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My Experience in Germany

Last October, the most interesting thing I heard was an opportunity to study in Germany. I read through the website and figured out what a great idea it was. I however put it aside until the last minute and applied on a whim. I got the email in March that I was accepted for an internship at Technische Universität Darmstadt to intern at the Theoretical Chemistry group. I was immediately filled with various emotions ranging from happiness to nervousness. Happy because I will finally get a chance to gain experience in a field that I might eventually choose, but also nervous because I hadn't lived alone for 5 years. It was hard for me to concentrate in school the spring semester because I was excited to begin my adventure.

I turned 21 on May 13th 2008; I packed my last minute luggage since I tend to procrastinate. I travelled out of Houston, Tx on May 14th. I got to Frankfurt train station an hour later than my arrival time. Jet lagged after traveling for about 10 hours, I retrieved my luggage and proceeded to locate my PhD student. We took a train from Frankfurt airport to the Frankfurt main station and from there took a train to Darmstadt Hbf. After checking into my room, I went to the University to meet the group and send an email to my friends and family on my safe arrival. I officially started my research on the 20th of May and subsequently met with the head of the group to discuss what I would be working on.

The few research I had worked on before my summer internship was at my school. Apart from the lack of funding and lack of equipment, there isn't a real direction to where the research was supposed to end. There was a great balance between structure and flexibility of the research. We had a structure of what I wanted to work on which was to get a basic idea of molecular dynamics simulation since 3 months wasn't an adequate time to complete a true molecular dynamics simulation. We were also given a flexibility to determine what pace we wanted the research to follow. My overall impression of research in Germany is that it's a must for any true scientist. There is funding available

and diverse interest in true research. Anything you are interested in could be found if you look hard enough.

My internship this past summer was in Darmstadt which is a city close to Frankfurt; at least that's how I described it to people. I studied at the Litchweise campus of Technische Universitaet Darmstadt. I was lucky enough to live at a walking distance from the campus so I was able to appreciate the beauty of the campus. I spent most of my time with the Theoretical Chemistry group and from what I could learn about the higher education system in Germany, it's as laid back as being in a university can be. I admire that students spend 5yrs and graduate with both a Bachelors and a Masters degree unlike in the United States where you can spend over 5yrs trying to obtain a Bachelors degree. Since there are little to no fees that are required, its really to the advantage of the students.

The most important part of my research was the results we were able to obtain. We were able to apply molecular dynamics simulation to 200 4-Fluorobenzaldehyde and from our results we were able to calculate the diffusion coefficient, isothermal compressibility and thermal expansion. It was also interesting to learn about the usefulness of simulation and its applicability in daily life. Even though most of the time is spent waiting for a program to run, the benefit of that is I got to catch up on reading and researching on my project.

A typical day for me was to get up around 8:30am. I leave my place around 9:00am and get to the university at about 9:20 am. I check on my programs that were running the day before or start running new programs. That continues till 12:00 hr which is lunch time at the Mensa. At 12:00 hr we go for lunch as a group and that lasts about an hour. Then its back to work until 15:00 hr for tea. This last about 30 minutes to an hour, we sit together, talk and drink tea, take a break from computing. Depends on how much work I get done in a day, I leave work from around 18:00 – 20:00 hr. Repeat the same thing the next day. On Thursdays, we have group seminar where each member of the group gets to present their research to the group, past or present research.

One of the academic highlights during my stay was learning a new programming language and being able to use it successfully under three months. I had some programming experience and absolutely no molecular dynamics simulation experience. I

credit my PhD student and the group members in helping me to understand what exactly I was supposed to do. We were also able to simulate successfully, obtain results and our work might get published someday. One of my personal achievements is being able to survive in a foreign country without knowing the language for 3 months. Another one was my day trip to Berlin, alone and being able to figure things out on my own.

I had little to no true knowledge of Germany since I grew up in Africa. I went to Germany with an open mind and willing to immerse myself in the culture and get to know people and not only respect but also maybe learn about the culture. I find myself after 3 months not wanting to leave Germany because I fell in love with the country as a whole. One of the many things I was able to appreciate in Germany was the laid back lifestyle compared to the United States where everything is on the go. I have plans of visiting and maybe even living in Germany in the near future. I was able to learn the language a little while I was there and the food might get a little time to get used to but in the long run, Germany or Europe as a whole is the place to be, not only as a scientist but also as a person. The DAAD gave me the best birthday present I could have ever received!