

My Life in Ann Arbor through JUACEP

Name: **Motoki Yamada**

Affiliation at Nagoya Univ.: **Materials Science and Process Engineering**

Participated program: **Short course 2018**

Research theme: **Synthesis of MZPFe nanopowders to thin films as solid electrolytes by Processing Liquid-Feed Flame Spray Pyrolysis**

Advisor at the visiting university: **Prof. Richard M. Laine**

Affiliation at visiting university: **Materials Science and Engineering
University of Michigan**



The life in Ann Arbor, Michigan, was spectacular to me. Before arrival, I was worried whether I could live here all by myself because everything would be inexperienced there in the house and laboratory, of course, the city itself. However, contrary to my prediction, they were so helpful to me, bringing me the relief. In the laboratory, one PhD student, probably assigned in charge of me, taught me a lot about the procedure of experimental and the way to use the equipment's in the lab.

Therefore, although the research area was completely different from that in Japan, I could follow her directions, which led me the comprehension of the whole outlines of my experimental goal and lots about ceramics and its application. Regretfully, due to the short term of the stay, I found it difficult to take actions spontaneously in the laboratory.

As for the rental of the house to live in, I heard in advance that it would be difficult to contract the lease just for 2 months. So, I decided to use the application of Airbnb, a kind of private residential support service mainly functioning on the smartphone. As a result, it brought me the migration of the house in total 4 times. What I can say in common of those 4 houses is that the hosts welcomed me willingly, thus I could enjoy sharing the house space.

I also participated in some of the activities such as the pizza party, picnic, and boating held by international organizations, where I made some friends with foreigners. They are so curious about their research, so it impressed me a lot in terms of the motivation of work.

On the holidays, I went watching American football game with some JUACEP students, and baseball game with attendees of international circle. Needless to say, since these were the first experience for me to watch sports in other countries, I was so excited and mostly I can find them the most memorable events.

While living in Ann Arbor, I naturally learned to consider about my own countries compared to U.S. and found some meaningful differences between both countries. First, they in Ann Arbor frankly and willingly accepted foreigners. In Japan, I felt many Japanese hesitate to speak foreigners because possibly we are afraid of contacting with other cultures or speaking non-mother languages. When I faced some troubles and needed some helps, they in Ann Arbor gave me a hand even if they might feel difficult to understand what I was saying. I would not have lived without their helps in the scene of housing, living, and life in laboratory. I also found that most of the Asian people studying in University of Michigan are non-Japanese, most occupied by Chinese. Many of them I encountered are eagerly aiming to get the position such like PhD, rarely seen in Japan. Through these experiences, I should reconsider about my own future work.



To Enjoy Difficulties in U.S.

Name: Keiichi Okubo

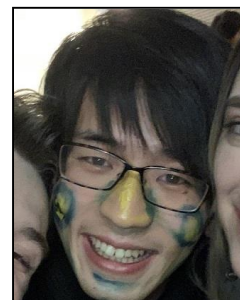
Affiliation at Nagoya University: Chemical Engineering

Participated program: Short course 2019 (From November to December)

Research theme: Synthesis of Mo₂C supported metal catalysts

Advisor at the visiting university: Prof. Saemin Choi

Affiliation at visiting university: Chemical Engineering, Michigan University



I came across many difficulties in U.S. But they all excited me and made me grow. Moreover they have transformed my life in U.S. into the enjoyable experience.

1. Sudden cancellation a month before going U.S. in searching for a teacher to accept me.

The teacher can't accept me because he had decided to move to other university.

2. Postponing the juacep program

Owing to 1, we had to postpone the juacep program. Thanks to many people's help, I could carry out the program. Thank you all.

3. Cancellation of Michigan University Sponsorship

Thanks to the mistakes in administrative procedures at the side of Michigan University, I could not enroll at the university.

4. Cold room

The room I stay in was too cold without an air conditioner, a suitable bed and a blanket. Therefore it was too cold to sleep enough.

5. Trouble with a rental car shop

I was told from the shop that we have no cars by overbooking. This incident will not happen in Japan.

6. Police!!!

We was involved in a small accident, and called the police.

7. Trouble at private accommodation (Airbnb)

The Chinese was using the room that we reserved and had locked the door, so we could not use the room.

Because I came across many difficulties, it was a happy two months.

Regular days do not remain in our memory. Engraving events into emotions, such as happiness, sadness, surprise, they will be a lifelong memory.

Courage is necessary to make a decision to study abroad. Please contact me if you need advice.

Lastly I will leave the sentence left in my impression. I was said that from a professor.

'Why DON'T Japanese study abroad?'



Findings through JUACEP

Name: Kotaro Takamure

Affiliation at Nagoya University:

Department of Mechanical Science and Engineering, Nagoya University

Participated program: Short course 2018

Research theme:

Synthetic jet characterization for differences in nozzle size and thickness of gasket

Advisor at the visiting university: Prof. Philippe Lavoie

Affiliation at visiting university:

Institute for Aerospace Studies, University of Toronto



First of all, I am very grateful to Professor Shaker Meguid who is a supervisor of JUACEP in UofT for much advice on Toronto's life and laboratory. I am also very grateful to Professor Philippe Lavoie for guiding me about research. He gave me an opportunity to conduct a very interesting and challenging research.

I visited University of Toronto for two months and worked at the Flow Control and Experimental Turbulence Laboratory in University of Toronto Institute for Aerospace Studies (UTIAS). I conducted a research on a synthetic jet characterization for differences in nozzle size and thickness of the gasket. I researched almost the same field as in Japan but the research theme was completely different. But, professor and students listened to my problems and they gave me some advice. , this research theme was very difficult for me, but I gained great confidence when I finished my research. I think it is a valuable experience for the future.

I stayed in Toronto by homestay. Homestay's owner gave me three meals a day. There were several people (Mexican, Turkish, and Korean) who came to learn languages, and they were all very kind. Sometimes, I enjoyed barbecuing and watching movies with homestay family. On holidays, I went to many places, for example, New York, Niagara Falls, and Rogers Center et al. Furthermore, I participated in language exchange and enjoyed exchanging information with Canadians. These times became valuable experiences that I could not experience in Japan.

Finally, I'd like to appreciate everyone who gave me the great opportunity to study in Toronto.



Findings through JUACEP

Name: Shuichi Higaki

Affiliation at Nagoya University: Mechanical Systems Engineering, Graduate School of Engineering

Participated program: Short course 2018

Research theme: Analytical and Numerical Modeling of High-Temperature Pressure Transducer

Advisor at the visiting university: Prof. Pierre Sullivan

Affiliation at visiting university (Dept & Univ):

Mechanical and Industrial Engineering, University of Toronto



The experience that I had in Toronto is extraordinarily valuable. I appreciate my supervisor Prof. Pierre Sullivan and JUACEP coordinator Professor Shaker A. Meguid. Also, I appreciate everyone who helped me. At first, I thought that it is hard to live in Toronto because of my English skill is poor. However, there was nothing to worry about it because the people who involved with me are so kindness; especially Professor Sullivan gave me enormous help. In such circumstances, I was helped by the many people and could live in Toronto. Thanks to that, I guess my English skill is a little bit improved.

In Toronto, I studied simulation using commercial software and modeling of the pressure transducer. My research in Japan is experiments not simulation. Therefore the study was new for me and I needed to study a lot about the theme. However, thanks to Prof. Sullivan and member of the laboratory, I could understand what the goal of the study is, what is needed and what I have to do. The duration was short to get great results. But the experience was good for me because I could learn the difference in the attitude to take research activities. I am sure of it lead me improving my research activities in Japan.

The life in Toronto except for research activities is also great. Toronto is so safety city and has good weather in summer. Also, Torontonians are tolerant about clumsy English because Toronto has many immigrants and, I think people who live in Toronto have the cooperative spirit, and the attitude trying to understand what someone wants to do. I went to many places during this program, for example, an amusement park, historical building and so on. I can't write it all of them, so I write some experience here. I love baseball and Toronto has an MLB team, Toronto Blue Jays. So I went to watch the game twice. It was so great. The atmosphere in Ball Park is different from Japan. Also, I played baseball in the local baseball club and so fun. The place where is deeply impressed is Niagara Falls. In there, I could see the spectacular nature that I can never see in Japan. Toronto is close by New York and I went there. NY is an exciting city and I had a great trip.

Finally, I would like to express appreciation again for Professor Sullivan, Professor Meguid, the member of the laboratory and JUACEP officer who gave me such excellent opportunity. Also, I appreciate the homestay family, agents, and friend I met in Toronto. They made me great experiences. Thank everyone very much.



Finding through JUACEP

Name: Takahiko Kosegaki

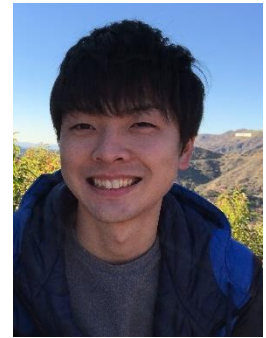
Affiliation at home country: Electric Engineering, Nagoya University

Participated program: Medium course: August 2018-January 2019

Research theme: Thermal Testing of the New Small Magnetic Sensor for SmallSAT

Advisor at the visiting university: Prof. Mark Moldwin

Affiliation at visiting university: Department of Climate and Space Science and Engineering, University of Michigan



The research in the US was basically tough because all resources, texts, papers and lessons, were written and spoken in English. However, the professor and the post doctor helped me whenever I was in some trouble. The research made me more interested in the space physics and the observatory. This is because the people in this department told about their research happily.

I visited a lot of states during the winter break. One of my recommendation is Florida because it was warm as we can get in the sea. I strongly recommend someone, who will stay in Ann Arbor, to visit a lot of states especially the eastern states where is far from Japan.

The college sports are also popular in Ann Arbor. People are excited to watch the game and send a cheer with waving the yellow and navy. You can enjoy to mimic to send a cheer, feel the passion of them and see the cheerleading performance even if you don't know well about the football.

I have a tip to live in the US. They use credit cards or debit cards every store and restaurant. I recommend you to have more than two credit cards or debit cards because they can be stopped due to the skimming. I had a credit card and a debit card but they both were stopped in six months. Also, you should check the receipt of cards frequently.

The life with many friends in the US was definitely exciting and interesting. I couldn't speak well in English, but some people in the US tried to understand that I meant and they told me something about the US, their country and something funny. This experience offered me some opportunities to make a lot of friends all over the world.



Great Time in Michigan

Name: Kotaro Hotta

Affiliation at Nagoya University:

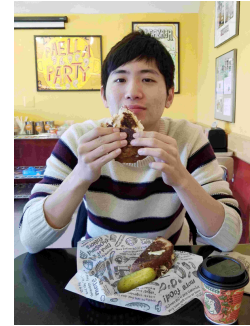
Participated program: Medium course 2018

Research theme:

Experimental Investigation of Primary Breakup Induced by High Mach Number Shock Wave

Advisor at the visiting university: Prof. Mirko Gamba

Affiliation at visiting university: University of Michigan, Aerospace Engineering



I have great experience at the University of Michigan. First of all, I would like to thank the staffs at JUACEP. This program gave me a lot of helps, such as Funding, Introduction of Professor and advise for housing. Thanks to these helps, I was able to kick-start my life in US.

I studied about the breakup process of the water in the supersonic crossflow under Professor Gamba. We had weekly meetings, which helped me to think of the next step and to make right decision. When I faced difficulties, he spent long time to discuss the solution with me, and finally I could fix it. I conducted the experimental tests with a PhD student. He was so kind to me that he always answered a bunch of questions about the facilities and physics. It was helpful in understanding the manner of operations and the phenomenon in the facilities. He and other laboratory members frequently took me to many places to see, for example, a new ramen shop in Detroit, a famous Sandwich shop and Apple hunting. I spent great time with them. On the last day of my stay, they held the farewell party for me at a fancy American restaurant. I felt happy to see so kind friends in US.

Ann Arbor is famous for the football team. It has the second largest stadium in the world. I totally go to see football game three time in my stay. I didn't know that it was so popular that over 100,000 people get together in that stadium. I was so excited because when our team get points, the all audience stand up and make joyous scream. I watched superball at my friend's house. Because it was close to Chinese New Year, we made dumplings, which is traditional Chinese meal made on the New Year. Actually, the game was boring, but I spent a great time.

I found a lot of friends and cultures in US. I would never find them if there were not JUACEP program.



Findings through JUACEP

Name: Koki Hojo

Affiliation at Nagoya University: Department of Micro-Nano Mechanical Science and Engineering

Participated program: Medium 2018

Research theme: Reactive dc magnetron sputtering of MoS₂ and MoS₂/hBN layers

Advisor at the visiting university: Prof. Suneel Kodambaka

Affiliation at visiting university: Department of Materials Science and Engineering, University of California, Los Angeles



I have three achievements through this program. The first one is obtaining enough skills to do academic research in overseas. For the first few months, I spent a hard time to make myself understood to my laboratory members and learn knowledge of new science field. However, I got used to discussing difficult, specialized issues about my research and do experiments without any help from others. My discussion skill was improved enough to talk with my professor about my experimental plan individually. Finally, I could produce new data enough to publish more than two papers, though I have to continue writing the paper after finishing this project. Anyway, those experiences and new

skills should be my advantages to working on any research works after I come back to Japan.

The second achievement is joining a sports club in overseas. I participated in UCLA triathlon team until I left LA. They hold 11 practices, consisting of swim, bike, run, and mixed session, per week. I spent a very fun time with team members through the training, though I could join only a few sessions a week because I was lazy in the early morning and busy in the evening. My favorite training was biking around Malibu mountains. Ocean view from PCH (Pacific Coast Highway) was really awesome. Most of the time after the bike session, we stopped by local café and enjoyed a relaxing time with a cup of coffee. In November, we had “Teamsgiving” party, which derives from a traditional family holiday, Thanksgiving, in the U.S. We brought cooked foods to a team member’s house and enjoyed them with Sake, which I brought to the party. I thank them to hold the event because I didn’t have any family member to celebrate the holiday with in LA. The day before I leave LA, they gave me a team T-shirts and a message card. I cannot help but thank the team members.



The final accomplishment is participating some competitive races in LA. For the period I stayed in the U.S., I took part in two triathlon races and one trail running race. It was challenging for me to join those races without any help but had an exciting time. Sometimes I went a wrong route and lost time because the number of staffs was not enough to guide all of the participants. It reminds me that races in Japan were very hospitable, comparing to those in the U.S. Surprisingly, I won all of the races in my age division (U25). Through those races, I could receive many medals. Literally, it is a good memory.

As you can see, I could learn and experience so many things through this program. I would like to thank all of the people who supported me.

A good tip on happy life in the US

Name: Hiroki Kogure

Affiliation at Nagoya University: Mechanical system engineering

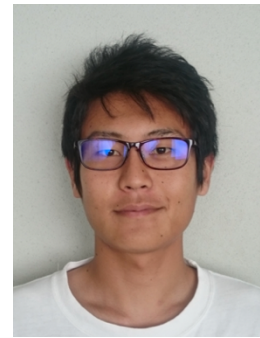
Participated program: Medium course 2018

Research theme:

Advisor at the visiting university: Prof. TC Tsao

Affiliation at visiting university:

Department of Mechanical and aerospace engineering,
University of California, Los Angeles



Many people believe, or try to believe the existence of difference between Japanese culture or personality of them and others' ones. And what is worse would be they really love to compare them. Through just 23 years of my life includes this foreign experience and discussion with foreign people, I temporary have following opinion, it totally depends on each individual. I have a cat, whose name is Leo, and there happen to have been two cats, whose names are Chuy and Gilby, in my second place to live in the US. Chuy has a more similar personality to Leo's one than Gilby's one. There is no way to tell if they speak Cat English or Cat Japanese, but it might be absolutely clear that it makes no sense to discuss about how different American cats and Japanese cats are. It must depend on each cat. At this point of view, when a Japanese man who is narrow-minded and arrogant and a American woman who kindly accepts me as a guest are compared, who on earth says Japanese people are polite and generous. You intelligent and thoughtful readers might want to think about your personality and self doctrine. One guy who serves obediently to those have more power would use those have less like a slave. One guy who has no confidence would act like a great leader once he is put in charge of. One guy seems to be nice would become an egoist in a tough situation. Personality varies with TPO and their mood. Hence, to generalize each people and define culture is like to grab the clouds because culture is just a collective body of individual. If you tried to understand foreign culture without recognition of colored spectacles, your prejudice would be stronger.

As described above, although the definition and recognition of personality are skeptical and vulnerable, it is really ignorant to determine who you are and to believe it is definitely right in just a limited environment and role. Getting out of that community might help. Let us say you have self esteem in some achievements on research or skill in your current lab with great help by many other people, it will be as useless as 100 dollars bill for washing machine because the way of coding, experimental devices, and even analytical approach must be different. Let us say you identify yourself as a generous person, it will be as painful as 10 dollars bill for Big Blue Bus because you would have less resources and you will get more treatment than you can give for other people. You will feel powerless. Let us say you think of yourself as a good listener, it will be as no use as penny and dime coins because you cannot convey your full empathy over the barrier of language — I deliberately avoid mentioning that the best listener talks nothing, just listens. The most acceptable coin and bill in daily life in the US are quarter coin and 1dollar bill by the way.

May I make a suggestion as useful as a Chase bank debit card. It is to get rid of prejudice on how you should be and how studying abroad should be. All you need is just to live like as if you have been living in the US and take a look around, you will find how beautiful sunrise, sunset, white beach, blue ocean, and green plants are. You will realize how warm your roommates, labmates, neighbors, and even people who live on street are. Get out of self-centered mindset or identity, which is not chronic but just temporal and to flow. This would help you with finding your new place or new role and living without social stress in a new environment. Furthermore, you will be stunned by how active and genius genuine yourself would be to find happiness. I heartily hope that many potential participants of JUACEP can think that they made a correct decision through their foreign experience. I am most grateful to JUACEP office for giving such a valuable opportunity to young ambitious students for many years and in the year to come.

Findings through JUACEP

Name: Ryo Tsunoda

Affiliation at Nagoya University: Biomechanics, Mechanical Engineering

Participated program: Long course 2019

Research theme: A computational study of cell growth and division as an energy-based soft packing problem using a diffuse interface framework

Advisor at the visiting university: Prof. Krishna Garikipati

Affiliation at visiting university: The computational physics group, UM



I got a lot of experiences through the JUACEP program at the University of Michigan. Especially I'm going to talk about these in researching and activities in some clubs.

I study a kind of the computer simulation, FEM (the Finite Elements Method) which is well-known if you are mechanical student although my specialized in Nagoya university is biomechanics. The reason why I decided to study FEM is to obtain the skills for my study in Japan. The purpose of my research is to find out the mechanism of embryo morphogenesis and I study it experimentally in Japan. But I am interested in the approach of the inverse problem, but since this is not my field of studies, I decided to join this laboratory. First of all, I needed to know the basic theories and examples of FEM so I had to take the classes with the other UM graduate students for a semester before I started the research. It greatly helped me to further understand my research and made me realize how hard the students study in the US. It was very unique for a Japanese student like me who has only studied in Japan and it was a great experience.

Life in the laboratory was similar to that in Japan. We usually have worked from 10am to 6pm every weekday and had the meetings for the reports twice a week. All of the students, staff members and professors were kind and helped me even if it was a slight thing.

With respect to my club activities, I had joined JSA (Japanese Students Association), Bridges (A Christian association that organizes events for international students), M-Run (Michigan Running club) and MMC (Michigan Muscle Club). I made a lot of friends in these associations and it is the best thing I got out of this exchange program and also helped to improve my English, although when I was with JSA friends, I talked to them in Japanese. I spent almost of my weekends drinking with JSA guys. Bridges invited me to a lot of events like Thanks giving party, Christmas party, the dinner for Christian and so on. I prefer speaking with them because they speak calmly and it was easier to understand. For my recreation, I had joined the running club during an entire fall semester and muscle club during a half of winter semester. The environment for recreation in Michigan is perfect. Basically, the campus is extremely large compared to Japanese universities but the recreation facilities is greater than I expected so I was satisfied with working out. Also, it improved my concentration for research. It means, in Michigan winter, the weather is cloudy almost every day and it made me sleepy during the day time and I couldn't proceed my research enough. But I joined MMC and it made my life better. We trained from 7am at the gym every day and it woke me up without sunshine. I want to recommend working out during the mornings in Michigan winter if you have plan to come to Michigan.

I'm sure that what I got in this program (research, English, friends and muscle) should help my career in my future. Finally, I appreciate everyone I met in the US. Thank you.



Findings through JUACEP

Name: Kimihiko Sugiura

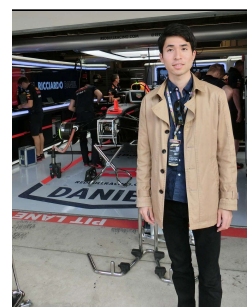
Affiliation at Nagoya University: Mechanical System Engineering

Participated program: Long course 2019

Research theme: Sensitivity Analysis of Five-Link Suspension

Advisor at the visiting university: Prof. Greg Hulbert

Affiliation at visiting university: Mechanical Engineering, University of Michigan



Academic life

I chose to come to the University of Michigan (UM) because I wanted to study more intensively in the field of automotive engineering research, and there are more research opportunities here. This is because there are many automobile companies near the university. My research was about automotive suspensions, which are important to certain basic functions of a vehicle: running, stopping, turning, etc.

When I first arrived at the UM, I was confused by how working with a research team was different in the U.S. in comparison to Japan. I was specifically confused about when it was appropriate for me to take initiative with a project and when I should wait for directions or permission from my professor. I was not sure how much initiative my professor wanted me to take. I determined the proper balance by observing other students around me, and I frequently met with the professor. By doing so, I learned to make suggestions for how to proceed in a certain project because I found that taking initiative is highly esteemed in my laboratory. At first, having to make my own decisions was difficult because I was accustomed to getting explicit instructions from my Japanese professors. However, I used several methods to overcome this challenge. For example, I would ask for advice from a researcher at another laboratory doing related research. As a result, I was able to determine an objective for my research with the aid of my professor and other researchers.

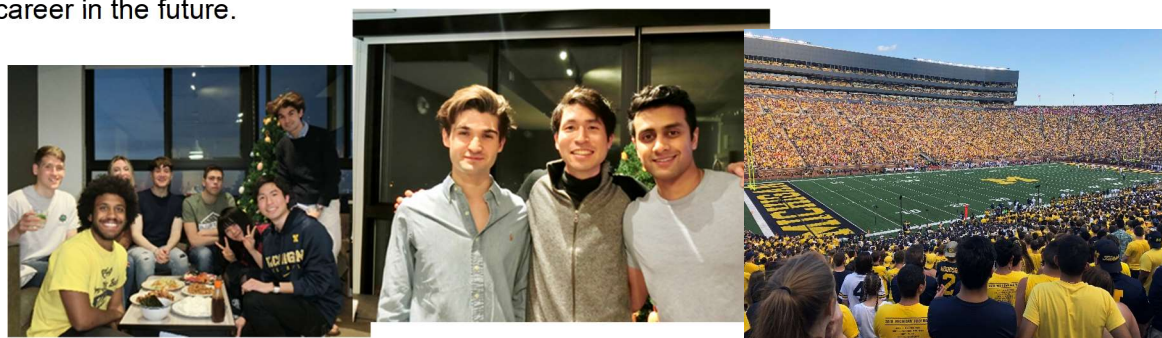
In addition, I have had many opportunities to learn about new things. For example, I experienced the difference in corporate culture between the U.S. and Japan through interacting with an automotive engineer. In February of 2019, the U.S.-Japan Automotive Conference was held here at the UM. I was also able to interact with a former member of the U.S. House of Representatives and with an executive from a Japanese automobile company.

I have made many new connections through my time studying abroad, and I am sure that the connections will be very helpful in the future.

Private life

I lived in an apartment with two roommates (American and German). We had never met before, but we became friends quickly because all of us were very outgoing. Being able to speak with them in an informal setting was also very helpful for me when my research was not going well. This study abroad experience would have been very different if I hadn't had such amazing roommates.

Finally, I had the chance to go to Texas for a weekend to watch a Formula 1 race. I was fortunate because I was able to interact with a Japanese staff member from the Honda F1 team who was a Nagoya University alumnus. I was so glad to meet someone from my same university who is leading a very successful life overseas. Meeting him encouraged me to pursue a similar, globally oriented career in the future.



Findings through JUACEP

Name: Yuta UJiie

Affiliation at Nagoya University: Mechanical Engineering

Participated program: Long course 2019

Research theme: evaluation of the UCLA Low-PRofile Direct shear sensor for air Flows in Wind Tunnel

Advisor at the visiting university: Prof. CJ.Kim

Affiliation at visiting university: Mechanical and Aerospace Engineering, UCLA



This is about my exiting days in LA.

I researched the shear stress sensor of airflow. I studied it in Japan too. But their mechanisms are different and have different disadvantages and advantage. Using and studying both sensors makes my studies better. This is the reason why I decided to research this theme in UCLA. In my research, there are many troubles and many things need to study. My professor and lab members help and advise me a lot. I appreciate their cooperation and kindness. I have eaten lunch with anyone in Lab everyday. It makes my English level improved and I learned a lot of things, for an examples culture of U.S. It is the exiting and enjoyable time.

The life in LA is livable and enjoyable. The weather is ideal, not hot in the summer, not cold in the winter and not humid like Japan. On the weekend, I usually go to Santa Monica beach which is about 30min by bus and surfing and swim in the summer, reading a book and listening music in the winter. The most beautiful scenery I think is the sunset of Santa Monica. I went there and see it, when I was tired and sad. But everything is not good in LA. The biggest program is that everything is very expensive. The rent is over \$1000, eating out is over \$10, medical expense is marvelous price. I think living in U.S. is harder than in Japan. I have been to many cities in U.S, Las Vegas, San Diego, New York, Boston, Washington D.C, Seattle. It is great experience and I feel the difference of the city ambience.

In this 8months, everything is not good. There are many painful and hard things and want to go back Japan many times. I can get over difficulties thanks to the kindness many people, friends and host family. They are my treasure. is the biggest challenge in my life. It is easy way that not changing and challenging anything. But changing and challenging make us grow. This experience makes me great grow.

To improve is to change -Winston Churchill

