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Senior Design I

Capstone Assessment

Our senior design project that our group has come up with is called GigSeek. GigSeek is a web application that we want to develop that allows venues and music performers to plan live events. This application will allow these venues to post themselves on this application, along with their availability for certain dates that these venues are open. Then, bands or live performers are able to book these venues for certain dates with the entire booking process being done on GigSeek. This is more focused on smaller venues and artists but has the potential to grow from there. This application is basically an easier and more streamlined way for bands and artists to communicate directly with venues instead of having to go through Instagram, for example, to plan out their tours.

For this specific project, one class that will come in handy is Python Programming (CS2021) because our plan is to use python for some of the database design and back-end development. I do not have a whole lot of experience in python, but I am going to use this opportunity to learn more about it due to the resiliency of the language and the fact that python is used in many, many applications. Our team member, Ilias, has a good amount of experience with python, so he will be very helpful throughout this process. Another class that will be helpful with this project is User Interface I (CS6067) because we will also have to design a user interface for this application that is not only easy to use, but also appealing and useful for both the venues that host and for the artists that book these events. Our senior design advisor is also our professor for this class, so I believe that she will be able to help us when we have questions about the user interface that we are designing. One more class that I will believe to help

is Operating Systems and Systems Programming (EECE4029) because our plan is to hopefully one day get this application to work on multiple operating systems such as iOS.

The one co-op position that I worked that is relevant to this senior design was when I was working as a software developer intern at Siemens Digital Industries Software. During my two co-op rotations there, I worked quite a bit with JavaScript, where I was writing unit tests for our Classification code base. The team that I worked for at Siemens was the Classification team, so I was responsible for writing said unit tests for our code, which gave me a lot of exposure to working with JavaScript and seeing how it was applied. We plan on using JavaScript for a lot of our front-end development, so I believe that this experience will come in handy. I also have a lot of experience with Node.js due to the fact that it was my responsibility to update Node.js for our company whenever new vulnerabilities came up. I know that front-end development uses Node.js, especially if JavaScript will be used along with the fact that Node.js can be used with user interfaces, so I believe the experience I got here at Siemens will be very useful for this senior design project.

I am motivated and excited to participate in this project because I get the chance to apply what I have learned at my co-op and in my classes and create something that can be useful for future users. I've never really been a part of a project like this before and I believe that our idea could be an application that actual artists and venues can use to plan events. There is not an application that does this directly, and this is an opportunity to create an application that provides a quality-of-life solution for this. Ilias helps schedule smaller bands with venues through Instagram direct messaging, and he says that it can be very difficult to do so. This application will provide a much more organized way for these artists and bands to schedule their tours, and I'm excited to provide a potential solution for that. Our

preliminary approach is to come up with a user interface that we like and then design our code and our functionalities around that, so that we have an idea of what we want to work towards. We will have the option to choose whether you are a venue or a band/artist, and then from there each have your own interaction so that venues can post themselves on this application and keep their updated availability on the app while bands can choose what size venue they are looking for and then see the available venues and the dates in which the selected venue is available to host.

From there, the artists and the venues will also be able to communicate through this application, so that it is in an organized manner, and everything can be done through the application, from booking to communication. We plan on having a meeting with our advisor every week and we will also discuss what we have gotten done and document everything that we do, so that we are each accountable for each of our work and can hold each other accountable if one of us is not putting in the necessary work that needs to be done. We will know we are done and have done a good job when we have some sort of application designed; our goal is to hopefully get some sort of implementation or prototype of this app so that we can test the application that we put all of this work into. We want to hopefully one day launch this app, whether that is feasible by the time we take both senior design classes or not. We think that this is a good idea and could be applicable in the real world, so if we can get this application launched, that is the ultimate goal, whether we finish that after school or during our classes.