

Chao Tang (唐潮)

DOB: Aug 7, 1996

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EDUCATION

Southern University of Science and Technology, Shenzhen, China

Sept.2021 – Jun.2025(expected)

Doctor of Philosophy (Robotics)

GPA: 3.79

Georgia Institute of Technology, Atlanta, USA

Aug.2018 – May.2020

Master of Science (Electrical and Computer Engineering)

GPA: 3.90

Nanjing Tech University, Nanjing, China

Aug.2014 – Jun.2018

Bachelor of Engineering (Automation)

GPA: 3.80 Rank: 1/123

RESEARCH INTERESTS

My research interests involve robotic **manipulation and grasping**, **mobile manipulation**, **human-robot interaction**, and **semantic reasoning** for robots. The ultimate goal is to develop autonomous agents that can perceive, understand, and interact with the physical world with the same level of intelligence as humans.

PUBLICATIONS

- ✧ Dehao Huang, **Chao Tang**, and Hong Zhang, "Efficient Object Rearrangement via Multi-view Fusion", under review by IEEE ICRA 2024.
- ✧ **Chao Tang**, Dehao Huang, Wenqi Ge, Weiyu Liu and Hong Zhang, "GraspGPT: Leveraging Semantic Knowledge from a Large Language Model for Task-Oriented Grasping", accepted to IEEE Robotics and Automation Letters.
- ✧ **Chao Tang**, Dehao Huang, Lingxiao Meng, Weiyu Liu and Hong Zhang, "Task-Oriented Grasp Prediction with Visual-Language Inputs", accepted to IEEE IROS/RSJ 2023.
- ✧ **Chao Tang**, Jingwen Yu, Weinan Chen, Bingyi Xia and Hong Zhang, "Relationship Oriented Semantic Scene Understanding for Daily Manipulation Tasks", accepted to IEEE IROS/RSJ 2022.
- ✧ Weinan Chen, Hanjing Ye, Changfei Fu, **Chao Tang**, Lei Zhu and Hong Zhang, "Keyframe Selection with Information Occupancy Grid Model for Long-Term Data Association", accepted to IEEE/RSJ IROS 2022.
- ✧ Yunzhi Lin, **Chao Tang**, Fu-Jen Chu, Ruinian Xu and Patricio A. Vela, "Primitive Shape Recognition for Object Grasping", under review.
- ✧ Fu-Jen Chu, Ruinian Xu, **Chao Tang** and Patricio A. Vela, "Recognizing object affordance to support scene reasoning for manipulation tasks", under review.
- ✧ Ruinian Xu, Fu-Jen Chu, **Chao Tang**, Weiyu Liu and Patricio A. Vela, "An Affordance Keypoint Detection Network for Robot Manipulation", accepted to IEEE Robotics and Automation Letters (RA-L) & ICRA 2021.
- ✧ Yunzhi Lin*, **Chao Tang***, Fu-Jen Chu and Patricio A. Vela, "Using Synthetic Data and Deep Networks to Recognize Primitive Shapes for Object Grasping", accepted to IEEE ICRA 2020. (*-equal contribution)
- ✧ **Chao Tang**, Yifei Fan and Anthony J. Yezzi, "An Adaptive View of Adversarial Robustness from Test-time Smoothing Defense", accepted to NeurIPS 2019 workshop.
- ✧ Cuimei Bo, Wei Gao, **Chao Tang**, Jun Li and Xiaohua Lu, "Dynamic Control Design and Simulation of Biogas Pressurized Water Scrubbing Process", accepted to 10th IFAC Symposium on Advanced Control of Chemical Process ADCHEM 2018.

INTERNS

- ✧ Southern University of Science and Technology, Shenzhen, China
Research assistant at Shenzhen Key Laboratory of Robotics and Computer Vision supervised by Prof. Hong Zhang
Mar.2021 – Aug.2021
- ✧ Georgia Institute of Technology, Atlanta, USA
Research assistant at Intelligent Vision and Automation Lab supervised by Prof. Patricio Vela
May.2020 – Jan. 2021
- ✧ Fibrant Co. Ltd, Nanjing, China
Process control engineer with Mr. Li Liu
Jun.2017 – Aug.2017

HONORS AND AWARDS

- ✧ President Scholarship (2015, 2018), Nanjing Tech University
 - ✧ 2nd Prize, NXP Intelligent Vehicle Contest, National Level
 - ✧ 1st Prize, NXP Intelligent Vehicle Contest, East China Level
 - ✧ 3rd Prize, Siemens Intelligent Manufacturing Contest Challenge
 - ✧ Outstanding Graduate Horner, Nanjing Tech University
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ACTIVITIES & SERVICES

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| ✧ IEEE Robotics and Automation Letters (RA-L) Reviewer | 2023 |
| ✧ WRC SARA Reviewer | 2023 |
| ✧ IEEE/RSJ IROS Reviewer | 2022-2023 |
| ✧ IEEE ICRA Organizing Committee & Outstanding Volunteer | 2021 |
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MENTORSHIP

- ✧ Zhen Gao, Undergraduate Student at SUSTech
- ✧ Chenhao Ma, Undergraduate Student at SUSTech -> Master Student at SUSTech