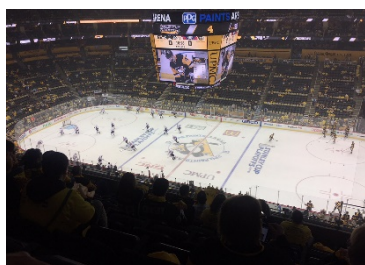


## 【Vol.2】 Report from Ryu Takeda

This second report describes my few months from the previous report. The severe winter is over, and it got warmer and warmer. The weather in this season is very unstable, and the sudden thunderstorm often comes (I experienced a power outage). I always had an umbrella for a sudden shower. Although I actually spent ordinary days, I introduce a few experiences and research topics during my holidays.



**Figure 2 PPG Paints Arena**

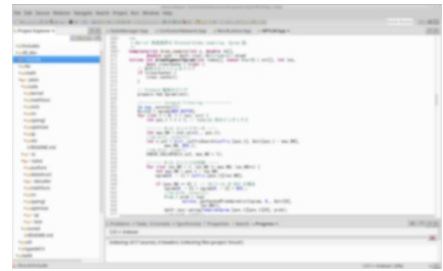


**Figure 1 Plenary talk**

The Pittsburgh Penguins is an ice hockey team in Pittsburgh. I went to PPG Paints Arena (Fig.1) to watch the game of the Stanley Cup Playoff with Washington Capitals. It was my first time to watch ice hockey, and I did not know the rule well. However, the game was too exciting because players often roughed other players and spectators were loud and made noises. The audio and visual equipment were also beyond my expectation. I really enjoyed the game and got interested in ice hockey.

I also attended an international conference on speech signal processing held at Calgary in Canada. It is important to get information about latest researches in our computer science area. I feel the city was beautiful, but I was surprised that it showed during the conference. The food was also delicious, but a little expensive. During the conference, I listened a lot of researches about signal processing, speech recognition and language processing, which will lead me to good ideas. Deep learning is also widely used in this area, and researches more than 60 % were related with it. The plenary talks (one is given by Dr. Yann LeCun) were also impressive (Fig. 2).

I continued to research and study, of course. My search includes two main parts; development of new algorithms and implementation of system. Since my purpose is a spoken dialogue system, I need to deeply understand each module of dialogue system, such as speech recognition and language processing. Therefore, I should learn and implement these modules as well as to develop a new algorithm for the system.



**Figure 3 Example of source code**

I'm also trying to use deep learning techniques in the system to improve performance. I really studied and implemented many models and basic algorithms (Fig.3) during this period, which definitely made me grow up.

Thank you.