

## インターンシップ体験記 (続き)

In the internship period, I got lots of freedom to plan and decide my research contents and schedule. The professor really respect what I purposed to do and also give me many advices. The thinking ways of the lab members are also interesting. They like to take much time to talk about different themes, not just the research itself. Just like the professor has told to me, "you should learn more knowledge from your daily life, not only stay in your lab". I got understand that knowledge surround them is so important to them. Actually, in the research field of swarm intelligence, getting close to nature, society helps researchers find many inspirations. Lots of swarm intelligence dynamics models built base on the nature intelligence. Like the firefly algorithm, it makes use of the intensity attracting behavior of fireflies to let the whole group gathering. The gathering action is able to be used to realize the convergence ability.

About the research, I learnt so much about evolutionary process and imported it into my hybrid algorithm for improving performance. I have successfully make a PSO-FA hybrid algorithm in which evolutionary process imported and tested it to show that it is able to perform better than MFEA on multitasking optimization problems. For future work, it is need to analysis how the hybrid algorithm perform well on multitasking optimization problems with different dynamics models.

Thanks to this internship, I experienced so many wonderful things in Singapore and Nanyang Technology University. The professor and lab members are very kind to me and help me a lot on my research. I learnt so much knowledge and experiences in this period. It is need to say that the internship is not easy and I take so much time and energy even from the prepare time. Since this internship is my private activity, many works need to do by myself. It is also necessary for me to get use to the differences like weather, food, and culture. At the same time, I got important experiences about life and work in a different country. I was provided lots of freedom for planning my work, and get many chances to communicate with other team members.



I have lots of fun in my daily life. Since Singapore is a typical tropical country, you don' t need to dress too much all the year. Even though the accommodation cost is high, but the food would not cost much. The safety of Singapore is also good. You don' t need to worry about your safe in public space. Sometimes the weather could be too hot so it is always need to heatstroke prevention.

This internship provides me a good opportunity to enjoy a happy research trip. I learnt how to set objective, plan schedule, arrange foreign life by myself. These experiences really helped me grow up as a researcher. It is no doubt that this internship has big and important effect on my Phd life and benefit from it in the future.