

## Reference Letter

To whom it may concern,

I have great pleasure in recommending Dr. Zheng Yan, one of my most outstanding students, to apply for the “outstanding doctoral dissertations award”.

As his PhD co-supervisor, I have witnessed his grows from a young Ph.D. student to a well-established researcher. Dr. Zheng started his research in the area of deep reinforcement learning theory and multiagent system. Studying theory has always been one of the most challenge problems but of great importance in deep learning and multiagent system fields. To my surprise, Dr. Zheng never gives up, no matter how hard the problem is. Eventually, he successfully proposes new algorithms to overcome the theoretical drawbacks of existing algorithms, which lead to two top conference papers. These works demonstrated his critical thinking, hardworking, good mathematical faculties and proficient computer programming skills. Before graduation, he published over ten papers in the top-tier conference/journal (AAAI, NeurIPS, IJCAI, JSS, ASE, AAMAS). The ASE 2019 paper won the ACM SIGSOFT Distinguished Paper Award, which is recognition of his contribution. Moreover, he awarded four times of the National Scholarship for postgraduate students (top 0.09% students) as well as the Google Scholarship (Top 0.6%).

Apart from his excellence in college, he worked as an AI consultant/engineer in world-wide companies like IBM, Accenture, Alipay, NetEase. Through the internship, he received multiple awards (e.g., Distinguished Paper Award of ASE 2019), gained recognition from these companies, and build good friendship and relations. During the last two years of his postgraduate career, Dr. Zheng joined the CSL of SCSE in NTU as a research assistant supervised by Prof. Liu Yang. Dr. Zheng's English written is clear and concise, as well as his oral English. His excellent English skills allow him to cooperate with colleagues in NTU smoothly and successfully.

Besides, I have also found his strong organizational leadership. Not only did he do excellent jobs as a president in the students' union during his postgraduate, but also as the mentor of the junior students in my lab. Currently, Dr. Zheng has been a co-mentor of the Deep Reinforcement Learning Lab at Tianjin University and co-supervised about ten students to conduct frontier researches.

In my view, Dr. Zheng is a young scholar, full of talent, confidence and energy. He likes to challenge new and hard problems and can propose different insightful ideas. The research publications and awards have demonstrated his ability in doing impactful research. I firmly believe that he will be a distinctive researcher and your favorable consideration of his application will be highly appreciated.

Yours faithfully,  
Jianye Hao



Associate Professor

College of Intelligence and Computing, Tianjin University, Tianjin, China, 300072

Email: [jianye.hao@tju.edu.cn](mailto:jianye.hao@tju.edu.cn)