

## Findings through JUACEP

**Name:** Rika Valluri

**Affiliation at home country:**

**Participated program:** Summer Course 2025



**Research theme:**

**Advisor at Nagoya Univ:** Prof. Kenji Fukuzawa and Asst. Prof Azuma

**Affiliation at Nagoya Univ.:** Micro-Nano Engineering

Participating in the JUACEP program was a transformative experience that allowed me to immerse myself in both advanced research and cultural exchange. On the academic side, the program gave me the opportunity to collaborate with leading professors and students in Japan on projects that bridged my interests in robotics, space systems, and sustainable technologies. The exposure to different methodologies and perspectives expanded the way I approach problem-solving and strengthened my ability to work in diverse, interdisciplinary teams.

Equally valuable was the cultural dimension—living and studying in Japan provided me with a deeper appreciation of how scientific progress is closely tied to cultural values such as precision, respect for process, and long-term vision. Engaging with students from multiple countries fostered friendships and networks that will last beyond the program.

Overall, JUACEP not only enriched my technical expertise but also broadened my worldview, reinforcing my commitment to pursue research and collaboration that has global impact.

## Findings through JUACEP

**Name:** Ruben Fonseca

**Affiliation at home country:** University of Michigan, Robotics

**Participated program:** JUACEP 2025

**Research theme:** Hierarchical Sim2Real RL Control for High-Speed

Autonomous Dynamic Control

**Advisor at Nagoya Univ:** Prof. Suzuki

**Affiliation at Nagoya Univ.:** Mechanical Engineering



The JUACEP program provided me with an incredible opportunity to grow both academically and personally while immersing myself in the cultural beauty of Japan. Given that this was my first study abroad experience, I really didn't know what to expect, yet the program excelled and delivered a truly unforgettable, and life-changing experience that I hope to carry with me in life. On the academic side, I was exposed to practical and applied reinforcement learning, learned how to design reward functions, train policies, and become familiar with the RL design process. In addition, I was able to develop my skills with the Robot Operating System (ROS 1), further develop my skills with Python, PyTorch, and NVIDIA's Isaac Sim/Lab training software. This was my first ever RL-based project, and served as an excellent introduction into the field, not only providing an enriching and engaging project that tested and reinforced my prior knowledge but also gave me the chance to contribute to research that will continue once I leave and eventually make its way into robotics competitions (Roboracer).

Outside of academics, this program provided plenty of opportunities to explore Japan and Nagoya, whether that be trying new restaurants, exploring the nightlife of countless cities, or even just trying the next new thing from the convenience store. Given the nature of this program, I was able to live both the life of a tourist on the weekends, travelling to neighboring regions and cities, and as a resident during the weekdays, commuting to and from lab, putting in effort at work, and getting used to the Japanese style of living. This mixed perspective I lived truly gave me a deep appreciation of life in Japan, understanding the differences between simply travelling and touring the country, and learning to live as a working resident. There are many differences between American life and Japanese life, and I am grateful to have obtained this perspective – a perspective that allows me to reflect on my own way of life up until now and possibly adopting aspects from my time in Japan as I continue forward.

On the topic of friendships, this program has also given me the opportunity to meet so many people that I wouldn't have had I not participated in this program. Learning and becoming close with not only my fellow program cohort, but also Japanese natives, has truly opened my world to ways of living around the US, world, and in Japan. The hospitality, openness, kindness, and culture of respect that I was graciously given by my Japanese peers and mentors truly warmed my heart, and the countless experiences, outings, and memories we made this summer have deeply moved me. I am forever grateful for my time in Nagoya, and I hope to visit this special country again in the near future.

## Findings through JUACEP

**Name:** Shaandili Vajpai

**Affiliation at home country:** Mechanical Engineering,  
University of Michigan

**Participated program:** Summer Course 2025

**Research theme:** Understanding Thermal Diffusivity Distribution in CFRP  
Composites via Lock-In Thermography and Structural Analysis

**Advisor at Nagoya Univ:** Prof. Hosei Nagano

**Affiliation at Nagoya Univ.:** Mechanical Engineering



Coming to Japan was a transformative experience. I was already enamored with the country's culture and customs, but to actually experience it was another thing entirely. I think, in my mind, I had built it up as a perfect place where everyone followed all the rules all the time and you would get into trouble for not perfectly adhering to social norms. However, I was pleasantly surprised – everyone I met was warm, understanding, and helpful. My lab members, TA, and supervisors always patiently explained nuances of Japanese culture, and would always gently correct or help my Japanese along. Whenever a lab member brought *o-miyage*, they would explain its origins and offer me some. They even took me on their annual excursion, where I had the opportunity to sit in on a company business pitch, try out an onsen, and have some Japanese barbecue! They always made the effort to include me, and each of us tried our best to bridge communication gaps.

Working through language barriers and communication gaps over the summer has made me more understanding and patient. Experiencing firsthand how a lack of fluency in the spoken professional language (Japanese) made me more cognizant of others' linguistic struggles. I feel like the JUACEP experience will help me work much better with diverse teams from now on. The technology at my lab was also extremely cutting edge, which was really cool and impressive. I was able to study a field that was completely new to me from a lab that leads research in it. I think this has added a lot of diversity to my technical skillset as well.

I also loved the workshops conducted and the excursions. Most of what we did, I hadn't had the opportunity to do during my regular study programs. I also loved being able to learn from experts, such as the engineers at Nippon Steel and Prof Tanaka.

I think what I enjoyed the most was the opportunity to travel to and explore different areas of the country, while also being able to discuss what I saw and the day-to-day aspects of Japanese life with my lab-mates. I feel like as a tourist, I never would have had the chance to have such a comprehensive experience and gain the understanding I have now about the culture without the ability to have daily conversations with people at the university. This helped me also understand regional and cultural differences in Japan, and how these things shaped social interactions.

Coming to Japan also allowed me to participate in its culture. Participating in the tanabata festival celebrations of various student organizations, the bon-odori dance with my lab mates, and visiting various shrines and temples helped me better understand the Japanese media (movies, anime, songs) I was engaging with on a regular basis. Of course, I loved the food too. I could begin to understand how certain cultural practices had shaped certain aspects of the public consciousness, and I am extremely grateful for the opportunity to pursue a deeper connection with a culture I already admired. The

experience has  
made me  
excited to  
explore more of  
Japan, and I am  
eager to visit  
again as soon  
as possible.



## Findings through JUACEP: A Summer Spent in the Land of the Rising Sun

**Name: Skyler Do**

**Affiliation at home country: Industrial and Systems Engineering,**

**University of Michigan Ann Arbor**

**Participated program: Summer Course 2025**

**Research theme: Cube Nanosatellite Positional Functionality Using**

**Drone Swarm**

**Advisor at Nagoya Univ: Prof. Shigeru Sunada**

**Affiliation at Nagoya Univ.: Aerospace Engineering, Nagoya University**



Life in Japan was what you make of it. If you are introverted, things are set up so that it's easy to keep your head down and just do your thing. On the other end of the spectrum, every day could be something new and exciting, if you took the time to plan it out and actively try things. I really enjoyed my research at Nagoya University. I was given an open ended problem, and given free reign to solve it. So long as I could justify and explain my choices and decisions, my Professors were on board. They gave me a lot of freedom, and in turn that gave me a strong sense of ownership over my work. I enjoyed the lectures and excursions a lot. They were well planned, organized, and executed.

Prior to coming to Japan, I did not know that Nagoya University is such a reputable school. In my time here, I have come to know amazing faculty and students, and see many of the school's labs and resources up close. I was so impressed, I am going to tell my younger brother to consider applying to NU. I also took the chance to join a few martial arts clubs at NU. The sumo, judo, kendo, and kempo clubs were all very very welcoming. They even wanted me to participate in tournaments! If the program was a bit longer, that would have been great.

I also took this opportunity to enjoy and explore Japan to the fullest. Travelling to other cities to see shrines and museums, try food, and do activities. In particular I enjoyed the crafting activities the most. Doing Japanese ceramics, making jewelry, and of course, travelling to Seki for a weekend to forge my own katana. These are experiences I will treasure forever.

The JUACEP program has opened new doors for me in Japan. A place I only had a tenuous connection to before is now filled with friends and professional contacts. While I am not committed to going to Japan, the possibility remains tantalizingly open. Given the right circumstances, I would love to go again.



## Findings through JUACEP

**Name:** Erik St.Clair

**Affiliation at home country (Dept & Univ):** Department of Mechanical and Aerospace Engineering, North Carolina State University

**Participated program:** Summer Course 2025

**Research theme:** Glider Control Utilizing Motion Capture and UFSC

**Advisor at Nagoya Univ:** Prof. Susumu Hara

**Affiliation at Nagoya Univ. (Dept.):** Department of Aerospace Engineering, Graduate School of Engineering, Nagoya University



My experience with the JUACEP program was very positive. It was an amazing experience to participate in research in another country. It was fascinating to see how work flows differently in other parts of the world. All of the people at my lab were very welcoming and helpful. They showed me around Nagoya, and we made some great memories. Nagoya University has a beautiful campus and the student life in the area is very cool! I was able to participate in many student events and summer festivals. I made many new friends and learned a lot about life in Japan. The other participants in the program were all very nice and we went on many trips around Japan together. The biggest shock to me was the smaller food portion sizes. The best part about life in Japan for me was the always punctual and extensive network of public transportation. It was amazing to be able to take a train to pretty much anywhere that I wanted to go.

During my trip I also had free time to explore Japan. I was able to visit Tokyo, Fuji, Kyoto, Takayama, Toyama, Osaka, Hiroshima, Ise, and of course Nagoya. Each city was unique and had its own charm. I loved trying all of the regional food specialties and seeing all of the incredible sights. My favorite site that I visited was Itsukushima. It can be seen in my pictures as the Tori gate that appears to be floating. It is close to Hiroshima, and you have to take a ferry to get there. It was very cool to see how the appearance of the shrine changes with the tide.

This program was a great experience, and I believe that it will be beneficial for my future. It not only gave me an amazing life experience and many memories, but also valuable research skills that I can apply to my career. I learned about a new control system and learned to use new software. Apart from that, it also provided me with multiple connections to very friendly and intelligent people. It was an incredible experience, and I am so grateful that I was able to participate!



## JUACEP Experience Reflection

**Name:** Wei Wu

**Affiliation at home country:** Department of Mechanical Engineering, Tandon School of Engineering, New York University

**Participated program:** Summer Course 2025

**Research theme:** ENHANCED FABRIC ROBOTIC GLOVES USING PNEUMATIC ARTIFICIAL MUSCLES

**Advisor at Nagoya Univ:** Prof. Tadayoshi Aoyama

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



Through the JUACEP exchange at Nagoya University (Cyber Robotics Laboratory, Prof. Tadayoshi Aoyama; TA Shouta Kanamori), I spent the summer embedded in a research group while experiencing everyday life in Nagoya. The program sharpened my technical skills, broadened my cultural awareness, and clarified my future direction in soft robotics.

I worked on an enhanced fabric robotic glove using pneumatic artificial muscles to support home-based finger rehabilitation. I implemented multi-mode control (all-finger, single-finger, and voice commands), ran perceptual tests, and documented usability feedback (fit, donning, force output, and acoustic interference). Weekly meetings with Prof. Aoyama and hands-on troubleshooting with lab mates taught me disciplined experiment design, careful data logging, and hardware-software integration under time constraints.

JUACEP confirmed my commitment to soft robotics and rehabilitation technology and strengthened my interest in graduate research with international collaboration. I leave with sharper lab habits, a clearer research agenda, and mentors I can consult as I apply for RA/PhD roles. Most importantly, I learned how to work effectively across languages and disciplines—an advantage for any global engineering career.

## Findings through JUACEP

**Name: Zizhuo Wang**

**Affiliation at home country:** Tandon school of engineering, NYU

**Participated program:** Summer Course 2025



**Research theme:** Wang Wall Cooling Effect on Supersonic Shockwave Boundary Layer Interaction with Ramp Model

**Advisor at Nagoya Univ:** Prof. Kinefuchi

**Affiliation at Nagoya Univ.:** Mechanical and aerospace engineering

Participating in the JUACEP program at Nagoya University was an eye-opening and rewarding experience, both academically and culturally. My research project focused on Shockwave Boundary Layer Interaction (SWBLI), which allowed me to explore advanced fluid dynamics concepts while using cutting-edge facilities. The lab environment was welcoming and highly collaborative — professors and lab mates were approachable, always willing to answer questions, and treated me as an equal member of the team.

One aspect that impressed me most was the work-life balance in the lab. There were no strict rules for arrival or departure times, which fostered a sense of autonomy and trust. Despite this flexibility, everyone maintained a high level of professionalism and productivity. I also learned that work-life balance in Japanese companies is improving, which reflects a broader cultural shift toward healthier work habits.

Outside the lab, life in Nagoya and Japan left a lasting impression. The cleanliness of the streets, the politeness of the people, and the efficiency and orderliness of public transportation — even during rush hours — were truly remarkable. The city offered a perfect mix of modern amenities and traditional culture, and excursions organized by the program gave me opportunities to explore Japan beyond the university setting.

The cultural differences were subtle but meaningful. From the quiet courtesy in daily interactions to the emphasis on harmony in group settings, I found myself reflecting on how cultural values influence work and research environments. This experience not only enhanced my technical skills but also broadened my perspective on collaboration and communication in an international context.

Looking ahead, the JUACEP program has had a profound impact on my career goals. It solidified my interest in pursuing a PhD in Japan and motivated me to engage in more international collaborations in the future. The professional and personal growth I experienced in Japan will continue to guide my path as a researcher.



## Findings through JUACEP

**Name:** Ali Entezari

**Affiliation at home country:** Department of Computer and Software Engineering, Polytechnique Montréal

**Participated program:** Summer Course 2025

**Research theme:** Development of a Computer Vision System for Automatic Customer Reaction Detection in Teleoperated Social Robots

**Advisor at Nagoya Univ:** Prof. Tomonori Kubota

**Affiliation at Nagoya Univ.:** Graduate School of Engineering



My JUACEP experience at Nagoya University was both academically enriching and personally unforgettable. I worked on developing a computer vision system to detect customer reactions in teleoperated social robots. The supportive lab environment and guidance from my supervisors helped me gain valuable research skills and new perspectives on hybrid AI systems.

Outside the lab, I had the chance to travel with friends I met through the program. We visited Expo 2025 in Osaka, explored Kyoto, Tokyo, and Nara, enjoyed fireworks in Okazaki, spent time around Sakae in Nagoya, and took memorable trips to Fujikawaguchiko, Fuji-Q, Ise, and Toba. Each trip revealed another side of Japan, from its serene temples to its modern attractions.

Daily life also brought cultural surprises—walking on the left side, sorting waste carefully, and even paying bills at convenience stores. These small but memorable differences became part of the adventure and deepened my appreciation for Japanese culture.

Looking back, JUACEP gave me more than just academic progress. It expanded my cultural awareness, adaptability, and friendships that I will carry with me far beyond this summer.

## Findings through JUACEP

**Name:** Dan S. Altman

**Affiliation at home country (Dept & Univ):** Department of Electrical and Computer Engineering: Robotics, University of Michigan-Ann Arbor

**Participated program:** Summer Course 2025

**Research theme:** Micromanipulation Systems

**Advisor at Nagoya Univ:** Prof. T. Aoyama

**Affiliation at Nagoya Univ. (Dept.):** Mechanical Systems Engineering



My time in Japan has been full of adventures and memorable experiences. If someone were to ask me to define it in one sentence, it would be very difficult. When I first arrived, I worried about my ability to interact and function in daily life given the communication barriers, but that quickly faded away. Almost immediately, I heard the familiar J-pop I enjoy listening to on my own, and I went for some sushi with my friends. That was the beginning of feeling at home here.

The Cyber Robotics Lab, supervised by Prof. T. Aoyama, has been a welcoming and inclusive atmosphere. Right from the start, they organized a "Welcome Party" for me and the other study abroad student who had recently joined the lab. This event gave me the chance to talk with and get to know my lab mates better. Without their kindness and support, the countless hours and nights spent on research would have been much more difficult. Over time, the lab has come to feel close to a family to me.

Before joining the Cyber Robotics Lab, I had little experience in the world of micromanipulation systems, as my work at the University of Michigan mainly centered on bioinspired robotics. I was eager to explore the field of microscale robotic operations. I hope to continue working on it even after returning to the University of Michigan, if possible.

Beyond research, I have also explored several cities in Japan: Tokyo, Nagoya, Osaka, and Kyoto. Each has its own distinct atmosphere and character. Before coming to Nagoya, I had known it mainly as an automotive hub, but after living here, I came to enjoy its calm and peaceful environment. My experiences in Tokyo reflected the image of a bustling, advanced metropolis. I visited shrines and shopping streets, and as someone who has watched a considerable amount of anime, it was exciting to see many places I had only known from shows brought to reality. In Osaka, some of my most memorable experiences were visiting famous sites such as Dotonbori and local shrines. In Kyoto, I had the chance to explore places including Uji, where I enjoyed their wonderful matcha.

I sincerely hope to continue experiencing Japan in the future, as there is still so much to explore and discover. The memories I have made and the people I have met here have been invaluable to both my personal growth and my career. Based on these experiences, I have developed a growing interest in human-robot interaction in micromanipulation.



## Findings through JUACEP

**Name: Amir Sawires**

**Affiliation at home country (Dept & Univ): Polytechnique Montréal**

**Participated program: Summer Course 2025**

**Research theme:** Treatment of Perfluorooctanoic Acid (PFOA)

Using Plasma in liquid

**Advisor at Nagoya Univ:** Prof. K. Ishikawa

**Affiliation at Nagoya Univ. (Dept.):** Department of Electronics, Graduate School of Engineering



The JUACEP program gave me the incredible opportunity to pursue a research internship at Nagoya University during the summer of 2025. This experience was truly amazing. Before the program, I had been conducting research in Montréal for one year, and I was very curious to see how such an environment would be elsewhere—Japan had been on my radar for a long time. It did not disappoint. I was able to discover a new lab with many wonderful people, and it was truly an enriching experience. My sincere thanks go to Prof. Ishikawa, Prof. Inoue, Prof. Miron, and my TA Fujita-san for their support throughout my stay in the lab.

During my stay, I had the chance to visit many new places across the country, such as Osaka, Kyoto, and of course Tokyo. I tried many different kinds of food, took part in several cultural activities with the group, watched the fireworks, and even managed to climb Mount Fuji. The climb was really hard, but it was truly one of the most beautiful sights I've ever experienced, and I'm really happy to have seen it. Japanese culture was very different from Montréal's, but it was fascinating to experience and immerse myself in it throughout the summer. I have always been interested in Japanese culture, and I was truly curious to discover more about it.



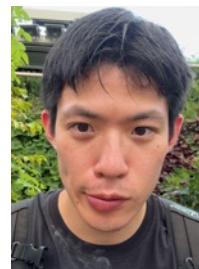
Living in Nagoya—and in Japan overall—for those ten weeks was truly a wonderful experience, and I will cherish those memories forever. The time I spent with the other participants in the program was amazing, and the activities we took part in will always remain precious memories. I am deeply grateful to have been part of this program; this experience has truly changed me.

## Findings through JUACEP

**Name:** CHEN Chih-Yueh

**Affiliation at home country:** Mechanical Engineering NYU

**Participated program:** Summer Course 2025



**Research theme:** DLC Coating with Lubricant Oil Behaviors

**Advisor at Nagoya Univ:** Prof. Umehara & Prof. Tokoroyama

**Affiliation at Nagoya Univ.:** Mechanical Engineering

The JUACEP program was one of the best experiences of my life. I had the opportunity to live in Japan, work with Japanese students, and immerse myself in Japanese culture for two and a half months. Japan has always been my favorite country, and this program allowed me to experience it in a deeply meaningful way.

The research experience at Nagoya University was truly unique and different from what I was used to at NYU Tandon. At NYU, the focus tends to be more on lectures and acquiring theoretical knowledge. In contrast, Nagoya University focuses on hands-on research and experiments. I found this approach to be more engaging and effective, as it allows students to become more specialized and experienced in a specific field which is something I personally prefer. Even though my research topic was entirely new to me, both my TA and Professor Tokoroyama were incredibly kind and supportive. They answered my questions and guided me through every step of the project. I worked on several hands-on experiments, which not only taught me a lot but also made the research process fun and rewarding. If you find a research topic or lab at Nagoya University that interests you, I highly recommend applying to JUACEP.

Outside of research, I had the chance to travel around Japan and explore different regions. One of the most memorable trips was to Hiroshima — a city that carries deep historical significance due to the atomic bomb. Visiting the Peace Memorial Park and Museum helped me better understand Japan's past and resilience after the war. From Nagoya, which is centrally located, I could easily travel to many major cities by train. As a rock climbing enthusiast, I was especially excited to visit different climbing gyms across Japan. The country has a strong climbing culture, and I enjoyed training in various gyms and meeting local climbers.

Overall, the JUACEP program gave me not only valuable academic experience but also unforgettable cultural and personal growth. I really appreciate everyone that I met in the program for supporting me, and making the time become special and unique. This experience has deepened my appreciation for Japanese research culture and strengthened my interest in pursuing future international collaboration.



## Findings through JUACEP

**Name:** Etienne Leclerc

**Affiliation at home country:** Mechanical Engineering, Polytechnique Montréal

**Participated program:** Summer Course 2025

**Research theme:** Development of an Experimental Test Rig for Investigating the Negative Damping Phenomenon in Offshore Wind Turbines

**Advisor at Nagoya Univ:** Prof. Inoue

**Affiliation at Nagoya Univ.:** Mechanical Systems Engineering



Having been to Japan before, I wanted to experience Japan in a different way, and what better way than by doing an exchange program? I wanted to push my boundaries and grow as a person, and the program did exactly that. I also wanted to visit places in Japan that I had missed the first time and revisit some of the best spot I discovered during my initial trip.

The transportation system in Japan is so advanced that you easily travel anywhere. During the weekends, I had the chance to visit cities like Kyoto, Nara, Osaka. I also explored many small cities around Nagoya, such as Toyota and Gifu. One of my goals during this trip was to climb Mount Fuji and watch the sunrise from the summit. I cherished every moment and even had the opportunity to gaze at the stars near the summit, where I was lucky enough to see a few shooting stars! It was definitely the highlight of my trip. Another unforgettable experience was attending the Osaka World Expo. Traveling between different pavilions felt like visiting a new country each time.

You don't have to go far to feel the vibrant energy of Nagoya. I had great moments with the rest of the JUACEP group simply wandering around downtown Nagoya. I also enjoyed the peaceful vibe of walking through the streets at night. I took countless walks with the group, exploring around the dorms and discussing.

One of the best things about Japan is the diversity of food. I love trying new foods, and Japan makes it easy to do so. Most of the restaurants are inexpensive, so dining out is affordable. If you're looking to try snacks, there are at least 1000 options to choose from, so you can always try something new.

I am grateful to the organizers of activities for international students. They arranged a small activity in Osu-Kannon to buy a yukata for the Tanabata festival, which was a memorable cultural experience. Additionally, the excursion organized by JUACEP was fantastic and made me learn a lot. We had the opportunity to visit a steel factory and an aerospace museum, and we even had a private tour of the Japanese module by a professor from Nagoya University who worked on it.

The weather in Japan is intense. Due to climate change, the rainy season ended two weeks earlier than usual, and we quickly entered the summer heat. Don't expect temperatures to dip 28°C, even at night. During the day, even if the temperature is only 38°C, the sun feels scorching. However, most Japanese people still wear pants, which is a big difference from Montreal, where everybody switches to shorts as soon as it's warm.

Speaking of cultural differences, one of my first surprises was that in my laboratory, we wore slippers. You get used to it quickly and even wonder why this isn't implemented at your own school, especially when it's raining outside.

Overall, I think this exchange was an incredible experience. It pushed me to learn how to work in a different country and culture, adapt to it, and create lasting memories.



## Findings through JUACEP

**Name:** [Leo Greenleaf](#)

**Affiliation at home country:** Mechanical Engineering, University of Michigan

**Participated program:** Summer Course 2025

**Research theme:** CO<sub>2</sub> ISRU cryodeposition

**Advisor at Nagoya Univ:** Prof. Kinefuchi

**Affiliation at Nagoya Univ.:** Aerospace Engineering



When I first arrived in Japan for the start of the JUACEP program, I was very nervous. Nervous about the language barrier, nervous about what research I would be doing, and nervous about meeting new people through the program. Having made it to the other side, I now realize I had nothing to be nervous about. I'll start by talking about the research. Both Professor Kinefuchi, and the students in his lab who helped me were exceptional in both bringing me on board, and facilitating my social and professional growth. I was given a tremendous amount of creative freedom when it came to the research I was able to conduct. Despite the fact that the lab mainly focuses on propulsion engineering, I was able to conduct research on turning CO<sub>2</sub> in the Martian atmosphere into dry ice to be used as a fuel source for getting spaceships back to earth. Students in the lab assisted me through 3D printing parts I had designed, setting up the vacuum chamber, and recording data for the experiments. Truly, I would not have been able to succeed at my research without them, and I am very grateful for all of their help.

Outside of the research, the part of the trip I will most remember is exploring the country over the weekends. The other students in the program and I created group chats very quickly and organized trips based on what places we were interested in visiting. This system allowed me to visit loads of wonderful places including the World Expo in Osaka, The bowing deer in Nara, the bamboo forest in Kyoto, the peak of Mt. Fuji, and so many more beautiful locations. Beyond the attractions, the food was certainly the best part of the food. The sushi, karaage, ramen, udon, bento boxes, and the fancy fruits were all highlights of my trip, and made every day exciting.

As a part of the program, we also had some planned excursions and experiences. Dissecting and putting together a motor, being able to feel the force of a jet engine, feeling the heat radiating from newly forged steel on a factory line, and learning about the Japanese space program were all wonderful experiences, especially for a mechanical engineering like myself, that added to the overall experience of the program.

I can't express how great a time this program was. I would recommend it to just about everyone who is eligible. I thank everyone who was involved in the program and who was a part of making the experience what it was.

## Findings through JUACEP

**Name: Lucas Nicol**

**Affiliation at home country (Dept & Univ): North Carolina State University**

**Participated program: Summer Course 2025**

**Research theme: Clustered RDEs**

**Advisor at Nagoya Univ: Prof. Kasahara**

**Affiliation at Nagoya Univ. (Dept.): Propulsion**



This Program offered me a taste of Japanese culture and student and working life with much fewer expectations. I really enjoyed the structure of the program. For my research project, it felt like what effort I put in was the reward I got out. I had the flexibility and freedom to pursue what I wanted the way I wanted – which is very rare in an academic setting. This gave me time to explore Japan while working odd hours which I appreciated. I loved going to different locations and seeing all the unique and interesting cultural differences even between cities. I was constantly surprised by how much the culture would change over short distances. My lab mates were incredibly courteous and good to work with. Everyone was incredibly nice and welcoming – they were very understanding of my lack of Japanese and accommodated me by trying to speak English.

Life in Nagoya and Japan is very different from the US. It is much cleaner for example, and people are less openly rude. Cultural expectations were also stricter and not what I was used to. I believe some people would absolutely love living there; I, personally, would prefer living in the US even with all of its issues.

Because of this, I believe that the experience has made me a more well rounded person and stands out strongly on my resume. There aren't many who can claim to have spent 10 weeks researching RDEs in Japan at Nagoya's Propulsion Dept. I believe strongly that this experience will help secure funding for me in the future.

Here's an Image from my hike up Fuji

