

Internship at the University of Michigan

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1. Research in Prof. Ronald G. Larson group

I had an opportunity to work at Prof. Ronald G. Larson group of the University of Michigan from July 2nd to August 31st 2018. During my stay there, I really enjoyed my work there although I had a lot of difficulties.

1.1. How did I decide Prof. Ronald G. Larson group?

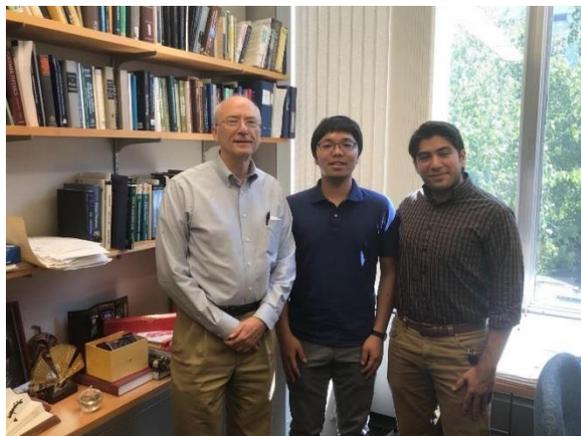
Since I would like to be a researcher who can be active in the world, I was very interested in working foreign countries. In such a situation, when I was a first-year Ph. D student, I had a chance to take part in a meeting of American Physical Society held at Los Angeles. There I could fortunately meet Prof. Ronald G. Larson who is one of the most famous researchers in my research field. After the meeting, I made a contact with him via e-mail and he kindly permitted me to join his group.



Pic. 1. North Campus of the University of Michigan.

1.2. Daily Research

I am working on polymer rheology as my Ph. D research. In Prof. Larson's group, there are a lot of research topics related to soft matter physics including polymer rheology. Therefore, Prof. Larson's group was an ideal place for me to improve my skills. During my stay, I was working on developing a new model that can capture dynamics of entangled wormlike micelles with a Ph. D student of Prof. Larson's group (Pic. 1, right). Since this topic was completely new for me, my work in Michigan started with reading papers related to rheology of entangled wormlike micelles. After understanding basic features of rheology of entangled wormlike micelles, I started to make a model for capturing dynamics of wormlike micelles. At the end of my stay, I could complete a prototype of the model. This was an exciting experience for me.



Pic. 2. A picture with Prof. Larson (left) and my colleague (right)

The office of Prof. Larson's group is clean and well organized. Therefore I was able to work comfortably. Moreover, people in Prof. Larson's group can come to the office

anytime they would like to because working time of group members is so flexible. I think that this flexible working style is different from Japanese one and this style may be one of the reasons for good work.

As for students of the University of Michigan, I was surprised at the diversity of nationalities. There are a lot of Ph. D students from Asian countries such as China, Korea, Iran and so on (actually, my colleague was Iranian). Unfortunately, I heard that there were only few students from Japan. In such an environment, I could talk with students from various countries and learn various cultures including religion and politics.

2. Daily Life in Ann Arbor, Michigan

University of Michigan is located at Ann Arbor. Since Ann Arbor is a quiet and beautiful city surrounded by nature, I could concentrate on my research well. In Ann Arbor, I was surprised that the town was full of school logos of the University of Michigan. Many people wear T-shirts with the school logos, and they support the college football team of the University of Michigan. During football season, there are football games at the Michigan Stadium. Michigan Stadium (Pic. 3) is the biggest stadium with a capacity of 100,000 people! Unfortunately I could not watch football games at this stadium, but I was able to see a part of American culture.



Pic. 3. Michigan Stadium in Ann Arbor.

During my stay, the most interesting event for me was Independence Day (July 4th). In the downtown of Ann Arbor, a marathon competition was held on Independence Day (Pic. 4). People participating in the competition were disguised and running with national flags. The town was in a festival mood and a lot of fireworks were set off at night. Through this experience, I learned that Independence Day is a very important day for Americans.

3. Acknowledgement

Here, I would like to express my appreciation to Prof. Ronald. G. Larson for accepting my visit and also lab members for kind support. Moreover, I appreciate Mazume Research Encouragement Prize in Kyoto University for the financial support.



Pic. 4. A marathon competition on the Independence Day.