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Portfolio Reflection Essay

Project 1: Hug the Angry Jarvis Game

During my Sophomore year at UST, I took CISC 230 with Professor Sawin. Our final project for the class was to create a simple game with the goal being to move your "player" to find "Jarvis" & hug him to calm him down. In this project I used HashMap, ArrayList, Strings, Scanner, & other basic Java constructs. Additionally, the game was designed with interfaces, nested classes & included dealing with exceptions & working with multiple Threads. I enjoyed this project specifically because it was something that I could show others & actually have them interact with.

A problem of interest of mine that the Hug the Angry Jarvis Game project relates to is that many students do not know if they are interested in Computer Science, especially when diversity is being considered. Many students in the United States go through their entire high school career without having been exposed to Computer Science. Important examples of exposure to get students interested in pursuing Computer Science higher education include problem solving exercises, simple programming, online self-learning and internships. This project would be a great early example to show to high school students in order to get them interested in what is possible with Computer Science. Having the students get to play the simple

game and be taught some of the basics on what the code powering the game is doing behind the scenes would be great exposure to the field. It would be very important to support the students in responding to any questions they have about the program as feeling as though one could be successful in Computer Science is a major barrier students have from deciding to pursue a career in the field.

This project relates to the common good as without diversity in technology, technology will never effectively serve the population as a whole. Currently the technology industry has major issues with diversity both in terms of gender and race. If a company has a diverse team, then a product that serves that team will be produced. Overall, in order to build a product that serves everyone, you need voices and input from all types of people. This project, used as an educational tool in high schools, would expose more students from more diverse backgrounds to computer science. Ultimately with more widespread exposure, there are better odds that the technology industry will become more diverse and as a result the major products will benefit more people.

This project in the context of being used for early exposure and education to computer science is related to the University of Saint Thomas mission statement conviction to diversity. The university strives to create a vibrant diverse community which works for a more just and inclusive society. The project also relates to the university conviction to dignity. UST respects the dignity of each person and values the unique contributions that each individual brings to the university community. In creating more diversity in computer science, the products developed will work to enrich the lives of all people, not only a select subset of communities.

Project 2: US Energy Consumption Dynamic Web Server

During my Junior year at UST, I took CISC 375 with Professor Marrinan. A group project for the class was to create a dynamic web server about US energy consumption from 1960 to 2018. In this project I used HTML, CSS, JavaScript, and Node.js. We developed dynamic routes for pages on energy consumption for a particular year, energy consumption for a particular state, and energy consumption for a particular energy source. I enjoyed this project specifically because it was my first time creating a data dashboard.

A problem of interest of mine that the US Energy Consumption Dynamic Web Server project relates to is the ever-increasing energy consumption not only in the United States but also across the globe. Air pollution, climate change, water pollution, thermal pollution, and solid waste disposal are all issues related to overall energy consumption. Much of the United States still rely on the polluting energy production methods such as coal and petroleum. This project was my first introduction to the computer science intersection with data analysis and statistics. It was during this project I learned that with my computer science degree I could pursue a career that could have a positive impact in relation to the planet. I would love to one day work as a Data Scientist in renewable energy as it combines my technical interests with an issue that is particularly important to me.

This project connects to the common good as it is the framework of how to effectively communicate information. In this application, although fairly basic, is a building block of creating a comprehensive energy data dashboard. With more development, this project could be bolstered into an effective tool for interpreting the impacts of energy use by type, by state or by year. Overall, study of the climate is an essential aspect of the common good. The environment is a common good that is a necessity of life for all humans on earth.

This project, as it is a method of information communication, is related to the University of Saint Thomas mission statement conviction to the pursuit of truth. The university values intellectual inquiry as a life-long 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. This data dashboard is an early introduction for me to the pursuit of truth in the Computer Science field.

Project 3: Reflection Document for the UST Laudato Sí Action Plan

During my Senior year at UST, I took THEO 459 with Professors Anthony & Hickson. The group project for the class was to create a Reflection section for the University of Saint Thomas's Laudato Sí Action Plan, making clear how St. Thomas's values and mission connects with Laudato Sí. This project required that I became very familiar with the University's Sustainability Initiatives. It involved interviewing key people on sustainability initiatives at UST and developing a deep understanding of what UST is doing and where it can improve. Finally, it required that I understand the connections between Laudato Sí UST's activities, in order to develop a reasoned and measured reflection.

A problem of interest of mine that the Reflection Document for the UST Laudato Sí Action Plan project relates to is the climate crisis. Climate consciousness is something that during my time at the University of Saint Thomas I became very interested in and ultimately led me to make significant lifestyle choice changes in order to try to do my part. Pope Francis in his papal encyclical Laudato Sí explained that “climate is a common good, belonging to all and meant for all. At the global level, it is a complex system linked to many of the essential

conditions for human life. A very solid scientific consensus indicates that we are presently witnessing a disturbing warming of the climatic system". This project directly connects with the University of Saint Thomas as it is a collaboration with the institution. UST has a major Sustainability Strategic Plan which is central to supporting the common good.

This project relates to the common good as it is an informative document on the University of Saint Thomas in regard to the climate crisis and what the institution is doing to be more environmentally friendly. This reflection document creates an opportunity for dialogue between the university and its community. The community is able to gain insightful knowledge on the operations of the university and provide feedback on what is working well and where there could be possibility for improvement.

The University of Saint Thomas mission statement conviction of faith and reason relates well to the reflection document project, The university engages in Catholic intellectual tradition, valuing the fundamental compatibility of faith and reason. Fostering meaningful dialogue directed toward the flourishing of human culture. The reflection document is an excellent example of faith, as the reflection document is celebrating the accomplishments of the institution while also giving constructive criticism and feedback from the perspective of the community. Using this project as a source of inspiration for what is possible at the university, can truly bring the Saint Thomas community together in faith. Collaboration between the community to build a better climate future fighting to slow the effects for all.