

Kevin Nguyen

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### Individual Capstone Assessment

The senior capstone is about being able to apply and the knowledge and skills I have learned over the 5 years here at UC. With the senior design project, I can apply both what I learned in the classroom and from my co-op experience as well. It is an opportunity to research real world problems that I am interested in solving and design solutions to these problems. The senior capstone is also a way to collaborate with others in a team setting and is a chance for the team to gain more experience in project management. Project management is not a skill that is expanded upon throughout the CS curriculum and the only other experience I have had with it is with the ENED robot project in my early years, so I am grateful to have an opportunity to gain more experience. Overall, the senior capstone is a way for me to make a meaningful contribution to the community and evaluate myself on the technical and non-technical skills I have learned through my academic career.

I took classes such as CS2028 Data Structures and CS3003 Programming Languages that helped me develop my critical thinking skills. With the assortment of assignments that came from these courses I was required to be able to think critically. These classes also helped me develop my programming skills as well as CS2021 Python Programming. The Python Programming class was useful to me as it gave me a basic understanding of how to code in Python which will be useful for the project because we will most likely be using Python to develop the backend of our web application. Another class that will be useful in this senior

design project will be CS4092 Database Design. Database Design taught me a lot about database design and how to use the basics of SQL. I used this information during my co-op quite often and it was very valuable information that can be used with our student event organization app when keeping track of things such as membership data.

For all my co-op rotations I worked at London Computer Systems. On my first co-op term there I worked as a Quality Assurance Tester Intern. With this experience I learned a lot about software testing and gained valuable documentation and communication skills that I continued to use throughout my 4 other terms at the company. For the rest of my time at the company I worked as a Software Developer Intern. As a developer I worked mostly on the front end of the company's applications. I learned how to use the Angular and ASP.NET frameworks to create web applications. I also learned how to use the Ionic framework to develop cross platform applications as well. I expect to be able to apply my development skills when developing the front end for my team's web application and will be able to use the documentation/communication skills I developed throughout the design process of our project.

My main motivation for this senior design project is to be able to create something beneficial to the community. The motivation to develop the event organization application for student organizations came from my personal experience along with my team's personal experience on student organization executive boards here at UC. I, and my team, agreed that the current system with UC's Campus Link was not efficient and wanted to work on a solution to streamline it. From my experience on an organization's executive board, we used Google Forms/Sheets/Drive mostly to keep all our financial, membership and event info which I found hard to navigate. I want to be able to create an app for executive boards that can group all this information together better than the above options and have friendly user-interface as well. I am

excited to work on this project idea because I believe it will help the student organizations at UC greatly.

To design a solution, I would want to first conduct research. I would like to collect information about similar applications and the features that existing applications incorporate well and do not incorporate well. I would also like to collect user data by creating surveys or asking existing student organizations what they would like to see in a student event organization application. The primary expected result is to have a fully functional event organization app that has been tailored to have the needs of student organizations. I want it to be bug free without any critical issues and I want it to be a more efficient way for executive board members to manage all their org information. For self-evaluation of my contributions, I would want to acquire feedback from my peers and faculty advisors. Ultimately, I will know when the project is finished and successful if the application can be adopted within UC's student organizations and improve quality of life.