

Internship Experience Report (If you participated in an overseas internship, describe your internship experience in English.)

1. Lessons learned and problems faced while preparing for the internship

While preparing the internship in Hong Kong, I struggled a lot. We all know that although Hong Kong is legally a part of China, because of some historical reasons, it has different political system and people there hold different passport. The first problem I met is applying VISA, I started my VISA application procedure on 19 Dec. 2018, and when I finally received my VISA label, it was 19 Apr. 2019. That is, I took 4 months to do the VISA application. Honestly speaking, this is the longest time I took while doing the VISA application.

Lessons learned and suggestions: in Hong Kong, if you want to stay over 2 weeks, you need a working VISA. This procedure MUST cooperate with the working place (E.g., Office of PolyU). You need to prepare necessary files and EMS to your working place, and after they check, they will send it to Hong Kong immigration bureau. The Hong Kong immigration bureau will take at LEAST 8 weeks to proceed your VISA. Then they will send the VISA label (Fig. 1) to your working place, and finally the working place will EMS to you. As this procedure takes extremely long time, I suggest anyone who wants to go to Hong Kong has to prepare early, if not, you may not have enough time.

Another important thing is that **the exact permit of staying will be given only after your arriving at the airport**. In my situation, I have a permit of working 30 days. This is quite obscure because I do not know this “working 30 days” include arriving day or departure day or not. The truth is, 30 day is 30 day. So in my situation, I arrived at Hong Kong on 23 Apr. 2019, and I must leave Hong Kong before 23 May 2019 (Fig. 2). So I had to change my flight. And thanks a lot for the help of Mrs. Ikumi and other HWIP office members.

2. Purpose of internship and knowledge gained through the internship experience (e.g. R&D procedures and policy development process)

The purpose of internship is that I would like to experience a different life style and research environment in a different place. Prof. Cao is a world-wide famous professor in our research field with citations over 16000. And I would like to learn from him and make some new friends of our field.

Knowledge gained: 1. Group members are all asked to take lectures about data structures and algorithms. Therefore, I took course 6.00 about data structures and course 6.006 about algorithms from MIT Opencourseware. I gained knowledge about common/ uncommon data structures (e.g., trees, list nodes), algorithms (e.g., hashing chains, dynamic programming), and programming skills (e.g., shadowing of class, details of class constructing). 2. Hong Kong Polytechnic University offers a lot seminars given by invited professor all around the world. I joined lots of seminars and I gained knowledge from different fields. For example, in the seminar given by Prof. Yong Lian from Shanghai Jiao Tong University. He gives us a seminar titled as “The Role and Challenges of Embedded AI in the Era of Internet Intelligence-of-Things” (Fig. 3). Prof. Yong Lian majors in circuits so he mainly talked about the combination of hardware and software which inspires me a lot. As another example, Prof. Weihua Zhuang from University of Waterloo gives us a seminar titled as “Service Provisioning in 5G



Figure 1: VISA label received by EMS

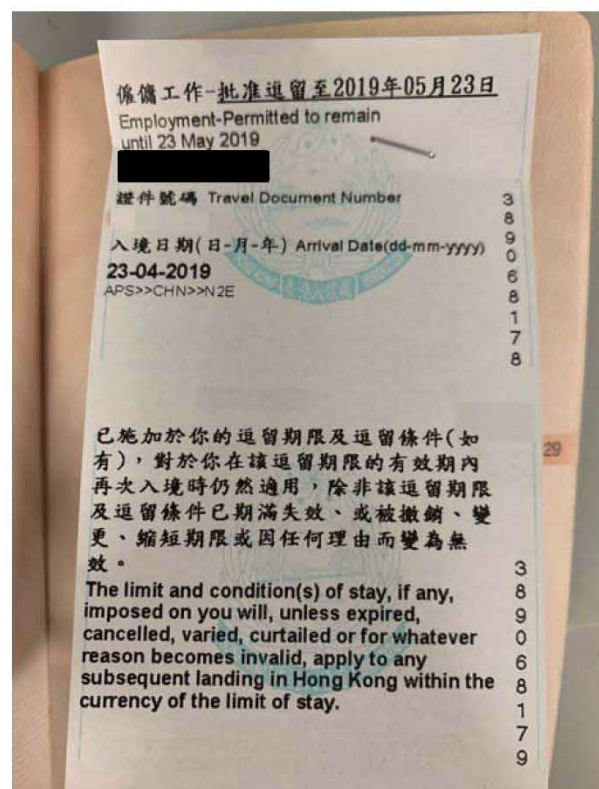


Figure 2: Permit of staying after arriving at Hong Kong airport



Figure 3: Prof. Yong Lian giving a seminar



Figure 4: Prof. Weihua Zhuang giving a seminar

Communication Networks” (Fig. 4). She talked about the SDN and NFV deployment in large scale. In all these seminars, I asked at least one question and had discussion with these professors.

3. What you learned and realized through the internship concerning communications with colleagues, supervisors and/or academic staff

I participated in all the group meetings during this month, and I learned a lot from Prof. Cao and other lab members.

This lab holds a weekly meeting every Friday, and only those who have great progress and new ideas need to present. After the presentation, group members ask questions and make comments actively. Their questions are quite deep, and can always touch the core of the particular issue. Finally, Prof. Cao will make a summary and give a direction for the student’s future work. Prof. Cao has great insight, he not only gives instructions about the student research, but also tells the students how to thinking and how to write a logistic story of their papers.

Prof. Cao always stresses the importance of new ideas of a study. He thinks that a study only apply existing things on different environments is boring. It is a kind of homework rather than “research”. Consequently, he asks students to take some time to think about new things and crazy ideas, no matter how difficult it is. As he says, “difficulty is the value of a research”.

I present my current work on the group meeting of my third-week. Prof. Cao thinks I made a clear presentation which is very easy to understand, and he thinks my work is very interesting and novel. However, he also

points out that the assumption and solution of my current work are still too simple like abovementioned “homework”. He suggests me to make the assumption more complicated, and think more subtle solutions. Also, other members ask me some questions, and I answer in clear manner.

I appreciate Prof. Cao and other members’ advice, and I will make use of these advice and do better study.

4. Improvements you made and goals you failed to achieve, and how you will use the experience for your future career.

We all know that English and Chinese Mandarin are the two official languages of Hong Kong. However, because Hong Kong Polytechnic University is an international university, in daily discussion we all use English. I think I improved my command of English during this month. Also, as abovementioned, I learned to think more logically and from a higher level when facing problems.

I think the experience is very precious, and I will keep this thinking pattern in my future career.

These is no goal I failed to achieve during the internship. I have finished my part of the team project (confidential so I cannot describe details) and done my study.

5. What you learned from working in academia or industry outside of the laboratory (advantages and difficulties)

In Prof. Cao’s lab, there are no associate professors, which is quite different from Hara lab. Because Prof. Cao is extremely busy, students can only meet him once a week on the weekly meeting. As a result, I have difficulties

because I cannot find anyone to discuss about my study. I am not so familiar with this situation, because in Hara lab I can discuss with associate or assistant professors anytime I need. Furthermore, similar as most labs in China mainland, professors in Hong Kong Polytechnic University will not give instructions in details but in a large direction. So they will not check your papers word by word, but only help you to revise your abstract.

I think such environment has both advantage and disadvantage. The disadvantage is that for new comers, they may start in a very slow speed without instruction, and they may lose interest in researches. However, for those who have interest in doing researches, such free environment will broaden their views, they can find the researching topic they most interest in.

6. What you discovered about daily living in the country of the host organization, such as lodging, meals, safety, commodity prices and weekend activities.

Lodging: I searched on my place to live on a local site in Hong Kong. Because of the concern of health, I do not want to share the bathroom or toilet with others. Fortunately, I found an apartment with bathroom and toilet with 8200 HKD per month (about 115000 JPY). However, the apartment is very small with only about 15 square meters.

Meals: Hong Kong mainly eat staple food, like fried rice, noodles, and porridge. Fruits here are not expensive as in Japan. I hardly ate vegetables during this month because there are rarely vegetables include in a set of meal supplied by restaurant.

Safety: I think Hong Kong is very safe. You can go to outside safely in the late evening. I think there is no difference with Japan about safety.

Commodity prices: daily commodity prices in Hong Kong are similar in Japan. However, because all commodities in Hong Kong are tax free, the prices of the luxuries and cosmetics are about 75% of that in Japan. Moreover, the prices of electronic devices such as iPhone and iPad are 90% of that in Japan. As a results, in weekends, a lot of tourists come to Hong for buying goods.

Weekend activities: I mainly go to lab on weekends. However, I also climb mountains (Fig. 5) and visit other universities such as Hong Kong university (Fig. 6). Please note that the mosquitos and other flies in Hong Kong are totally different in Japan. They are strongly aggressive. If one is bite by such mosquitos, they need about 1 month to cure the wounds. As a result, people MUST wear long clothes and pants when climbing mountains.



Figure 5: View from Mountain Lung Fu



Figure 6: visiting Hong Kong Universities