Individual Capstone Assessment

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My senior design project to me is about combining what I have learned throughout my five years of studies and four co-op experiences with my passions outside of computer science. I am viewing this project as an experiential way of being able to do what I love with the help of what I have learned. Throughout the past five years, I have discovered that I want to focus on user experience, that database management interests me, and that project management seems to be a role well suited for me. With this project, I will have the ability to practice the skills I have already obtained, along with gaining more personal experience in these roles. My senior design project, titled PetInsights, will be an application that bridges the gap between animal shelters and people looking to adopt. I strive to create a seamless experience for both audiences and provide creative features that will be beneficial to the needs of the users.

My Software Engineering (EECE 3093C) course with Nan Niu will be very useful for this project as I learned concepts related to creating a multi-page application. I also learned techniques of knowing how to pass data through such an application, which I believe will be necessary to use in this project. Finally, I learned about the importance of refactoring, and due to this I intend on making code refactoring one of the key steps in our project development. Concepts learned in Data Structures (CS 2028C) will undoubtedly be applied in this project, since it was in this course where I learned about different ways of grouping data. It will be my job to decide which type of data-grouping will be most efficient for several aspects of this project. As for this semester, I am taking User Interaction (CS 5167) and Website Management (IT 1040C) and am hoping that the contents I learn from these courses will aid me in my creation of this application-based project. With the UI course, I have already learned about the importance of user experience and to make sure that your project is well organized in a way that does not confuse or upset users.

PetInsights will require some database management skills, and fortunately I worked closely with a database at my second co-op with Worldpay where I interned as a software developer. During that role, I had to design and create database tables that held relationships with others. I also had to make frequent query calls to various tables to find and utilize the information I needed. This will help give me a nice head-start on how to organize the data involved in this project. General project management abilities will also be incredibly important for this project, and I have spent my last two co-ops acting as a project manager for my own projects within those companies. My first experience was with Microsoft, where I interned as a software developer and project manager and worked on the same project alongside two other interns. My second experience was at Daimler Mitsubishi FUSO where I did some data analyzing but became manager of my own project. I learned a lot about the proper steps to take while first starting a project along with how to verify that the schedule planned is still being maintained.

If I did not go into Computer Science at UC, I would have gone for a veterinarian degree since I love animals and I love doing what I can to help them. Since I am pursuing Computer Science instead, I figured using my skills in this degree to help animals is a great way to include one of my other passions. I am excited about bridging my two worlds together with this project! As for preliminary approaches to designing a solution, I used to volunteer at various animal shelters and foster animal programs, so I am relatively familiar with the issues that animal shelters face regarding exposure, returned animals, and resources. I have also researched other apps and websites that create a virtual animal-adoption experience, so along with my own ideas, I have decided to include useful aspects of these applications into this project. I hope to create an application that will combat the issues mentioned above and that will successfully bridge the gap between animal shelters and people who are looking to adopt. I want both parties to benefit from this app!

In terms of self-evaluation, during the planning stages I intend to create a list of features and goals, and as I near the completion of the project, I can check if I have implemented those features and if those goals have been reached. My project has a quite a large scope, and I am aware that I might not accomplish every single feature that I would like to include in it by the end of the senior design course. Therefore, during the planning stages, I will break up the project into various stages and set out to complete stages 1-3 for example, while having everything prepared for stages 4. I would like to continue working on this after graduation, so I do not think I will ever consider myself “done” with this project. As for if I have done a good job or not, I plan to get frequent feedback throughout the development process, and as long as the users say they are happy with the application and intend to use it again in the future, I will then say that I have done a good job.