Recommendation Letter

Dear Sir or Madam,

I take delight in writing this letter on behalf of Mr. Liu Shuo, a promising candidate for your graduate program. Liu Shuo undertook an internship at CAS Institute of Automation during the summer vacation of 2018, when he won my praise with his work attitude and abilities.

Liu Shuo first struck me as an active learner. His work content was mainly to apply MADDPG algorithm to the reinforcement learning environment of *PYSC II*. When newly commencing this work, he proactively read through many papers concerning different algorithms like DQN, DDPG, sc2le, and MADDPG and actively discussed his puzzles with senior colleagues.

When evaluating his performance in the first week, I found that he had gained a good mastery of the algorithms that would be used in this work. Thus, I arranged him to configure the environment and familiarize himself with all the relevant files and codes the next week. In our communication, I was told that he was confronted with some problems in this process; for example, he was not able to install Tensorflow using pip3 at first. After reading much online information and trying many times, he installed the Anaconda environment successfully. This process let me see his perseverance and problem-solving skills.

Later on, Liu Shuo impressed me with his sharp thinking and abilities to do game optimization. In our talks, he pointed out the problem that the coding style of the *PYSC II* project was not good enough because some colleagues did not consider the robustness of codes simply in order for high efficiency. He took the initiative to make a difference and then did a good job in improving the current reward.

To conclude, Liu Shuo has good study, thinking, observation, and development capabilities, which distinguished him from most other trainees in this internship. I am positive about his fast growth with your education and willing to give my strong backing to his postgraduate study plan.

Sincerely

XXX

Title

Chinese Academy of Sciences Institute of Automation

Email:

Address: