TONGZHOU MU

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EDUCATION

University of California, San Diego
- *Ph.D. in Computer Science & Engineering*   ***Advisor:** Hao Su*   2019 – Present
- *M.S. in Computer Science & Engineering*   ***GPA:** 4.0/4.0*   2017 – 2019

Zhejiang University   *B.Eng. in Computer Science*   ***GPA:** 3.8/4.0, **Major GPA:** 3.97/4.00*   2013 – 2017

RESEARCH INTERESTS

- Reinforcement Learning (especially object-centric RL and model-based RL),
- Planning & Control
- Concept Discovery and Reasoning

PUBLICATIONS

- **Tongzhou Mu***, Zhan Ling*, Fanbo Xiang*, Derek Yang*, Xuanlin Li*, Stone Tao, Zhiao Huang, Zhiwei Jia, and Hao Su. "ManiSkill: Generalizable Manipulation Skill Benchmark with Large-Scale Demonstrations." In *the 35th Conference on Neural Information Processing Systems (NeurIPS) Datasets and Benchmarks Track*, 2021.

- **Tongzhou Mu***, Jiayuan Gu*, Zhiwei Jia, Hao Tang, and Hao Su. "Refactoring Policy for Compositional Generalizability using Self-Supervised Object Proposals." In *the 34th Conference on Neural Information Processing Systems (NeurIPS)*, 2020.

- Fangchen Liu, Zhan Ling, **Tongzhou Mu**, and Hao Su. "State Alignment-based Imitation Learning." In *the 8th International Conference on Learning Representations (ICLR)*, 2020.

- Xingchao Liu*, **Tongzhou Mu***, and Hao Su. "Transfer Value or Policy? A Value-centric Framework Towards Transferrable Continuous Reinforcement Learning." In *the Deep Reinforcement Learning Workshop at the 32th Conference on Neural Information Processing Systems (NeurIPS)*, 2018.

- Zebang Shen, Hui Qian, **Tongzhou Mu**, and Chao Zhang. "Accelerated Doubly Stochastic Gradient Algorithm for Large-scale Empirical Risk Minimization." In *the 26th International Joint Conference on Artificial Intelligence (IJCAI)*, 2017.

- Zebang Shen, Hui Qian, Tengfei Zhou, and **Tongzhou Mu**. "Adaptive Variance Reducing for Stochastic Gradient Descent." In *the 25th International Joint Conference on Artificial Intelligence (IJCAI)*, 2016.

* indicates equal contribution

INDUSTRY EXPERIENCES

Amazon Alexa AI   Sunnyvale, United States
Full-Time Applied Scientist Intern   June 2021 – Sep 2021
- Designed an interpretable reinforcement learning framework for text-based games with graph inputs.

Wormpex AI Research   Seattle, United States
Full-Time Research Intern   June 2020 – Sep 2020
- Designed a customer behavior model and optimized the convivence store environment layout based on it.

Intel AI   San Diego, United States
Full-Time Research Intern   July 2019 – Sep 2019
- Worked on the memory-constrained navigation problem based on a method combining RL and planning.

Microsoft Research Asia   Beijing, China
Full-Time Intern at Visual Computing Group   Apr 2017 – Aug 2017
- Conducted research on visual navigation in simulated indoor scenes by using deep reinforcement learning.

AWARDS & HONORS

- ACM-ICPC (International Collegiate Programming Contest) Asia Regional Contest **Gold Medal**   2015
- Award of Excellence for Stars of Tomorrow Internship Program, Microsoft Research Asia   2017
- China Computer Federation Elite Collegiate Award (top 108 in China)   2016

TEACHING

- Teaching Assistant for *CSE 152 Introduction to Computer Vision* at UC San Diego   Fall 2018