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Computer Science

May 1, 2020

First Year Program Exit Assessment Reflection

As expected, in my first year of Computer Science I didn’t learn all the skills needed to graduate. I do, however, feel I learned a lot. The first I’d like to talk about is problem solving and analysis techniques. This is something I learned in detail in my Math for Computer Science, but really put into practice in our Programming and Web Programming because I ran into problems and bugs in every single assignment and weekly lab. In order to solve these problems, I had to use the skills I learned in Math and the skills I had acquired through personal experience and apply them to programming. These skills include things like accounting for all possibilities when I got error message, thinking about and writing down what was happening in each iteration of a loop, using creativity to use concepts we learned a long time ago and apply them to the current assignment or lab, and of course, asking for help. Asking for help is a very important problem-solving skill as it allows you to not only spend less time on whatever it is you are doing you are trying to, but allows you to catch bugs you didn’t pay any attention to and to think about other ways of solving the problem. This is something I feel I really learned the importance of this year as there’s just so many people view and solve programming problems, and everyone is different. Time management is another thing I’d like to talk about as this was something I struggled with, especially during the later months. The transition between high school and CEGEP was fairly smooth but as time went on, the work in CEGEP got longer and harder, and due to this, new responsibilities of being an adult, and personal problems, I struggled to keep up. This experience was amplified when we had to switch to remote learning because of the many distractions I face at home and not being able to be helped and motivated by others to the same extend. Our Business in the Workplace course tried to help with this by teaching use about time management skills and giving us weekly time management assignments, and to an extent it worked, but ultimately it was always up to me to get things done. This is definitely something I need to work on. Adapting to industry changes was never really a problem as the program is very up-to-date and this first year of programming is the only one I’ve ever really known. In terms of my other general education courses I mostly learned things unrelated to Computer Science but since they gave more work, it meant I had to manage my time better. Both my physical education classes did, however, a good job of me showing the importance of teamwork.

In my first year, I learned how to perform the tasks required for a technical analyst. I learned how to fix computer and network problems in my Hardware and Operating Systems and in my Networks course, and learned the steps needed to deliver optimal technical support to clients. I had a lot of interviews for co-op this year, which helped with this as well as they taught me exactly what I’d be doing in a technical support job, which I could then compare to what I had learned. In my Programming courses and in Web Programming 2, I learned how to solve simple problems using Java and JavaScript. I learned the theory part of this in almost every lecture and practiced what I had learned and solved problems in the weekly labs, and in the much longer assignments, one of which being a fully functional game of Sudoku I made in my Programming 2 course. In my Web Programming courses, I also learned how to solve problems using introductory web technologies. I used HTML, CSS (and CSS libraries), and JavaScript to create many websites, and in doing so, I had to frequently solve problems using web technologies. A great example of this is the final Web Programming assignment I did in the first semester, in which we had to make a fully functional site that sold a product. I learned the mathematical part of Computer Science in my Math for Computer Science course. I learned number systems such as binary, concepts of logic, Boolean algebra, statistics, and problem-solving in the lectures and demonstrated that I could use these concepts in the labs and assignments. The last of which I also demonstrated in my Programming and Web Programming courses as problem-solving skills are vital for programmers to have. In Business in the Workplace, I learned business and workplace skills required by a Computer Science professional, such as time management and motivation skills, how to deal with ethical dilemmas, how to write resumes and cover letters, and got practical experience with Computer Science job interviews. In this course, we also spend a good deal of time learning about the different parts of Computer Science, and all the main jobs in the industry and what they do. For example, we covered technical support jobs, network analysts, programmers, full-stack developers, and testers.