

船井情報科学振興財団 留学報告書 2015 年 06 月

川口賢司 Kenji Kawaguchi

PhD Student at MIT EECS & CSAIL

<http://people.csail.mit.edu/kawaguch/>

Research – I am very fortunate to have two great advisers: Professor Leslie Kaelbling and Professor Tomás Lozano-Pérez. During my time in their research group I devised a new Bayesian optimization method that maintains a theoretical error bound exponential in the number of samples. At the moment I am working on a draft of a paper regarding the notation of probably approximately correct in MDP. Also, I just started learning RKHS embedding of probability.



Second Semester – As a PhD student I have to complete four classes over the course of my first two years. In my first semester I took Machine Learning, and in the second semester I took a theory class called Randomized Algorithms. I found that discussion with collaborators on class projects was very beneficial because it reminded me about the importance of presentation and helped improve my ability to communicate technical

ideas orally in English. I've also been reading books on more basics of math such as functional analysis, measure theory, and vector calculus. By having the opportunity to be a full-time student for the first time since middle school, I feel that I am learning a lot and I am looking forward for what is to come in the following semesters.



Winter -- My first winter in the USA was, as everyone kept saying, a historic event. As most Japanese know, Tokyo doesn't get a lot of snow in the winter. Before coming to Boston everyone warned me, saying it was going to be very cold and that there would be a lot of snow. And they were right. The winter of 2014/2015 was a bad one. But not as bad as I had expected. Maybe my expectations were too high and when it didn't snow until the end of January I was actually a bit disappointed. I kept asking where the snow was. There was no white Christmas. To be honest, on Christmas day I spent the day walking around campus wearing a light jacket. I enjoyed the Christmas decorations, but the snowy image that I'd had in my head was not my reality.

Then when it did snow, it snowed a lot. Boston received 110.6 inches (280.924 centimeters) of snow, the most it has ever gotten before! There were three blizzards in two weeks during February and more that came after that. It was difficult to go anywhere on my bike and I didn't like having to ride the bus to my lab or class. And it was cold. But beautiful. The snow piled up and MIT closed three times. The trains weren't running and the snow was piled into mountains that were taller than a person. It was nothing like I'd ever seen in Tokyo. Maybe those of you from Hokkaido can relate.

船井情報科学振興財団には心より感謝しております。本当にありがとうございます。