Cornell Engineering Co-op Program
Job Summary

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NetID: mnb44
Materials Science and Engineering, 2014

During my work term, I was primarily responsible for testing and qualifying MEMS sensors (mostly accelerometers and gyroscopes). I worked with a few other engineers and programmers to develop code, create a testing framework, and perform tests and analysis on many different sensors. I was the primary user of the Sensor Qualification testing, and I had much help from my supervisor and other co-workers.

In addition to my sensor qualification work, I led a project to design a new motion control system to test and calibrate the MEMS sensors. I ran motion simulations on the MEMS sensors, and generated reports on the sensors’ performance. I also helped in other various projects with the applications team on smartphones and other motion software devices.

I was a member of the Hardware team at Hillcrest, and I worked mostly with my team members each day. However, I also met with co-workers in the software and applications teams. My supervisor was the head mechanical engineer, and my mentor was the head of the applications team. Hillcrest is a small company with a very open atmosphere, and I was glad to work with my team members as well as senior members of the company.

I am majoring in Materials Science and Engineering at Cornell, which did not help me very much with my work activities. I did use plenty of skills from general engineering classes, such as programming, engineering computation, math, and physics. I also think my materials science classes helped me prepare for the work experience, although those classes were not directly applicable to my work. I am still unsure of my career interests, and I feel like my co-op gives me an excellent idea of a possible career path. I learned all about working in a corporate setting with other engineers.

Life outside the Co-op was a bit difficult for me, as I was not near many friends or family, and there were not many college-aged people living near me (in Gaithersburg). I did to into DC often on the weekends and there are plenty of things to do there. I preferred finding housing that was near my work, and there are many apartment complexes in the area (they can be expensive, though). I recommend finding an apartment near the Red Line (metro) to get into DC.

Overall, my first term has been a very positive experience. I am glad to have the opportunity to have this new experience, and I feel much more prepared for my life after graduation because of it. It was not an easy adjustment to leave the college life for a few months, and the work was sometimes slow and uninteresting. However, the people and the work environment at Hillcrest were excellent and I thoroughly enjoyed my work. I gained more experience than I could imagine in a few months and took advantage of many interesting opportunities. I felt that I expanded my engineering knowledge, developed my career goals and network, and gained many skills that will be very useful for my future.
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In addition to my sensor qualification work, I led a project to implement magnetometer performance testing for Sensor Qualification. Using reference sensors, a Helmholtz coil, and a power source, I was able to measure and collect magnetic field data from MEMS sensors. I then developed code and testing procedures to collect and analyze this data to determine the sensor performance.

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Life outside the office was a bit tricky, as I was not near many friends or family in the Maryland suburbs. However, after a few months, I met a few friends in the area including the other interns at Hillcrest. It was not very difficult to go into DC on the weekends and there are plenty of fun things to do there. I preferred finding housing that was near my work, and there are many apartment complexes in the area (they can be expensive, though). I recommend finding an apartment near the Red Line (metro) to get into DC.

Overall, my Co-op at Hillcrest has been a very positive experience. I am very thankful to have this opportunity, and I feel much more prepared for my life after graduation because of it. I learned how to adjust from college life into the real world, and I learned the ins and outs of working in a professional engineering work environment. The people and the work environment at Hillcrest were excellent and I thoroughly enjoyed my work. I gained more experience than I could imagine in a few months and took advantage of many interesting opportunities. I felt that I expanded my engineering knowledge, developed my career goals and network, and gained many skills that will be very useful for my future.