My senior design project is focused on the creation of an event organization application for university student groups organizations and non-governmental organizations (NGOs), while we are still yet deciding the scope of the project our concentration aligns with these organizations as of now. Student and NGO-led events are critical in developing community participation, social change, and personal development in today's fast-paced and interconnected world. However, as an academic, I've seen firsthand the difficulties these organizations confront in efficiently planning, advertising, and administering their events. The goal of this project is to address these challenges by developing a user-friendly digital platform for event coordination, registration, promotion, and communication. From an individual academic perspective this initiative provides an interesting chance for me to use my knowledge in software development, user experience design, database and project management to a real-world problem. It also connects with the educational objective of providing organizations and non-governmental organizations (NGOs) with the tools they need to succeed, which is a cause I am passionate about. Finally, this project represents a valuable convergence of technology and social impact, making it an appropriate capstone project that I am interested on working toward.

My college experiences have provided me with a solid foundation of knowledge and skills that will help guide the development of my project, which focuses on developing an event organization app for college student organizations and non-governmental organizations (NGOs). Several significant classes that I took during my academic career have prepared me for this attempt. Engineering Design 1 and 2 (ENED 1100 and ENED 1120) have ingrained in me an organized approach to problem-solving and project management, both of which are necessary for

the development process. Python Programming (CS 2021) and Data Structures (CS 2028) have sharpened my programming skills and data management comprehension, both of which are critical in developing a solid application. Furthermore, courses like Software Engineering (EECE 3093C), Programming Languages (CS 3003), and Database Design (CS 4092) have provided me with invaluable insights into software development methodologies, code organization, and database management, all of which are directly applicable to the development of an efficient event organization app. Finally, the Data Structures and Algorithms (CS 4071) course has honed my problem-solving skills, allowing me to optimize the app's functionality, making it more efficient and reliable. To summarize, these courses form the academic foundation for the effective development of my project, guaranteeing that it fulfills the different needs of college student groups and NGOs as what is described as the scope of the project.

Moving on, my college experiences, including co-op and coursework, have provided me with a diverse set of technical and non-technical skills that I intend to apply to the development of my project. I obtained essential technical skills in data analysis, SQL, and Python during my co-op as a Data Analyst at The Delta Airlines Headquarters. Analyzing flight data and producing insights into aircraft delays and driver compliance gave me a solid foundation in data analysis programming and testing of code frameworks. Working on recruitment, onboarding, and retention projects with the Operations Analytics Strategic Programs (OASP) Team also improved my ability to interact successfully and understand the operational needs of a huge organization giving me exposure to the business side of things and helping me in improving my project management abilities and making me a reliable partner for finishing a given task as well as exhibiting proper communication skills. My co-op technical and teamwork abilities will be

useful in building and executing the app's data analytics and collaborative features. Furthermore, my studies and certifications, like as gaining the IBM Data Science Practitioner badge and an Industry recognized accreditation in IQ4 Threat Within Apprenticeship, have improved my data analysis and problem-solving skills along with giving me the exposure to the IT side of things. These abilities will be immediately applicable to developing data-driven features in the app that will help organizations to make educated decisions about their events. Furthermore, my knowledge of programming languages such as SQL, Python, and C++ will allow me to efficiently create the app's functions. As a result, I believe that my technical skills and certifications, combined with my co-op experiences in both data analysis and project collaboration, will be critical to the successful development of the event organization app.

I am highly motivated and excited to participate in this project because it combines my passion for technology with my desire to contribute to the betterment of student organizations and NGOs. Having experienced the challenges these groups face in organizing events during my college journey, I am driven to create a solution that simplifies their processes and enhances their ability to create meaningful experiences for their members and communities. The prospect of designing an event organization app that streamlines event coordination, provides data-driven insights, and fosters collaboration among organizations is both personally fulfilling and aligned with my academic and career aspirations. I am excited to leverage my technical skills, co-op experiences, and coursework to make a tangible impact on these organizations and their stakeholders. I am also ready to learn and adapt along the way as needed to and be flexible and approachable to any change during the project when it comes to enhancing my skills.

In approaching this project, my preliminary strategy involves conducting thorough research and needs assessments to ensure the app's features align with the specific requirements and pain points of college student organizations and NGOs. I plan to develop a user-friendly interface and include data analytics capabilities to enable informed decision-making. By using my technical skills, such as SQL, Python, and data visualization tools, I aim to create a robust and scalable solution. My expected results and accomplishments include delivering a functional event organization app that enhances efficiency, collaboration, and decision-making for these organizations, by establishing features that are user friendly to my stakeholders and easy to use templates after we decide on the scope of the project. To self-evaluate my contributions, I will establish clear project milestones and success criteria, such as the successful deployment of the app, positive feedback from user testing, and measurable improvements in event planning and management efficiency. Regularly soliciting input from end-users and stakeholders will also be essential in gauging the app's effectiveness and iterating on it as necessary to ensure it meets the needs of its target audience. Ultimately, my success will be determined by the extent to which the app simplifies event organization and enhances the experiences of college student organizations and NGOs.