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Class of 2012  
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Mindy Feng

**M**y Burch Fellowship took me to Honduras to be trained and to work as a biomedical technician repairing medical devices. It was one of the most rewarding and educating experiences of my college career. Not only did it reinforce my career goal as an engineer, it also gave me an opportunity to build professional and trustworthy relationships with my colleagues.

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I embarked on my journey with goals to get hands-on experience, to live in a different cultural environment, and to travel. But when my summer came to an end, it was the relationship I built that I cherished the most.



I began my journey in June 2011. Over the course of four weeks, I began training in medical instrumentation with a local instructor in San Jose, Costa Rica. Meanwhile, I also worked extensively on my Spanish skills, especially on vocabulary dealing with medical and general maintenance. I have a strong background in troubleshooting electronics from my coursework in biomedical engineering, but repairing a broken device is far more involved than troubleshooting a simple circuit. Typically diagnostics of a device could take hours before finding the cause of error. The instructor also led visits to nearby, well-equipped hospitals for students to shadow experienced engineers. The four week training was effective in getting my feet wet in the field, but the next four weeks working independently in a rural hospital taught me more than I could have imagined.

In July 2011, I arrived at my assigned hospital in Trujillo, Honduras. It is a small town on the northern coast with a medium-sized hospital serving a very large geographical area. I worked closely with another engineering student and our colleague at the local hospital. Starting day one, we went straight

to work. The hospital has a certified technician but it turned out that he was on disability leave for several months. There was a stock room full of instruments waiting to be repaired or calibrated. In addition to broken equipment from the hospital, many medical devices donated by other countries arrive periodically but a large portion of them were damaged during shipment.

For the first three weeks, my partner and I stayed busy every day. We had many devices that needed to be repaired along with a constant flow of new ones arriving. We may have been trained to repair medical instruments, but we were by no means experts. From time to time, we had to track down the department from which a piece of equipment came and figure out how it is supposed to work.

This allowed us a great opportunity to interact with the rest of the hospital staff as well as to gain their trust by communicating with them. Sometimes, we referred to internet resources to find manuals or contacted manufacturers for



technical assistance. Over the course of four weeks, my partner and I repaired a total of three infant warmers, two defibrillators, three ultrasound machines, one electrocardiography machine, five air compressors, six infusion pumps, one electronic balance and a washing machine.

At the hospital, we worked closely with three technicians. Over the month, they became our go to persons for questions on getting hardware components, ordering spare parts from other

cities, and advice on safety and directions. Not only did we collaborate on different projects and repairs around the hospital, we shared stories about our hometown, travels and family. On a day off, they took us to the old cemetery which is a small local attraction; they told us the famous local tale of an American pirate who tried to invade northern Honduras; they even drove four hours to drop us off to the nearest city to the catch the bus on our last day.

The summer came and went, but the experience and the memories will stay with me forever. There were some rough times where I had communication issues, there were plenty of times

where I was frustrated with a piece of equipment, but at the end of the day it was encouraging to think that I was doing something

helpful to the local community. I didn't embark on this journey with the notion to save the world but I was proud of the work I did. I firmly believe that some of the equipment I repaired helped to diagnose a patient's illness or even saved someone's life.

Soon I will be stepping into the real world as a college graduate. There is so much more to learn in the dynamic world. I am hoping to start a career as a professional engineer. The skills and the technical experiences are crucial to this field, but I will be more aware of the influences that people will have on my growth and development as an engineer.

