Brandon Borowiak

Senior Capstone

Professor Sawin

Final Reflection

The University of St. Thomas' mission statement reads, "St. Thomas educates students to be morally responsible leaders who think critically, act wisely, and work skillfully to advance the common good" (University of St. Thomas). The University of St. Thomas community, as well, is committed to the pursuit of truth, academic excellence, faith and reason, dignity, diversity, personal attention, and finally gratitude. All ideas expressed in the mission statement and convictions are incredibly important to making sure that alumni are able to lead successful and meaningful lives. I feel the three projects that I included in my portfolio ("Hug the Angry Jarvis" game, St. Paul crime map, and NIKE Inc. Financial Statement Analysis and Sustainability Analysis) demonstrate my ability to use these teachings and commitments to make a positive impact on the common good.

"Hug the Angry Jarvis" game was a project during the Fall semester of my sophomore year, and within it I managed to develop skills to think critically, work skillfully. In the computer science discipline, thinking critically is one of the most important skills to have. Much of what is done in the field revolves around problem solving, and can one really be an effective problem solver without the ability to think critically. This project had many different parts to it, and on top of it required many topics that we had recently learned. This means that when I approached this project I had to really use critical thinking and plan out the project before I just in and implement anything. This is generally something that I really struggle with generally because I usually want to immediately start working on the project. This is a skill that I continually work on, but this

project was a good first step into taking my time and thinking critically about the whole project. Along with advancing my ability to think critically, I also managed to demonstrate my capability to work skillfully. I was able to demonstrate many abilities like: dealing with a grid as well as a muli-threaded program. These were concepts to me that were completely foreign to me coming into the class. However, I clearly showed my capacity to learn and work with new topics from this game. Since then, I managed to reuse these skills and techniques in other past projects. Which have led to me succeeding in them as well.

This project also demonstrated my commitments to pursuit of truth, academic excellence and gratitude. The University of St. Thomas details its pursuit of truth conviction as, "We value intellectual inquiry as a lifelong habit, the unfettered and impartial pursuit of truth in all its forms, the integration of knowledge across disciplines, and the imaginative and creative exploration of new ideas" (University of St. Thomas). When I came into Computer Science, I had little to no background in the field. So, everything that was taught to me was a new idea/concept. However, curiosity for information and fierce determination led to me learning so much in a short time about programming. This enabled me to not only complete the project, but also to exceed it because I added extra features that were not required. The extra features that I included was some sort of grading system on the project when you finish the game. That you will receive a better score in the game depending on how quickly you finish the game. Acknowledging my hard work, Professor Sawin granted me top marks on the project.. This point actually demonstrates the second commitment: Academic Excellence, defined as, "We create a culture among faculty, students and staff that recognizes the power of ideas and rewards rigorous thinking" (University of St. Thomas). Professor Sawin definitely created a culture of this in the classroom. If it were not for how he ran the classroom, I would have not gone above and beyond

on the project. He created interesting projects that challenged our knowledge but also hit-home the concepts necessary for us to be successful in our career. Another conviction that was demonstrated by this project, was the conviction of gratitude, which was defined as, "We celebrate the achievements of all members of our community in goals attained and obstacles overcome, and in all things give praise to God" (University of St. Thomas). The main aspect of this was celebrating our fun projects with each of my classmates. This was the last project of the class, and it truly encapsulated all that we had learned. After the project was turned in, I talked to other classmates about their project. Although we did not share each other's grades, we did share what other features we added to the project to make it more enjoyable. In this way, we were able to celebrate the accomplishment of completing the class, but also celebrate all that we had learned and what we could create with this knowledge.

The final project within my Web Development course during the Fall Semester of my senior dealt with designing and implementing a dynamic web server that created a map of St. Paul, MN, and allowed for user interaction to search for crime that occurred in the St. Paul area. We allowed for the user to filter data based on the neighborhood, the type of crime, and others. Much like the "Hug the Angry Jarvis" game, this project also taught me to think critically and act wisely. However, this assignment was working on a team of two other people; because of this, I managed to develop leadership skills along with the ability to act wisely and think critically. In this group project, I took on more of a leadership role. One person in the group was in his final couple weeks of class and was in his "senior slide." Due to this, he was willing to save the project to the very last minute. The other person in the group also had a very similar motivation, so if no one took initiative then this project would have been saved for the last couple days. I, however, did not want this to be the case. So, I took on a more leadership role where I set up

times to meet and discuss the project. As well, I sectioned off the project so that each person had their own responsibilities. Since each person had their own section and I motivated them to work at the same time I was, we managed to have our project almost completely done going into the last couple days before the assignment was due. This taught me: how to recognize each person's skill set and motivation so that the project can be completed in the best and most efficient manner.

When considering the convictions for this project, I feel that this project exemplifies academic excellence and dignity. As much as the last project, I wanted to achieve top marks on the project and I knew that my group members also wanted the same. This is why we were not willing to settle for a project that was just functional. We also created a website that was formatted and styled to look nice and create a positive user experience. Not doing this would have saved us a lot of time; however I feel these efforts were recognized when we presented our project to the class and it was obvious the amount of effort we put in compared to other groups. This all leads up to Professor Marrinan recognizing these efforts by giving us top marks on the project. In terms of the dignity conviction, defined as, "We respect the dignity of each person and value the unique contributions that each brings to the greater mosaic of the university community" (University of St. Thomas). Previously, when talking about myself taking more of a leadership position in the group. I was able to recognize the skill set of each person in my group, and allocate parts of the project to those people. I was able to recognize the unique ability of each member and contributions, so that it can result in a strong final project.

The final project that I feel truly relates to the University of St. Thomas' mission statement would be my financial analysis and sustainability analysis of NIKE Inc in an entry-level accounting course. In terms of thinking critically, one of the main reasons that I took

this class was to recognize how a business kept track of its finances. That way, one day I could potentially design a system that would allow for a business to more easily and more efficiently keep track of its finances. Within this project, we did all the calculations and interactions with the "books" in Microsoft Excel. As powerful and documented this software is to use, I could not help but feel that I could design a system and user experience that would be more efficient. Since this course, I have gained even more skills in Computer Science that makes me even more confident that I would be able to accomplish this goal someday. Another way this project related to the mission statement was its teachings about acting wisely. After doing the calculations with the tax information about NIKE Inc, we also did a sustainability analysis of how this company was impacting the environment and what actions they were taking to minimize these. This taught me many different ways that these companies are impacting the environment that many people would not even consider. Whether it's water pollution and usage through the dyeing of all the clothes that we wear, or where the energy is coming from to produce the products that we use everyday. This research provided me the tools to act more wisely about the products that I purchase as well as the efforts that I can take in my personal life to reduce my own ecological footprint.

For the convictions, this project most effectively taught the conviction of personal attention and academic excellence. Personal attention is defined as, "we foster a caring culture that supports the well-being of each member" (University of St. Thomas).  By learning about how we can reduce our impact on the environment, we are, in turn, learning how to care for everyone in this community and in the world. This is because every single person on this earth is reliant upon the world we stand on to survive. So, we should be taking all of the efforts necessary to reduce the impacts that we are having. That way, we can have a long living and healthy planet

for thousands of years to come. I also felt a sense of academic excellence from this project because I was actually able to obtain a grade of greater than 100% on the project. This is because the professor provided the opportunity for students to present on an earlier date and receive extra credit points in return. This was Professor Gao's way of recognizing the rigorous efforts of the students to get the project done at an earlier time.

Throughout my college career, I had seemingly countless projects that related to the St. Thomas Mission statements. However, I feel that these projects are the strongest at showing off the teachings of the university. I know that all of these teachings and convictions will lead me into a very successful career and life in the future. Where I am able to further the common good and positively impact the lives of many.

Works Cited

University of St. Thomas, "Mission." *Office for Mission – University of St. Thomas - Minnesota*,

24 Mar. 2022, https://www.stthomas.edu/mission/.