

Jonathan Jack Dooley

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Capstone Reflection

My time at the University of St. Thomas has provided me with the fullest and most growth-inducing experience I could have ever hoped for. I have learned so many skills and even more importantly, I have learned and aligned my values to support the common good. In my portfolio assignment in Capstone, I have reflected on 4 assignments that stood out to me. One of these was robotic programming project with a startup company. Two of them were assignments from Computer Science courses. Lastly, I included a project from my German course. I will add some detail to each of these and connect the lessons I learned to my growth as a Tommie, a scholar, a computer scientist, and a human being.

Programming skills for the Misty II robot was an awesome experience for me. I began working with “Useabot”, a startup company building a platform for robotic sales in business-to-business and business-to-consumer markets. I was connected to the startup team at “Useabot” through a UST-sponsored entrepreneur workshop called “gAlpha”. This workshop challenged students to think critically about ways to solve problems in the world. For me, this was about advancing the common good.

I was tasked with trying to develop a skill that the Misty II robot could perform or use to further its abilities. A friend of mine, who was working with “Useabot” too, thought a silly dance to help children engage with the robot would be worth creating. There were a handful of technical challenges associated with the SDK for Misty and using JavaScript for just the second

time ever for me. Using new libraries can be changing and for a programmer, I wasn't used to relying on hardware for testing or results. One thing that made these challenges worth overcoming was knowing that our robot skill might help children in need find better care or at least bring them happiness.

I had learned previously that the Misty II robot is commonly used in hospitals or schools specialized for children with Autism or learning disabilities. Learning this really helped me justify spending my J-term free time learning and developing for this cause. Though Useabot was a startup company made to sell robots, we were on a mission for something more meaningful. We wanted to help Misty do its job as well as it could to support the goal of helping children and patients who could use a hand from a robot friend.

Working with Misty II reminded me of one phrase in the University of St. Thomas's mission statement. It says, "the University of St. Thomas educates students to be morally responsible leaders who think critically, act wisely, and work skillfully to advance the common good." I love that the mission statement includes acting skillfully to advance the common good. To me, this means to use the gifts and tools that I possess to uplift, educate, and spread positivity to others. I hope that the silly dancing robot helps put a smile on someone's face; that would make all the effort worth it.

Next, I will talk a little bit about my computer science courses at the University of St. Thomas. Specifically, I will add some detail to the two projects I mention in my personal portfolio. The first of these was a RESTful server application I made in CISC 375, Web Development. In this project, I worked with a team of two others to make an entire website with

server and client/browser-side code. The technical challenges were frustrating at times, but it was very rewarding to apply what we had learned in the semester of studying web development.

Next, I will connect this project to my growth and to the core values of the University of St. Thomas. In the project, we take public crime data from St. Paul, MN and send it through our code to format it in a user-friendly interface. Users can select various neighborhoods of St. Paul and see recent crimes and their relative location, type, and more. At the end, we were challenged to think critically and dig into the surprising facts that we were able to find using our site and the crime data. I was surprised to see crime rates be significantly higher in the summer than the winter in St. Paul. After some research and careful thinking, I decided that the reason for this might have something to do with the days being 'longer' and people socializing more in the Summer. Being challenged to think critically and use the project which I skillfully designed with two partners was a lot of fun and very eye-opening.

The next project I will mention was from my computer graphics course at the University of St. Thomas. In this project, I followed instructions from my Professor, Dr. Thomas Marrinan. With some help, I was able to create a 3-Dimensional model using basic drawing functionality on a web canvas and a lot of underlying math functions. This, on the surface, does not connect directly to the mission and core values of the University of St. Thomas. One way I was able to connect this project to my growth as a person goes beyond just the technical skill and practice that the project helped me hone. It involves being a good follower. To be a good leader, you must first learn what makes a good follower. Integrity and strong communication help an interaction between a leader and someone who is following them work. With this project, I was practicing being a good follower of instruction and when the time came to add a personal spin, I

was able to apply my knowledge. Being a stronger leader is something I aspire to achieve, and I believe this project helped me continue down the right path.

The last project I will describe is one that I did during my German language course at the University of St. Thomas. In this project, I was tasked with describing a German product and the process it goes through to be produced. Doing this in German pushed the limits of my grasp on the foreign language and it taught me a lot of vocabulary and grammar. Looking deeper, this also taught me some tips for communicating to an audience and describing something unfamiliar to my listener. This is a skill that makes any worker more valuable, and it is something I look forward to priding myself on in my career as a software developer.

This connects to the mission and core values of the University of St. Thomas because it shows my practice expressing myself in another language. Advancing the common good means more than improving life for those close-to-home. We need to improve the world on a global scale and that can only be done if we understand each other and work together. Language is important to appreciate and respect. In my career, I know I will work with many people from other countries and from vastly different cultures. I have already worked with people from the UK, Germany, Ireland, the Philippines, and India during my time as an intern last Summer. Understanding the difficulty others might have learning English, for example, will help me have empathy for their situation. Growing empathy will help me be a better communicator and a better person.

I would like to dedicate the remainder of this paper to express more broadly about my journey at the University of St. Thomas. I believe I have grown immensely as a person and that comes from my interpersonal relationships, course work, extra-curriculars, spirituality, health and so much more.

Coming into college, I was excited but anxious to move to a big city like St. Paul. Being from a small town of just a couple thousand people growing up, I didn't have the clearest picture of the world. This included a lot of things. One thing I am very proud of is my growth in understanding people that do not look like me or come from the same identities that I do not.

One of the core values of St. Thomas is diversity and inclusivity. Despite St. Thomas striving to achieve even more diversity in its student core, it is a much more diverse population than I was used to as a kid and young adult. I am very grateful that, today, I strive to include others and I have worked hard to tear down unconscious bias in my action and words. Being an ally to marginalized groups is one of the most important things I can do in my life and being a Tommie helped me realize that.

Part of being a good student and person is being a good citizen. To me, this means doing your duty in political processes and in activism. I have taken a large step in my life to being more informed and involved politically in social issues like climate change, racial equality, and more. Doing your part as a good citizen means being active in voting, polling, and making your voice heard. Without the foundation I was able to gain at the University of St. Thomas, I would not be as informed or involved in political and social issues as I am today.

To wrap up, I'd like to reiterate some of the main things I talked about in this reflection. I recalled my time working with the Misty II robot the rewarding challenges it brought me. I described two projects I created within the Computer Science department at UST. I gave insight to the way my German project helped me appreciate the global society we live in today. Lastly, I talked about my growth as a person and how the University of St. Thomas played such an integral role in it. I am so appreciative of all the faculty who have mentored me, students who I've befriended, and lessons I have learned. I will always be a Tommie.