Wenhao Tang

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Summary

Senior student of Department of Electronic Engineering, Tsinghua University.
Interested in reinforcement learning and robotics.
Familiar with knowledge and skills of reinforcement learning and have some experience in robotics research.

Research Experience

The Safety Issues of New Energy Vehicles (SRT)   *October 2020–September 2021*
School of Vehicle and Mobility, Tsinghua University

- Research a large number of literature and conclude 3 main types of threat to the safety of new energy vehicles
- Form several text and image material to promote safety knowledge to the public
- Highlighted by Professor Xuning Feng
- Develop to part of a project that won second prize on the Challenge Cup (Due to major change, I quit by the end of my freshman year)

Research on Reliable Speech Recognition   *December 2021–May 2022*
Department of Electronic Engineering, Tsinghua University

- Master basic knowledge and skills of Machine Learning and Deep Learning
- Research on current development of NLP and reliable ML
- Form detailed review of reliable speech recognition

Motion Realization of Humanoid Robot Based on Reinforcement Learning   *October 2022–April 2023*
Institute for Interdisciplinary Information Sciences, Tsinghua University

- Master basic knowledge and skills of Deep Reinforcement Learning
- Train humanoid robot to take certain motions such as standing, squatting, turning etc. using Deep RL method
- Use different network structure such as separate hand-foot policies and hierarchical policies for more complicated tasks

Periodic Transform in DeepReach   *June 2023–August 2023*
Department of Electrical and Computer Engineering, University of Southern California, USA

- Learn Hamilton-Jacobi Reachability Theory in detail
- Improve DeepReach algorithm in solving reachability problem using deep neural network
- Solve periodic issue by adding periodic transform method in DeepReach algorithm
- Highly commented by Prof. Somil Bansal of USC

Social Work Experience

School of Vehicle and Mobility   *Freshman*

- Promoter of Class Mechanics 008 (Class A League Branch of Tsinghua University)
- Secretary of the Arts Department of the Student Union

Department of Electronic Engineering *Sophomore, Junior*

- Monitor & Organization Committee of Class Electronic 08 (Class A League Branch of Dept. of EE, Tsinghua University)
- Secretary of the Freshman Department of the Youth League Committee of EE Department
- Secretary of the Volunteering Center of the Youth League Committee of Tsinghua University
- Vice President & Minister of the General Operations Department of Association of Jiangxi Culture Communication (one of the top 10 student associations of Tsinghua University)

Honors

Gold prize of social practice of student clubs on winter vacation (leader of team), *March 2021*
Second prize of social practice of Tsinghua University (leader of team)

Tang Zhongying Moral Education Scholarship *April 2021, April 2022*

National Encouragement Scholarship *October 2021, October 2022*

2020-2021 Comprehensive Excellence Award *October 2021*

2021-2022 Social Work Excellence Award *October 2022*

Additional Skills

- Familiar with programming language C, C++, Python, Matlab
- Proficient in MS Office (Word, Excel, PowerPoint, Visio etc.)
- Fluent in English