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To Christopher Elliott

From Brandon Rouleau

Computer Science Co-op Work Report

The Co-op work term that I will be describing lasted from May 6th to August 16th. This specific Co-op term was served with the Department of Fisheries and Oceans under the subbranch of the Canadian Coast Guard. For the duration of the work term, I worked on the Fleet Status System under the direction of my team lead Michelle Le.

The Canadian Coast Guard is a special operating agency within the Department of Fisheries and Oceans that works to ensure the safety of mariners in Canadian waters and protect Canada’s marine environment. They also support Canada’s economic growth through the safe and efficient movement of maritime trade, and they help to ensure the country’s security through their presence in the Canadian waters. The Canadian Coast guard works to achieve these goals using a multitude of different ships, aircrafts, and stations that each subsequently use multiple software and technologies to ensure the safety and health of Canadian waters. An example of a ship that is used is an icebreaker called the Griffon, which I got the pleasure of going to visit whilst working for the Canadian Coast Guard.

I was hired at the Canadian Coast Guard as a programmer. As a programmer I was assigned to the Fleet Status System team which is a system that is designed to track and manage the Canadian Coast Guard’s fleet operational status, track and manage all of the assets within the Canadian Coast Guard’s status details and maintenance status, and provide users with high level reports about the Canadian Coast Guard’s fleet. Daily activities that occurred during my work term included scrum meetings with the team, weekly meetings with the client for the purpose of business requirements, developing new features for the software, fixing bugs within the software, and reviewing other teammates features and code before they were implemented into the software.

My technical environment consisted of using a laptop that was running Windows 10. Regarding technologies used, we were using Microsoft Visual Studio, Microsoft Visual Studio Code, and SQL Server Management Studio as development environments. We also used Microsoft Azure DevOps and Microsoft Azure Cloud Services as our DevOps tools and to run our server and pipeline. Whilst developing features for the system we used C# utilizing the .NET framework for the back end, Javascript using the VUE.JS framework for the front end, and MySQL for the database.

The skills that I learned in the Computer Science program were quite useful throughout my work term. Learning MySQL allowed me to already be familiar with how to use the database, and the HVK project that we did using C# and .NET allowed me to have an initial grasp on how to work with the back end. Furthermore, the teamwork that we did within the HVK project in the program allowed me to understand team dynamics and how Azure DevOps functions. Within the work term I learned many new skills such as how to code using Vue.Js, I gained basic knowledge on how pipelines work, how to use the version control software GIT, and how to interact with clients in a professional manner.

I think that this work term was fantastic. I was well prepared for the experience, and I was well prepared for the role itself. The highlight of my Co-op was definitely the team itself. Everyone was incredibly welcoming and fun to work with. Also, the trip we took to Prescott to visit some of the boats was really fun too. I don’t have any suggestions on how I could have been better prepared, nor do I have any suggestions on have the work term could have been improved.

In conclusion, I think the Co-op was an absolute success. I learned a lot throughout the work term and I really enjoyed my time there. The work was very engaging and although I struggled at times, that’s what made it fun. The team was incredible, and they provided me with help whenever I needed it.