Bingjie Tang

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EDUCATION

Ph.D.	Computer Science, **University of Southern California**.	Sep.2020-Present
	– Advised by *Gaurav Sukhatme.*	
M.S.	Computer Science, **Brown University**.	Sep.2018-May.2020
	– Advised by *George D. Konidaris & Stefanie A. Tellex.*	
B.S.	Computer Science, **Huazhong University of Sci. and Tech**.	Sep.2014-Jun.2018

PROJECT HIGHLIGHTS

Feature-based Multi-action Tabletop Rearrangement [paper, video]

Proposing a feature-based method that jointly learns two action primitives and a rearrangement planning policy in a table-top setting. Two separate fully-connected networks map visual observations to actions and another deep neural network learns rearrangement planning conditioned on the goal specification, perceptual input and selected action primitive.

Learning Collaborative Push and Grasp Policies in Dense Clutter [paper, video]

Learning planar pushing and 6-DoF grasping operations for dense clutter clean-up as sequential decision making process by using deep reinforcement learning algorithm. Deep neural networks are trained to map from 3D visual observations to actions with a Q-learning framework.

Open Named Entity Modeling from Embedding Distribution [paper]

Using generative adversarial network to learn a transformation matrix of two language embeddings, which results in a convenient determination of named entity distribution in the target language, indicating the potential of fast named entity discovery only using isomorphic relation between embeddings.

PUBLICATIONS

2022 **Bingjie T.**, Gaurav S. "Feature-based Multi-action Tabletop Rearrangement", submitted to 2022 IIEEE Robotics and Automation Letters (RA-L).

2021 **Bingjie T.**, Matthew C., Geroge K., Stefanos N., Stefanie T. "Learning Collaborative Pushing and Grasping Policies in Dense Clutter", 2021 IEEE International Conference on Robotics and Automation (ICRA), May 2021.

2020 Y. Luo, H. Zhao, Z. Zhang and **B. Tang** "Open Named Entity Modeling from Embedding Distribution." *IEEE Transactions on Knowledge & Data Engineering*, vol. , no. 01, pp. 1-1, 5555.

2018 Zhuosheng, Z., Jiangtong L., Hai Z., **Bingjie T.** "Neural Hypernym Discovery with Term Embeddings." *Proceedings of the 12th International Workshop on Semantic Evaluation (SemEval 2018)*, pp.903–908, Workshop of NAACL-HLT 2018.

WORKING EXPERIENCE

Nvidia Corporation, Robotics Research Intern. May.2022 - Aug.2022

MoE Key Lab, Shanghai Jiao Tong University, Research Assistant. Dec.2017 - Mar.2018

Advisor: Prof. Hai Zhao.

Technology Engineering Group (TEG), Tencent., SDE Intern. Jun.2017 - Sep.2017

TEACHING EXPERIENCE

Graduate Teaching Assistant, University of Southern California Jan.2022 - May.2022

CSCI566: Deep Learning and Its Applications by Prof. Xiang Ren.

Graduate Teaching Assistant, University of Southern California Aug.2021 - Dec.2021

CSCI103-L: Introduction to Programming by Prof. Andrew Goodney.

Graduate Teaching Assistant, Brown University Jan.2020 - May.2020

CSCI1460: Computational Linguistics by Prof. Eugene Charniak.

Graduate Teaching Assistant, Brown University Sep.2019 - Dec.2019

CSCI1951-R: Introduction to Robotics by Prof. Stefanie A. Tellex.

SKILLS

Programming language: Python, C, C++.

Software: Pytorch, Tensorflow, ROS, Pybullet, CoppeliaSim.

Updated March 2022