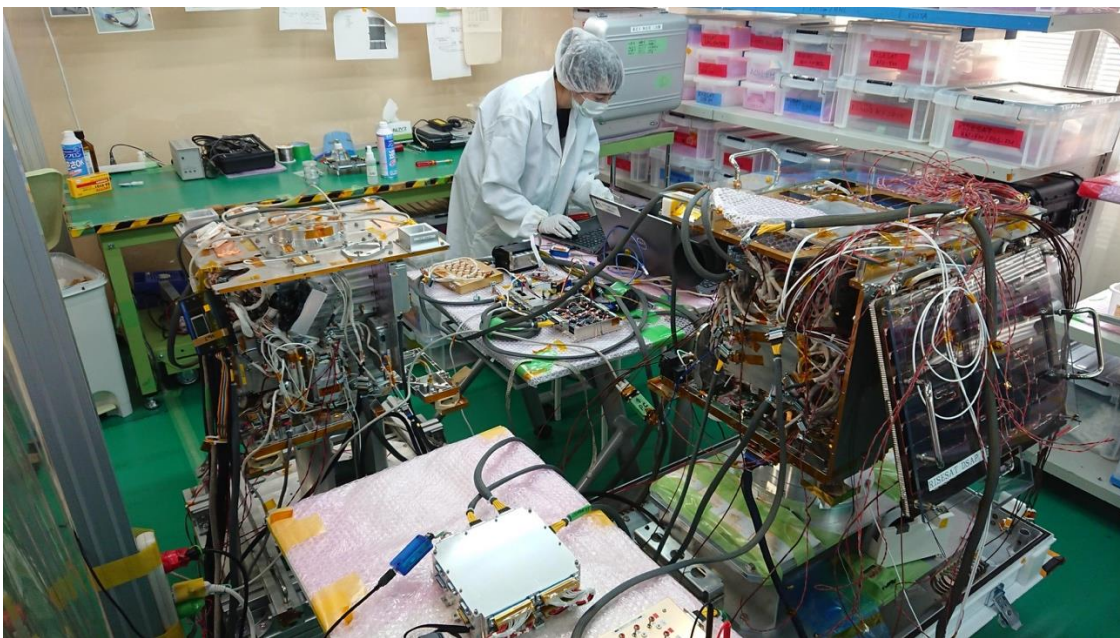


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3/27/2019

For the past year and a half, I have been working towards my master's degree in Aerospace Engineering at Tohoku University in Sendai, Japan. Known as the "City of Trees" for its many green spaces, Sendai is often considered one of the most livable cities in Japan, and Tohoku University is a large national university with a particular emphasis on research.

In most Japanese engineering programs, a laboratory affiliation is required for all students, so when I started my degree I joined the Space Robotics Laboratory (SRL). As a member of the microsatellite research group in SRL, I have had the opportunity to work on two satellite projects, both of which were launched just recently in January of 2019. I was able to take part not only in the design and development of the satellites but also the physical assembly of different components, integration of various subsystems, and following launch, the operation of the satellites from our mission control room. Being able to experience the full development cycle of a spacecraft is a bit of a rarity in the aerospace field, where projects can span years, even decades, and I have learned so much. Knowing that something I have worked on is in orbit is also incredibly gratifying. Along the way I've gotten to work closely with professional engineers and senior researchers from various companies and research institutions, both Japanese and foreign. I've also been able to present my research at international conferences.



Testing a satellite payload in the cleanroom

All of this is thanks to the ongoing support I receive from the MEXT scholarship, which covers both my education and living expenses. With this financial support, I've been able to dedicate myself to this research opportunity. Beyond the lab and my research, it has allowed me to further my Japanese language study and explore life in Japan.

Adapting to everyday life in Japan and Japanese research culture, while at times challenging, has been very rewarding. When I first moved to Sendai, even mundane tasks like mailing packages seemed daunting. I never imagined that I would now be taking part in engineering design meetings entirely in Japanese. The university culture is also very different from what I was accustomed to in the US. While I was used to devoting most of my time to classes and spending long hours in the library doing homework, here students spend most of their time in their laboratories, where they work on more open-ended research projects. Though there are often late nights, they result in a tight-knit social group. My lab holds all sorts of activities together: cherry blossom viewing in the spring, BBQs in the summer, even trips to local hot springs.

While I've lived in large cities for most of my life, I've grown to love Sendai and the surrounding countryside. Running has long been my hobby and 5Ks and marathons in various cities have taken me all over the Tohoku region. These travels, along with volunteer excursions to work with those directly affected by the aftermath of the 3/11 "triple disaster" have shown me the natural beauty of the region and the friendliness and resiliency of the people who live here. I still make time to travel around other parts of Japan as well.



Sightseeing around Kagoshima

None of my experiences in Japan would have been possible without the support provided by the MEXT scholarship. The opportunity I've had at SRL has been invaluable to my future career in the aerospace field, as I've been able to experience the entire development lifecycle of a spacecraft and the many disciplines of engineering involved. Moreover, working in a multilingual, cross-cultural setting has greatly strengthened my communication and organizational skills. I hope to apply these skills and experiences to future international collaborative research projects.