5/9/2024

St. Jean, Austin

Computer science

Project Exit Assessment

Self-Reflection

# General Learning Outcomes

Ever since entering the world of computer science it has been an ever-changing experience for me, giving me curve balls when I least expect but also demonstrating how capable I am in thriving in this field given different situations. This field has shown me all these skills I didn’t know I had as well as helped me improve everything that I learned along the way. In previous years I could say I was a hard worker, focused, good team player, time manager, these I still am but with more proven skills such as communication, adaptation, efficient effective teamwork, and awareness for others and myself.

In the world of this technology, problem solving has been at heart of any project or activity. I would complete challenging assignments such as ConnectN in Programming III, building my own web store in Web VI, and building a chat room in Web III and be satisfied with my approach and how I complete my work, serving as a building block in my problem-solving skill. This knowledge was a good basis that continued growing with each completed assignment where I became more aware of what I could complete. This experience made getting started on more significant projects simple as my now defined skills were easily applicable and I could continue to grow my skills from there.

My knowledge would have to adapt when it came to the team projects introduced which were introduced in third year. Starting with the maintenance project where I worked on HCMS with 3 other team members, I already felt comfortable working with a team as HVK in Web V proved I was capable. As time progressed my team adapted to each other focusing on each other’s strengths, communicating with one another how we can manage our workload effectively given the client’s requests, making our time more effective and efficient with each passing day as we got better at it. With the experience I gained from my maintenance project I would be able to easily apply what I learned into my Development Projects I and II courses.

Coming to the end of my time in the computer science program, I can say with confidence that development projects II was the best experience I had in the computer science course at Heritage. My team has a huge role in that, we were all very supportive of one another and had a sense of passion and respect we all grew as we continued working on the project. My favourite aspect was being able to build something from the ground up and provide ideas while supporting others, merging each of our thoughts into what we have today. The FitHeritage system is a symbol of so much more than just a fitness app to me. This project took hours, days, weeks of time to create where at times things felt overwhelming or unachievable. Our team took on the challenge of using technologies we weren’t completely familiar with but felt would be beneficial for our project. This proved to be an obstacle as our approach would be much different than other groups, but we adapted and applied all that we learned in years prior while also learning new skills on how to tackle this challenge. Taking what I learned from maintenance my team focused on our strengths, becoming another better version of my team prior. My experience with teams in computer science have been overwhelmingly positive and I’m grateful for that as I don’t think what I’ve accomplished would not be as significant if it weren’t. I’m a better communicator, listener, and supporter for it and I know where my strengths lay.

In conclusion, the Computer Science program has not only equipped me with the technical knowledge I need to be placed into the work field but has also shaped me into a more well-rounded person who is ready to take on any new challenges in the future. As I step into the next part of my life, I’m happy with what I can takeaway from what I’ve accomplish in computer science as I’m able to grow with every step I take.

# Third Year Learning Outcomes

During my third year of the computer science program, I dove very deep into everything this department has to offer. As my time is nearing its end in the academic field, I feel my knowledge and understanding on concepts, principles, and practices has grown greatly. Through courses I attended such as Development Projects, Systems Maintenance, and IT security I feel I’ve gained a lot of experience to apply my skills to professional situations.

Out of all the courses I attended I am most proud and happy with what I accomplished in Development Projects. In this course I was able to build an application from the ground up, designing its features, scheme, interface, and layout. I worked on a project called FitHeritage, my team planned, analyzed, and discussed all the best approaches to get to the final deployment of the system. My team prioritize test driven development using fake data at the initial portions of creating this project. This made substituting for real data easy and ensured confidence in our code and solutions. Over the life cycle of the application, I was able to view and build this project in multiple different environments. First, using a local version of the project to develop all the requirements I had been tasked to do. Once the project was at a state of high quality it was progressed into a test and dev environment, to be able to view the project deployed on the web, testing its features ensuring its security. My understanding of security principles has been obtained from a series of different places. In my IT security course, I dove into the theoretical side of cybersecurity, learning about the importance of understanding an asset, their vulnerabilities, and attack surfaces. Discussing many different cyber security principles security experts use in their everyday lives such as defense in depth, ensuring your assets don’t have on single point of failure, and least authority, where users are restricted to permissions they need to perform their intended tasks. We also discussed separation of privilege; a system should not elevate permissions based on a single condition. These principles were all something my teams and I implemented into our development project course and maintenance course respectively. Safeguarding our project’s integrity, confidentiality, and availability. Another thing my team and I were keeping in the back on our minds was ensuring the system’s comprehensibility and usability so that a future maintenance teams will want to pick it up to continue its development. It was important to us that we documented well ensuring that things would be easy to understand for any developer that wasn’t familiar with the system’s functions. This had been a priority for me as in my first semester of third year my project in systems maintenance proved its significance.

In the Systems Maintenance course, I took on the responsibility of enhancing the features of an existing application. This project is called HCMS (Heritage Co-op Management System). Something that became very clear to me is how informative and descriptive the documentation had to be to make picking up this project easy and understandable. It was simple to comprehend their architecture, diagramming, and design based on the clarity and comprehensibility of their documents. By the end of this course, I was able to apply these practices I learnt to my development projects system. I aimed to ensure future team members would benefit as I did in projects prior.

In conclusion my third year in the computer science program and be transformative. Through courses I attended like Development Projects and Systems Maintenance, I gained valuable experience in application development and project management. Working on the FitHeritage and HCMS projects I have developed my skills to a very comfortable level, encompassing my understanding of aspects such as design, analysis, implementation, security, and testing. Moving forward, I am happy to apply my qualities to the professional world, as I am confident with what I’ve been able to accomplish during my time in the academia.