Findings through JUACEP in NCSU



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Affiliation at Nagoya University: Department of Aerospace Engineering, Graduate School of Engineering, Nagoya University
Participated program: Medium course 2025(Oct. 2025 ~ Mar 2026)
Research theme:
Advisor at the visiting university: Prof. Yeonjong Shin
Affiliation at visiting university: Department Mathematics, North Carolina State University

I had a great time in NCSU and Raleigh, North Carolina through stimulating research environment, a lot of kind people and so on. A lot of experiences during my 6-month journey were very wonderful and invaluable which I could not have if I were in Japan. Here, I would like to write down and share those experiences.

1. Research and Life in NCSU

Although my original major was aerospace engineering, I joined a mathematics laboratory to study AI. In the first few weeks, I had a very hard time studying mathematics and programming because I had not learned anything related to those fields. Thankfully, my professor and my lab mates understood my situation, and everything eventually went smoothly. They taught me how to conduct experiments, which papers I should read, and sometimes they took me out to eat. In addition, a lab mate showed me around the university and helped me sign up for the school gym. The gym, which was one of my favorite places, was very tidy and had all the necessary equipment. Thanks to their kind help, I had a worthwhile time without any problems.

2. North Carolina

You can easily make friends here. One snowy day, while I was walking home, I saw some guys sledding. One of them called out me asking, if I wanted to try. I joined their group and enjoyed sledding together. In America, there are many friendly and approachable people who are also understanding of different cultures.
Also, North Carolina is good place because you can buy Japanese food easily. One of my friends took me to H Mart which sells Asian food includes Japan. If you are craving Japanese food, you can usually find most things there.

3. Traveling

I took two trips during my stay in North Carolina. One was to Charlotte, the state's largest city and the other was to New York City. In Charlotte, I enjoyed visiting several art museums and was surprised by the many skyscrapers. However, I was surprised even more when I visited New York City because there were an incredible number of them. I enjoyed local cuisine and various tourist attractions. Although I spent a lot of money, traveling is worth it because it allows us to experience local culture and enjoy a unique, special time.







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Name: Mahiro Nagae
Affiliation at Nagoya University: Dept. Materials Process Engineering
Participated program: Medium-term course 2025



Research topic: Investigation of Au‐Au Bonding Conditions for Air-Bridge Thermophotovoltaic Devices
Advisor at visiting university: Prof. Andrej Lenert
Affiliation at visiting university: Dept. Chemical Engineering, University of Michigan

During my stay at the University of Michigan, I conducted research on Au–Au bonding for thermophotovoltaic devices in the Department of Chemical Engineering. I worked closely with my mentor and often discussed my experiments with lab members. The research environment was different from what I was used to in Japan, so it was a new experience for me. At first, discussing research in English was difficult, but I gradually became more comfortable with it.

Outside the laboratory, I joined the University of Michigan rugby club. Through practices and communication with local students, I made many friends and was able to experience American college life more closely.

Living in Ann Arbor was also a very enjoyable experience. I liked the atmosphere of the college town, American food and culture, and meeting people from many different backgrounds. I also enjoyed watching college sports and spending time with friends. These experiences helped me learn more about American culture and how diverse the U.S. is.

Before JUACEP, I sometimes felt nervous about living and communicating in a foreign environment because I was not very confident in my English. However, after spending several months in the U.S., I became much more comfortable talking with people from different backgrounds and adapting to a new environment. This experience also made me more interested in living or working abroad in the future.

JUACEP gave me many experiences that I could not have had in Japan. Through research and daily life in Michigan, I made many friends, became more confident, and broadened my perspective. My time at the University of Michigan became one of the most memorable experiences of my university life. If I have another opportunity to study or live abroad in the future, I would like to take it and try new things without hesitation.