

Preparation for Internship

My internship started eight months prior to my departure for Germany. In fact, I was quite fortunate that my supervisor responded promptly to my request for finding an adequate laboratory for my internship. At the time, I still had two years to my graduation. This gave us an opportunity for making an informed decision on my internship and desired criteria of potential laboratory to join, considering all aspects of my research and its progress. Prior to my departure, we held regular meetings, once a month, with my future supervisor in Germany. Although most of these meetings were through Skype, I was fortunate to have an in-person meeting with my future supervisor during her visit to my laboratory once in that term, during which we jointly laid the bases for my research proposal for my internship. I was quite happy to learn that the laboratory I was about to join for my internship had taken all necessary steps to accommodate an international Ph.D. candidate in their research ecosystem. For instance, they shared with us their kind consideration in hiring students who were familiar with Japanese so I would feel more comfortable and closer to home.

Although the entire procedure went quite smoothly in my case, I would recommend to start the process for visa acquisition and travel plan in earliest time possible. I would do so, considering the time required for internship documents preparation, their submission to the Department of Engineering Science at my university, HWIP, and Japan Society for the Promotion of Science. Given my experience, this process may take up to two months for internship approval. Therefore, it is wise if the candidates finish the preparation of all necessary documents three months prior to their departure. One last note, research proposal during the internship period is part of aforementioned documentation. So, it is to candidates' best interest to start planning for their internship research proposal as early as they can.

Daily life in a foreign country (Germany)

Public transportation can become quite a challenge when you are in a new country. Unknown places and street signs that are all in a language foreign to your vocabulary make you feel exhausted from time to time. This can get even worse, considering the possible delays and unexpected event. For instance, in my case, it is not much an exaggeration if I say almost half of the planes and trains that I needed to take were delayed, giving me a plenty of time for window shopping and, possibly, changing my transportation plan. Although people are generally nice and helpful, it is important

to stay cautious when it comes to strangers as a genuine communication may turn complicated if you act carelessly. For instance, upon my arrival to the airport at my destination and was looking for the train station to get to my residential place during the internship, a stranger kindly showed me the way even though I did not ask for his help, just to follow me after and demanding money for his no-requested assistance. Obviously, I rejected his baseless demand, and he gave up and left. In another occasion, when I was passing ticket inspection in a train station, a stranger closely followed me, trying to pass without a ticket. Although these stories did not cause too much of a trouble for me, things may not go all that well if we are not cautious about our surrounding in a new environment.

Members of the laboratory that I joined for my internship welcomed warmly me with a greeting card and throwing a welcome party. This brought me stable mind and encouraged me to focus my mind on my research. I will certainly practice their light and welcoming attitude in making me feel stable in my new research environment to newcomers visiting my laboratory in the future.

Life style in a foreign country is often different from what we have in Japan. So, it is always a good practice to take the initiative to ask questions. Although I know that it is quite customary for Japanese to hesitate in asking for a favor, I strongly recommend doing so for sake of your own peace-of-mind. For instance, my hesitations resulted in taking longer than generally expected to rent an apartment and do my laundry. It is also important to arrange for communication means, such as a SIM card for your phone and mobile Wi-Fi. In addition, it is wise to have contact information of members of your visiting laboratory. For instance, I once left the key in my room and went out on a Sunday. Upon my return, I realized that I was unable to enter my room since the door of my apartment is automatically locked. Thankfully, I had contacts of my colleagues whose friends came to my rescue.

German lifestyle is not so much a challenging experience for Japanese, I would say. In fact, I found similarities between us and German way of living, and the differences between them did not bother me. In addition, EU tour of HWIP gave me the comforting assurance that German cuisine is well-suited for Japanese appetite. However, lack of round-the-clock convenience store (at least in Bielefeld), as we are use to it in Japan, may feel a little discomforting. Most supermarkets are closed after 10 p.m. and on Sunday. So, it is a good idea to do your shopping ahead of weekend and earlier

in the day. On the other hand, one advantage that I felt in Germany was longer daylight, at least during the summer, it was bright until almost 10:00 PM in the evening. It allows me to work harder on my research with not much stress until late at night. One last interesting thing, Germans are pretty active in sports, which means I could easily join sports activities and play badminton which is my favorite sport. I played badminton once every other week, keeping my mental and physical health in good condition.

Research and Studies

My internship aimed at collaborative research with international researchers. I visited Center of Excellence Cognitive Interaction Technology (CITEC) which specializes in interdisciplinary research between robotics and psychology. CITEC is based in Bielefeld University, Germany. Bielefeld University has the second biggest building in German universities. It is interesting to note that almost all departments are in one building. Interaction space is located in the center of this building, forming an ideal environment for interdisciplinary research. CITEC is a new department that was officially opened in 2007. It offers cutting-edge research facilities for scientists from six disciplines, namely, informatics, biology, linguistics, mathematics, psychology, and sports sciences. Seventeen research groups from the Cluster of Excellence Cognitive Interaction Technology collaborate closely across disciplines. It is worth noting that its second funding period runs until 2017. I am pleased to say that joining CITEC helped me advance my understanding on management of interdisciplinary research.

I worked on a collaborative research at Friederike Eyssel laboratory which specializes in Human-Robot interaction at CITEC. My research in Japan focuses on the effect and application of a huggable communication medium. My supervisor at Friederike Eyssel laboratory gave me the opportunity to study the effect of my huggable communication medium on members of her laboratory. This, in turn, allowed me to learn German methodologies and approaches to interdisciplinary research to deal with cultural and systematic differences. It is worthy of note that Ph.D. candidates are considered as research lead in their projects at Bielefeld University. They are required to communicate with members of their projects, including interns, integrating their research activities with project



The members of Lab

progress. In my opinion, collaborative research that involves international students and researchers demands for comprehensive and conclusive communication. This internship helped mature my communication and language skills.

I conducted subjective experiments with a huggable communication medium to realize the psychological aspects of such media on human subjects. A huggable communication medium enables its user to have a telecommunication while hugging a humanlike object. In particular, such a medium allows its user to imagine hugging a communication partner. There were a number of psychologists at Friederike Eyssel laboratory. This allowed me to evaluate my research findings and results from a psychological perspective. It is crucial to note that the meaning associated with a message and/or act of hugging is substantially affected by the cultural background which, in turn, influence the psychological impact of such a medium. My experimental paradigms involving German participants can help reveal such potential cultural aspects. In addition, they helped me enhance my academic knowledge required for interdisciplinary research.

I was fortunate to have the opportunity to attend a number of lectures by Professor Eyssel. I also presented my research in one of these lectures. I found differences between German and Japanese way of lecturing quite interesting. For instance, Professor Eyssel asked for much more contribution from her students, including their opinions, suggestions, and ideas. On the other hand, a typical Japanese lecture is mostly based on materials that are presented by the lecturer. I believe German style provides better opportunity to encourage students for their active involvement, thereby preparing them for taking leading roles in the future. Therefore, I strongly believe that a reform in Japanese way of lecturing will certainly benefit our future generation of leaders in science and industry.



My presentation