interoffice memorandum

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| to: | Alain beauparlant |
| from: | Andrew ha |
| subject: | computer science co-op work report |
| date: | August 24, 2017 |
| cc: | Sandra stark |
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During the course of my summer vacation I worked at ESDC (Employment and Social Development Canada). More specifically I worked at 22 Eddy for the full duration of my employment, which was from May 1th to August 23th. Every time I needed a new task, or whenever I found myself in a situation where it, had to be escalated to a higher up (clarification from the clients), I would refer to Luc Beaulac. Luc is the supervisor/team leader of my group, and he would usually help solve these situations.

ESDC is a part of the government of Canada. ESDC, they’re mainly responsible for developing, managing and delivering social programs and services which span all of Canada. Examples include the Employment Insurance, Financial Aid/Loans and the Canadian Pension Plan. The mission of the Employment and Social Development Canada portfolio, including Labour and Service Canada, is to build a stronger, more competitive Canada, to support Canadians in making choices that help them live productive and rewarding lives, and to improve Canadians' quality of life. However for my team more specifically we were known as the FWS (Foreign Worker System) team. We were helping develop a System that would aid Canadian businesses hire foreign nationals. We were in the midst of converting an older VB Web forms system into a more modern C# following the MVC software architecture. This System would essentially be a giant questionnaire.

For the entire duration of my employment, I worked as a Programmer. The daily activities involved developing, maintaining or debugging the System. There were two main categories for the System. One was the intranet version for Officers to use and the other was the Web facing version. I only touched code for the intranet version. Generally, my day to day activities varied, as it depends on what task was assigned to me. For the first few weeks I was troubleshooting bugs that they assigned me just so that I could get familiar with the System. Soon after I was tasked with helping develop some of the Views that the System required which were unfortunately somewhat complex and was probably one of the tougher tasks. Some other tasks were going through some previous created Views (.cshtml pages) and making sure that they follow the business requirements. Since the Views were created a while back, the BRs were changed drastically so I essentially had to remake them. Another thing I was doing for few days was going through the Views that I fixed and essentially cleaning up any unused references of code. This included DB calls and subsequently cleaning up the DB became part of the task as well. During my last few days we I was given some tasks such as making classes match extremely big database tables and I learned how to start automating my work.

In terms of Hardware, I was only working on a Ciara PC (Windows 7 OS) the entire time. I also had dual monitors. I believe we had two servers, one was for testing and the other was development. Both servers were running Oracle 12C. The programming languages that I used were mainly C#/Razor Syntax (MVC), Oracle SQL, JavaScript/jQuery and HTML. In terms of software I pretty much used everything we learned at school. I used Visual Studio 2013, although we later upgraded to Visual Studio 2015. We used SQL developer, Excel, Word, Note Pad++. Compared to last year I used emails and Lync a lot because communication between the team is key.

Regarding skills that I learned from the Computer Science program that I applied, was learning how to program effectively and efficiently. I had to actually think about how I wanted to implement certain functions and how needed to be highly cohesive/low coupling for future iterations. I had to make my code robust and add proper exceptions/validations There were a lot of bad practices I saw while I was working which I tried to actively avoid. Seeing all the spaghetti code that was running on the System, reaffirmed that I was actually leaning how to program the correct way. I also learned about a couple of open source libraries (Web Experience Toolkit) that I am definitely going to be using for my future assignments.

When I first came into the coop experience I knew that I was pretty prepared. I realized later that I was extremely over-prepared for my co-op. This is because pretty much what we did for all of 2nd year was exactly what my co-op did. For example using Web Forms helped me understand the old VB .Net portion of the System while the different access layers that we did in class at C# helped me understand the newer part of the System. The SQL queries we did in class were way more complex than the ones here.

What I could’ve done to prepare better was that I should’ve taken more initiative in trying to learn MVC while I was at home, as that probably would’ve sped up the learning process. Instead, I chose to only do programming related things at work, so there were two to three weeks wasted trying to get used to MVC syntax and what was happening and how that behaved with the System. How the work term could be improved is nothing to be honest. I’ve had a lot of fun working here but to be honest, it kind of makes me unsure if I want to continue this field. Maybe it was because I was a student, that I wasn’t doing the really important tasks or maybe that I wasn’t there from the beginning but I didn’t have much drive in wanting to complete my tasks as soon as possible. I still got them done, but it wasn’t the same satisfaction of say, finishing a part of HVK. This is all just personal opinion, however and from an overall perspective, I got a lot of work for the entire duration and it was new things that we’re learning in semester five. I can’t say for any other students but at least for my co-op there is nothing that needs to be improved about it.

In conclusion the Computer Science program over-prepared me for my co-op job. As much as I don’t want to say it, Allan was right. This program is tailored especially for the government. There’s a reason why the program is extremely tough, and that is because we know an extreme more than other students from other schools. They only knew Java, and a little bit of SQL and had to adapt at the job. I came in knowing everything.

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| **Andrew Ha**  38 Alphonse Daudet, J9J 3y7, Gatineau QC  Ha.Andrew@cegep-heritage.qc.ca |  |

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| **Skills** | **Teamwork and Management**   * Ability to work effectively and efficiently with others * Proven to work alone without any supervision   **Technical Skills**   * Programming experience: Java, JavaScript/jQuery, HTML5, CSS, Bootstrap, Ajax, Node.js, Python, PHP, Oracle SQL, SQL Server, PL/SQL, ASP .NET Framework, C#, Agile Development, MVC, Web Forms, WET * Software: Eclipse, Dreamweaver, FTP (FileZilla), Oracle Data Modeler, Oracle SQL Developer, WebStorm, PhpStorm, Visual Studio 2015, MS Office * Operating Systems: Windows XP-10/Ubuntu * Hardware: Computer assembly and maintenance, troubleshooting hardware issues, installing software to user standards |
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| **Education** | **Heritage College**  September 2014 - May 2018  Program: Computer Science   * Currently maintaining an 85% average |
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| **Experience**  **Activities & Interests** | **Programmer**  **ESDC FWS Team – Gatineau, Quebec** May 2017 – September 2017   * Aided in the conversion and development of the Foreign Worker System from VB to a more modern C# version * Coded using the MVC architecture * Handled database tasks (Oracle SQL) and Web Programming Tasks * Communicated effectively with team members in order to finish tasks as efficiently as possible.   **IT Technician ESDC NCR Team 2 – Gatineau, Quebec** May 2016 – September 2016   * Responsible for resolving customer issues by answering tickets and emails pertaining to users’ computer problems * Managed network configurations to ensure that all computers on a network can communicate effectively * Maintained documentation of technical maintenance procedures carried out * Always looked for different ways to improve service given to customers   **Manchu Wok**  November 2014– Present   * Required to maintain high standards of customer service during high-volume, fast-paced operations * Handle cash and credit transactions quickly and accurately * Serve and assemble orders for customers   **Activities**   * Reading * Cycling * Cooking |