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Summarizing my experience in Los Angeles this semester properly is quite the challenge but I will endeavor to come reasonably close to the mark in the space I have here. Some discussion will be most useful to other students considering a co-op in the field of computer science/software engineering but I hope most of the things I have learned can be extrapolated to other fields without too much work. For the purpose of weighing aspects of the co-op experience against each other, I would note that I have felt the job and the people you work with are considerably more important than other factors such as location and accommodations. One qualification before beginning: this discussion is limited to my experiences and the multitude of factors that shaped my time here will undoubtedly vary substantially from person to person.

My role on the Hulu team was a programmer. As an intern I was not affiliated with a specific sub-team but worked on many different projects throughout the year. Upon arriving I was given a brief introduction to the team and then my first project. That first day I began work on Hulu's Facebook applications for TV's fall premieres. I had never done any web development so there was a lot of things to learn quickly but I had a lot of help and we got the product out on time. After that initial dash things settled down a little; I had my bearings and felt more comfortable. I attended a more formal orientation and got a better idea of the company's culture. I was assigned a mentor who definitely was a huge help but was fortunate also to find all of my co-workers willing to help. This openness is one of the benefits of working for a small startup; the power structure is still relatively flat and the employees are personally invested in the company. While starting so quickly was stressful, I think hitting the ground running helped break any ice and made sure I would be able to get the most out of my limited time this fall.

As I mentioned before there were technical aspects of the job I was unprepared for. A class in
web development would have helped but every organization and field has its own vocabulary and specialized knowledge base so it is likely there will be a learning curve at any business. What ended up being most important to me in catching up was the problem solving skills and study habits necessary to perform well academically. My experiences taught me there were many things that are more important than raw technical knowhow. Specifically I found my role as an engineer required me to serve as a translator of sorts, converting real world ideas, problems, and requirements into digital realities. One of the most challenging aspects of this was balancing what I was able to do in a reasonable amount of time with the technology and what would be ideal from a business point of view. Engineers' time is a valuable resource for any company and so I had to learn to solve the problem well in a day rather than perfectly in a week.

Changing gears, I found housing through a listing service membership provided by Hulu. Although picking a place in an area I was totally unfamiliar with was a challenge, my housing situation worked out well. Transportation was a little bit more difficult; mostly for economic reasons I choose not to have a car in Los Angeles. While I was able to find convenient bus routes to take me to and from work, the public transportation system in Los Angeles suffers from having to cover the immense sprawl of the city. This meant doing things like going to a concert, seeing the museums, or attending a sporting event had to be planned far in advance and this kept me close to home much of the time. While the expense of having a car may still outweigh these problems, your transportation situation will dictate in a large part what you are able to do so it is important to plan ahead. Getting rides from friends can work in a pinch but shouldn't be your first plan.

The best things about working for Hulu have to be working with a team of people who are personally invested in the fate of the company, doing work that has an immediate impact, and being on the front lines of a shift in the industry. If I could do it again I would be quicker to ask questions and more open to taking chances. When I return to Cornell I will have a new perspective that I believe will help me get more out of my classes. The past fifteen weeks have gone by quickly but I doubt I could
have learned more anywhere else.
Job Summary

After the great experience I had in the fall of 2010 with Hulu, I entered this summer with high hopes and I have to say I was not disappointed. When I started the process well over a year ago I could not have written a happier ending. To be quite frank, I have thoroughly enjoyed my time here in Los Angeles and am excited for what the future will bring. I plan to discuss several aspects of my time here in this summary and, while some of it will be technical, I will start with some general remarks hopefully applicable to more than just other computer science majors.

This summer I was fortunate enough to be able to room with a co-worker with whom I had become friends last fall. This reduced my rent and also helped ensure I would not have roommate issues. We lived about a mile from the Hulu offices so I could walk in a pinch. Most of the time however, I rode the bike that Hulu provided me for the summer. Last fall I had lived significantly farther away and had not had the bike which, needless to say, made it more difficult to explore the area. While in some cities having a method of transportation in addition to public transportation is unnecessary, I have found that this is not the case for Los Angeles. Having a bike made a dramatic difference in my experience as I was able to explore more of the wonderful things the area has to offer.

While the bike definitely helped me see the sights and sounds; the intern events were more helpful. Hulu planned and funded intern events that ranged from a day at the beach to a paint ball competition. The other interns and I (there were about 10 of us) had one of these almost every other weekend. Hanging out with your co-workers in a relaxed environment really helped me feel comfortable approaching them during the week and also was a great excuse to have some fun. Besides the scheduled intern events I also was a member of the Hulu soccer team. We played every Tuesday and I looked forward to it every week. It really is a wonderful experience to be playing a sport with your boss’s boss and feel like teammates. These outside-of-work interactions were crucial in helping me develop profession relationships that greatly assisted my efforts this summer.

This summer I worked on the devices team at Hulu, specifically the team that is bringing the Hulu Plus service to many different TV’s, gaming consoles, and Blu-ray players. My first project was joining the sub-team that was preparing the Samsung and PS3 applications for the beta launch. The applications were written in JavaScript, a language I was familiar with from my previous Co-op term. Some of my major contributions to the project included finalizing the
login flow, reworking the onscreen keyboard, setting up the video quality selection interface, and improving the loading speed of playlists. Another major responsibility I had was the investigation into lower powered Blu-ray players and what, if anything, could be done to support them. Finally, I also helped to provide a quick response time during the QA iterations with Samsung. I was able to contribute to the team by seeking feedback from my co-workers and discussing plans for further development. Code reviews were important as well as informal meetings where we could share ideas and synchronize our efforts. Throughout it all I learned the importance of a good bug tracking system and the benefits of having a record of development iterations. In addition, I began to understand best practices when working within a constrained environment and how to ensure the final product is stable and extendable. Finally, I was able to see how a QA process with an outside company works with the accommodations and dialog that need to take place.

The second half of the term was spent working on another application designed for internet enabled televisions and Blu-rays. This involved building a web-server to server XML responses to the client devices. Python was used to implement the server, another language I had become familiar with last fall. I leveraged my experience from the JavaScript application and the design patterns I had learned to lay the foundation for the server and then used weekly code reviews and more frequent informal meetings to refine/refactor the design. As the project began to take shape I learned that reading documentation cannot substitute for contact with the engineers who designed/are working with the system. I also learned about the complicated methods used to protect the copyright of the premium content we deliver. Finally, I came to a better understanding of the principles necessary to organize a large piece of code. I was pleasantly surprised that Hulu would trust a project like this to an intern and felt the responsibility helped motivate me and encouraged me to perform at a high level.

In closing, I will relay one experience which says a lot about the people who work here and the experience I had. When Hulu Plus was about ready to go public the idea was tossed around to create a seven segment counter which would display the number of subscribers we had at present. One of the other interns at Hulu had taken responsibility for this project and asked me to help. We managed to finish the circuitry and code required in one night and I learned more about circuit design than I had in many entry level classes. Having the display up and running was very satisfying and our co-workers were pleased to see the fruits of their labor. That fact that we were allowed, encouraged, and funded during this extra project, which was outside of our fields of study, and the rewarding experience it became speak volumes for the experience I and the other interns had this summer. If you are reading this and thinking about a Co-op yourself and have any questions about my experiences please feel free to contact me. Thank you for your time.