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CS5001 Senior Design

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Individual Capstone Assessment

The project I am a part of is the creation of a website/application that will allow users to play in 'pick 'em' tournaments for different kinds of sports/events. We intend to add modularity for there to be many options for users when setting up their own tournaments, allowing mixing of different kinds of sports into a single tournament for the participants. The options we intend to grant the user will prove to be a challenge, allowing us a challenging and engaging experience for our project. The scope of our project includes front-end development, back-end development, and database capabilities, which will give our group plenty to do and a wide variety of tasks to dedicate ourselves to without getting burnt out on a single item. I have experience with front-end and back-end development personally, so that will be what I will focus my attention on during the project, but I will also familiarize myself with how our database is set up so that I can hopefully learn in the process, too. I hope to both hone the skills that I have over the course of the project, while also hopefully developing some new techniques and learning some new things. I view the project as an opportunity to learn, grow, and show what I have learned over the past 4 years, and I am looking forward to getting started.

The courses I have taken up until this point have given me a solid foundation with which I am able to code and understand computer science concepts. Courses like Python Programming (CS2023), Programming Languages (CS3003), Operating Systems (EECE 4029), and Database

Design and Development (CS4092) have contributed basic knowledge which I was able to take into my co-ops and expand upon further in both professional and academic settings, among many others that I have not listed. I have learned the basics of database management, python, C++, data structures, discrete structures, and many more things during my class semesters, and they have all been useful in different scenarios, whether it was for work or other classes down the line. One of the most helpful classes was Software Engineering, which delved into the actual processes that go into development aside from the coding itself. The class introduced us to different project management techniques and software that are used commonly in the industry, which, in my experience, was very accurate and handy to know, since I was already a little familiar with how things worked at my co-ops. The classes, materials, professors, and skills that I have gained during these semesters have been very crucial to getting me where I am now.

I have had co-ops at two different companies during my five rotations: Medpace (Software Development Intern) and LCS (QA Co-op and Software Development Co-op). I had one semester of QA, and the rest have all been development-focused roles. During these experiences, I learned the importance of communication with your team, since everything runs more smoothly when all parties are informed as to what is going on. In addition, people are more willing and able to help when you are open with them about issues you are having. Any time I requested help from a coworker, they were happy to oblige, since I never let anything linger for too long to the point where something was too late. In terms of technology at these positions, I primarily coded with angular on web applications at both companies, although I did do some maintenance on a legacy .NET application when the need arose. I also spent a little bit of time working with the database, but nothing too in-depth. The things I have learned from

these experiences have been helpful in many ways, because they often reinforce what I learn in class by allowing me to put it into practice.

I am looking forward to this project because I think we have come up with an interesting concept which we are all interested in creating, and I think it will be fun to use it once it is finished. Because I will be working on the frontend, I will utilize some of the skills and techniques I learned in User Interface (CS 5167), which taught me about interactive UI elements and how to design things in a user-friendly manner. I will plan out the designs in advance and iterate them with the team, as well as getting an outsider perspective. Once we have a cohesive concept in mind for how we want the website to be designed, then implementing it will be its own task, but because much of my background thus far is in web development, it shouldn't be anything that I can't handle. In terms of getting the backend developed, I may help with this since I also have some experience in this field, but certainly less so than on the frontend. Our team will need to work together and communicate our goals so that not only will everyone get a meaningful experience out of this project, but also so that everything works together on a technical level.

I expect we will be happy with our project once it is finished. The goal that we seem to be anticipating will not be easy to achieve, so, if we reach it, it will be something for us to be proud of. As we go, I will be making sure that I am achieving what I wish to achieve, and that I am contributing meaningfully to the project. As long as everybody is doing their best to achieve the goals that we are sharing with regards to the project, I will be happy with the outcome of the project, and I assume they will be, as well. We will set goals and have check-in meetings on a regular basis, so there is little chance that any of us will be lacking in their contributions enough

to hurt the project overall. I am looking forward to the project and I think it will be a good learning experience, as well as a lot of fun.