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Professor Annexstein

Senior Design 1

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Assignment #3

From an academic perspective, my team’s senior design project is focusing on web development, database management, and information retrieval. This is evident when describing our project, which is focused on the creation of a “to-be-read booklist” generator. Our project will be web-based, with the user being able to interact with our generator through some web interface. This generator takes in specific book criteria from the user, such as genre(s), length, reviews, etc. Using this information, a semi-random list of books is retrieved based on and/or sorted by the criteria selected by the user. The books will be stored in a database created by scraping online resources, such as using API for services such as Goodreads.

To help create this project, the experience I have obtained throughout my education at UC will be extremely relevant. One specific area of my learning that will come into play will be the computer science courses I have taken as part of my curriculum. One recent example that comes to mind is my Information Retrieval course (CS 5154), which is an elective I am currently taking. Since this course focuses on, as the name suggests, the retrieval of specific information based on user inputs, I expect what I learn in this course to be an invaluable resource for our project. Another course that comes to mind as relevant was the mandatory Database Design and Development (CS 4092) course. While a few years have passed since that class, the information provided by the course will be invaluable for creating and managing a database of the size we will need for our project. In addition to these specific classes, the variety of programming languages we have learned throughout the many courses we have taken are likely to be relevant as well.

Aside from these courses, my co-op experience is likely to be relevant for the development of our senior design project. For example, my first co-op was a research co-op facilitated through UC, where I primarily worked on machine learning and creating presentations for our team. While the direct, hard skills I learned during this co-op may not be particularly important for our project, this co-op was necessary for me to learn how to work independently and to communicate my ideas through visuals and spoken communication. Another co-op experience that will have some relevance for our project was my position as a private instructor for iD Tech. Similarly to my research co-op, this project helped tremendously with my communication skills, as I needed to be able to communicate my ideas to people with varying amounts of computer science experience. In addition, I needed to be able to learn a variety of languages and tools fairly quickly, which is a skill that will almost certainly be necessary when working on this project.

I have several motivations for working on this project, both academic and personal. First, this will be a good opportunity to use what I have learned over my time studying at UC, and this project allows me to utilize a variety of my computer science-related skills rather than just one or two. In addition to the skills I already know, this will also be a good opportunity to learn and practice more in areas I do not have as much knowledge. For example, I have not done much web development in the past, so this will be a good opportunity for me to learn more about creating function front- and back-end code for a website. In addition to these academic reasons, I am also looking forward to working with one of my friends. COVID-19 has made it significantly harder to do anything social for nearly two years. This will be one of the first opportunities I have to work with a friend in almost as long as the pandemic, and I feel that it will be a worthwhile experience to work collaboratively on something after so long.

Thankfully, as this project is fairly straightforward, gauging our progress and completion should be a fairly standard affair. In terms of creating a functioning solution, the hard part has already been done; we have segmented our project into necessary roles, and the broad goals of each role have already been defined. We only need to design the connections between these areas of our projects and the order in which they will be completed. By the end of our project, gauging our success will be fairly straightforward as well. Since we already know what the project should have and what it needs to do, we can simply compare our end product to the expectations we have already defined. As we have already split our roles, gauging self-contribution should be fairly easy as well, since the areas each member must focus on can also be used to see how much of our role we have completed. As long as we each contribute to our roles sufficiently, and the basic goals of the project are met, I believe that we can be happy with the results.