# Reflection – Haoran

This DIP project is the most challenging project that I have ever done, but also the most beneficial one. As it is the first time I touched deep learning, I researched on the structures and mechanisms of CNN and RNN model a lot. Apart from this project, I also went through some supplementary online courses from Coursera and Kaggle, which provided me with a clearer overview of a deep learning project. Fortunately, when the project is completed, I even grow more interest in deep learning and data processing.

Teamwork in this project maximises efficiency and encourages self-learning. All of six members of our group are divided in three subgroups, and each group works in parallel, which encourages everyone to engage and learn, and avoid free riders. In our subgroup, not only professional, but also good personal friendships are established between Claire, Farhan and me. Every week after meeting and reporting, we would start a subgroup meeting to discuss what to do this week, regarding the current process and suggestions from Dr Nguyen.

My programming skills have been improved a lot by this project. Firstly, My Python programming skills were largely improved, and I gained valuable experience on object-oriented programming, and learnt how to handle many files with different functions. Secondly, our subgroup worked on various platforms and environments: Windows 10 OS, Google Colaboratory and Google Drive, Linux virtual machines. I also learnt how to use MLDA GPU resources from Chen Hongyu, which is very helpful in deep learning project with a lot of calculation works. Thirdly, operating on a shared server helped me know how to avoid collision with others, such as clearing the server space usually, and utilizing different GPU resources to ensure everyone’s memory usage.

In the beginning stage, we were quite fast in obtaining results from the model we chose on Flickr8k dataset for text generation test. Right after moving on our target dataset, food reviews, we met problem of generating the same reviews from different input images. However, none of our subgroup members gave up, and we tried a lot of modifications to figure out what was wrong with the model. Special thanks to Dr Nguyen, who is really patient and helpful, when our subgroup stuck in the problem of generating the same reviews for different images, he took his time to go through our codes and helped us out of trouble. Finally, we successfully worked out desirable outcomes with Dr Nguyen’s suggestions and resources.

If I have the opportunity to work on another deep learning project next time, I would spend more time in the primary stage, to investigate in the characteristics of the model, and create more functions in favor of following stages. Additionally, I would try some version control tools, such as GitHub, to avoid overwriting and improve in collaboration with other group members.