

## Memo

To:	Beauparlant, Alain
From:	Matthew Ferderber
Date:	August 21
Re:	Computer Science Co-op Work Report

My work term this summer from May 20<sup>th</sup>, 2014 to August 22<sup>nd</sup>, 2014 was at ESDC (Employment and Social Development Canada). Coming back to work at ESDC for my second work term was a great experience. Working with the same group as I did last work term allowed me too easily to get to know everyone. It was a pleasure to work with my supervisor Lynn Latour. ESDC's (Employment and Social Development Canada) mission is to create a stronger, competitive Canada and to support Canadians with choices in life. ESDC has several different branches with many different functions. The IITB branch (Innovation, Information and Technology Branch), provides information and technology services to the department. Business applications to streamline work processes, processing millions of transactions and providing easy access to data.

### My Position

My position at ESDC was a .NET Developer. My tasks included: Upgrading systems to modern web standards, fixing bugs, writing well documented .NET code and testing various .NET applications. This work also included maintenance on applications I had previously worked on last summer.

The environment in which I worked during the summer was a cubicle in a new ESDC building (20 Rue Eddy, Gatineau). I was working on the same floor of the same building as I did last year. However, this year I was sharing a cubicle with another co-op student. My workstation was a regular desktop computer with Windows 7 which I used primarily for programming with Visual Studio (both 2010 and 2012 versions). Other software included SQL Developer (Oracle DBMS), Firefox and eclipse. The programming languages I used were JavaScript and VB.NET. A project in Java was planned but didn't start during the work term.

### Skills Used & Acquired

During the work term, the skills I learnt from Web Programming were expanded on by working on various .NET applications and using many of the techniques we learnt at school to create or modify applications. Having a good understanding of Oracle databases also helped because the applications I worked on used stored procedures for nearly all of the database access they required. Having a good understanding of the many issues you can encounter from .NET also helped speed up fixing any bugs and I noticed that many of the things I didn't understand during last year's work term make perfect sense to me now.

My work term at ESDC improved many of the skills I find we don't work on often at school. An example of this could be documenting code. During the school year, because there are always a large amount of assignments to be done, I find I don't spend any time writing

documentation. During my work term, I documented anything I found needed explanation. Another subject that we haven't covered at school is source control. When working in a team, having an environment to work in seems really important to me. Tools like Git, TFS (Team foundation server) and SVN (Subversion) allow everyone in the team to work without overwriting files or losing progress. Understanding how to use them well seems like a skill that is really important to working efficiently.

## Co-op Experience

This work term, I didn't need to prepare much. Because of my previous experience working at ESDC, I understood the various systems. However, this year I was also at an advantage because I spent all of last semester working on projects in .NET in web programming and programming classes. The only difference ended up being the language we used. During the school year, we wrote applications in C# while during the summer we used VB. The difference in programming languages didn't really matter that much because my understanding of the .NET framework allowed me to pick up the language simply by learning the syntax.

The project I'm most proud of from my work term is probably my work on a web template system. The web template allows users to create application much faster by handling design and functionality of many common web pages. Some examples of what the web template includes: Login system, News system, Report system with drill down support. Many of the components of the web template are created using User controls which allows users to plug-in the functionality that they want. I'm most proud of it because it should drastically decrease the amount of time it takes to develop a working application.

The one aspect I think I could have improved on would be to take more notes when talking to other co-workers. I noticed a few times where I missed small requirements which then had to be added later. Had I recorded what they were talking to me about, I may not have missed those questions.

The only complaint or suggestion that I have from this co-op experience would be about the start of my work term. Because paperwork was not finished by my employer fast enough, all students starting in our group ended up starting on the 20th instead of the 5th. Although it was nice to have more time during the summer, I would have preferred to start working earlier. I'm not sure what could be done to improve this. Maybe more communication needs to be done with the employer to ensure a spot for students who are offered a job.

## Conclusion

My work term at ESDC was a great experience to learn a lot about developing applications in a team. I was able to learn valuable skills, work with great people and help create applications which will help speed up common tasks. Although it may have been difficult at times with deadlines, it was very interesting and Co-op was a great way to learn about the Computer Science program and what awaits me in the future after school.

## Resume

See attached