Zak Nilsen

May 13th, 2022

Dr. Jason Sawin

<center>My Time at St. Thomas</center>

Throughout my time at St. Thomas, the university's values, and the idea of the common good have become part of who I am as not only a student, but as a member of my community, family, and more. What I was able to learn and accomplish at the University of St. Thomas through my professors, classes, and fellow students, not only made me a better person, but gave me an opportunity to apply what I had learned to the common good. The mission values of the university I think are important attributes that every community should have, such as the pursuit of truth, diversity, and dignity. It is the duty of each member of a community to uphold values such as these, as these are inalienable rights that everyone should pursue for the common good. Some of the works I have included in my portfolio are some of the most influential projects I have worked on at my time at the university. They challenged me in unique ways, and in other ways were significant to me developing as a student where I was able to apply the core beliefs of the university that have been so influential to who I have become.

The St. Paul Crime Database server was one of the most memorable projects I did during my time as an undergraduate Computer Science student. This project challenged me like no other before, in terms of the difficulty of the assignment, but also working together with a group. The idea of this project was to try and pull from our previous projects API which would interact with the crime database of St. Paul and grab the data needed. This was then incorporated with an interactive map of St. Paul where the user could enter specific locations, zoom, or pan wherever on the map and the database would load based on that view and give specific details such as

number of crimes in that area. As a student this assignment was very challenging and time consuming, even with a team of people working together. This was also one of my first projects working with a team, so that came with its own challenges as well, as sometimes we would all go off on our own trying to solve problems, but in the end, we would just create more problems for each other. Throughout this process we finally found a way to work together as team to maximize our efficiency and to not create unnecessary problems for each other, which may have been one of the biggest challenges we encountered during this project. By supporting each other as members of the team we were able to further increase our productivity and tackle the difficulties of this project together.

This project taught me the importance of being able to rely on your partner or teammates, or even more be an active member of that team or community. The University of St. Thomas's values and mission strive to create an environment where there is a caring culture that supports the well-being of each member. By doing this they are able to push forward the common good for the community and benefit everyone collectively. This project taught me how to persevere and how to think more rigorously, while valuing the unique contributions that each team member was able to bring. I also found this project very fascinating in terms of how it worked and its features. Through making this project I was able to appreciate more about its distinct qualities as a project but appreciate the data that was portrayed as well. The concept of a crime database API could be very useful to city officials and the people in addressing crime in St. Paul and could help create a safer environment for everybody in our community. Though with access to data such as this it is important that diversity, equality, and the pursuit of justice are pursued for the good of the people in the community, as this is the goal that we all ultimately strive for as members of said communities.

One of my next projects was the *Pipeline Simulator* which undoubtedly was the most challenging assignment and project I worked on as an undergraduate student. This project's objective was to increase throughput of our classes' custom assembly code simulator. This was done by using pipelines to section off individual tasks so that multiple instructions could be done per cycle rather than an instruction per cycle. On this project I worked with a partner, which again comes with its own challenges, as at times one of us would work on something individually and this caused the other partner to lose out on the understanding of that part of the assignment. This again is why it was important that we worked together as a team, so we could each understand and learn how the pipeline worked while dealing with the challenges the assignment brought. Me and my partner met nearly every day 4 hours a day for 2 weeks to try and finish this project due to its complexity. This was one of the first times I thought I would not be able to complete a project, and if that was the case that would have resulted in my grade being dangerously low, so it was a very high stress situation. This taught me to persevere despite the odds of the situation, and this taught me how to deal with stress better, as in our field of work there are many situations where there are tight deadlines for complicated projects like this.

This project helped me deal a lot better with stressful situations like this, as there were many walls me and my partner hit where we could not figure out where to go next in terms of our project. Each time you hit one of those walls it was demoralizing, as the more you sat there stuck the closer the deadline would get. I can look back on this project fondly because I can sit here knowing that I was able to finish the project, but initially when I was working on this, I was not very optimistic about being able to complete the assignment. The reason why I was able to keep pushing on is because I knew that if we failed this it was not just me who would go down but also my partner who had also been working very hard on this project. That idea of teamwork

commitment and camaraderie with my partner is what helped me push through the project and dedicate many hours to see it through to the end. That is what I think is important about being a member of the community and team, is that you always have someone to back you up and be there when you need them and vice versa. From this I was able to learn more about being able to commit to a team or community and how you will have support when it is needed.

Another project that I thought was important to my development at St. Thomas was from my global Christianity class. This class taught me to appreciate cultural differences and to try and diversify my understanding of other cultures. Going into this class I thought I knew lots about other cultures and how they worked, but in the end what I knew was a small smidgeon of the diversity and uniqueness of cultures across the world. That professor had been teaching at St. Thomas for quite some time and I was part of the last class he was teaching at the university. He had a unique view to offer about many things, as you could tell he was quite cultured and a well-traveled person who had many new perspectives and opinions to offer. In his class he tried to get us to break out from our shells and experience new perspectives and new cultures. That is why he had us for our project go visit a Church of a different culture than ours so we could experience something different from what we are used to. Even though we were visiting a Christian church, even within Christianity everyone celebrates their faith a little differently. Through this project and class, Dr. Schlabach taught me the importance of experiencing new cultures and trying to diversify your views and perspectives. For this project I went to a Korean Church nearby to experience the differences in their way of faith and culture. At first I was a little nervous, as I was pretty shy but in the end it was a very fun experience as it was way livelier than a typical American Church, and even though I was not a member of their direct community they were super welcoming and accepting of me attending. It was a very fun experience expanding my

horizon and meeting new people and seeing the similarities and differences in the way they practiced their faith.

Though no more than a couple weeks later the beginning of the COVID-19 pandemic started and that was a drastic change for not only me, but all the world. This shifted the way we were attending our classes now and with this shift came hardships for not only students but professors as well. Learning through a pandemic was a definite challenge, as I feel as though I lost some of my learning experience due to the nature of online classes, but in also just how much harder it was to focus and learn. All the projects mentioned above were affected in some way by the COVID-19 pandemic. This is also another reason why my global Christianity project is so memorable as that was the semester we transitioned from in-person to online classes. Over half of my college experience has been marked with this pandemic, and through it all we faced our own challenges. Even with the pandemic there were still virtual Church services, Churches were offering aid to their communities and much more. Through this project I got to see how different cultures responded to the pandemic and how their faith was tested and how they found new ways to still practice their faith. Even here at St. Thomas people found a way, and that shows the importance of adversity and how quickly St. Thomas offered aid to students and members of the community all for the better of the common good.

Finishing off this reflection, all of these projects have played an important part in me developing as a student and a person here at the University of St. Thomas. Through these projects and all of the time I spent at the university their mission values and core beliefs were instilled in me to always push for the common good. Now that my time as an undergraduate is coming to a close, and the end of the COVID-19 pandemic gets closer and closer I can look back at my time at St. Thomas with appreciation for what I have been able to achieve, what I have

been able to learn and the people I have met. A lot of important things I have learned and will learn is thanks to what I have done at St. Thomas, and everything that I have learned I will give back, as we strive to push for the common good.