Two**

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

* Software design/engineering – Phase 4
  + Built out functions for generating records and CRUD functionality to Database Tables
  + Still working on implementing more functions for the classes to work together (Add Appts to Contacts, Tasks to Appts, etc.)
* Algorithms and data structure – Phase 3
  + Changed record structure from objects to JSON records
* Databases
  + Database is up and running, and MongoDB is showing JSON records populate as they are created.