

# YUNHAI HAN

(858)214-4416 ♦ yhan389@gatech.edu ♦ <https://y8han.github.io>

## EDUCATION BACKGROUND

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**Georgia Institute of Technology**

*Ph.D. in Robotics*

06/2022 - present

GPA: 4.00/4.00

· **Advisor:** Harish Ravichandar and Ye Zhao

**University of California, San Diego (UCSD)**

*M.S. in Dynamics & Controls, Mechanical and Aerospace Engineering*

09/2019 - 06/2021

GPA: 3.846/4.00

· **Relevant Course:** Robotics

· **Thesis & publication:** A Numerical Verification Framework for Differential Privacy in Estimation

**Yanshan University**

*B.S. in Mechatronics, Mechanical Engineering*

09/2015 - 07/2019

GPA: 3.761/4.5, Major GPA: 3.804/4.5

· **Relevant Course:** Mechatronics

Ranking: 2<sup>nd</sup> of 594 (First six semesters)

· **Thesis (in Chinese):** Automatically tracking system using monocular vision algorithm PnP

## FILED OF INTERESTS

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Learning for contact-rich manipulation, Robot learning

## PUBLICATIONS

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- **Han. Y**, Liu. Y, Paz. D, and Christensen. I. H, "Auto-calibration Method Using Stop Signs for Urban Autonomous Driving Applications", International Conference on Robotics and Automation, 2021
- Christensen. I. H, Paz. D, H. Zhang, D. Meyer, Hao. X, **Han. Y**, Liu. Y, Andrew. L, Z. Zhong, S. Tang, "Autonomous Vehicles for Micro-Mobility", Autonomous Intelligent System
- **Han. Y**, Liu. F and M. C. YIP, "A 2D Surgical Simulation Framework for Tool-Tissue Interaction", International Conference on Intelligent Robots and Systems, 2020, Workshop
- Liu. F, Li. Z, **Han. Y**, J Lu, F Richter and M. C. YIP, "Real-to-Sim Registration of Deformable Soft Tissue with Position-Based Dynamics for Surgical Robot Autonomy", International Conference on Robotics and Automation, 2021
- **Han. Y** and Martínez. S, "A Numerical Verification Framework for Differential Privacy in Estimation", IEEE Control Systems Letters
- **Han. Y**, Batra. R, Boyd. N, Zhao. T, She. Y, Hutchinson. S, Zhao. Y, "Learning Generalizable Vision-Tactile Robotic Grasping Strategy for Deformable Objects via Transformer", arXiv:2112.06374
- M. E. Cao, J. Warnke, **Han. Y**, Ni. Xinpei, Zhao. Y, Coogan. S, "Leveraging Heterogeneous Capabilities in Multi-Agent Systems for Environmental Conflict Resolution", International Symposium on Safety, Security, and Rescue Robotics, 2022
- **Han. Y**, Boyd. N, Ni. Xinpei, Zhao. Y, "Multi-Robot Collaboration with Heterogeneous Capabilities", American Control Conference, 2022

## AWARDS & HONORS

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### AWARDS

- 06/2016 China Undergraduate Mathematical Contest in Modelling (CUMCM) *Second Prize*
- 03/2017 Zhou Peiyuan Mechanics Competition *National Excellence Award*
- 05/2017 National Undergraduate Electronic Design Contest *Successful Entry Certificate*
- 09/2017 Asia-Pacific Mathematical contest in modeling (APMCM) *Second Prize*
- 01/2018 Mathematical Contest in Modeling (MCM/ICM) *Honorable Mention*
- 08/2018 RM RoboMasters *Second Prize*

### HONORS

- 11/2017 National Scholarship from Chinese Ministry of Education
- 07/2018 Certificate for Attendance of CDIO 2018 Academy (Japan)
- 06/2019 Certificate of Excellent Graduate in Hebei Province
- 09/2022 Georgia Tech IRIM Robotics PhD Fellowship

## PROFESSIONAL SERVICE

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ICRA 2021	Reviewer
AIM 2021	Reviewer
ICRA 2022	Reviewer
IROS 2022	Reviewer
ACC 2022	Session Chair
SSRR 2022	Reviewer

## TEACHING EXPERIENCE

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MAE145: Robotic Estimation & Planning	Winter. 2021
Teaching Assistant	
MAE146: Introduction to ML Algorithms	Spring. 2021
Teaching Assistant	

## WORKING EXPERIENCE

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Georgia Institute of Technology	Summer. 2021 - Spring. 2022
Research Assistant	

## TECHNICAL SKILLS

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Programming	C/C++, Python, MATLAB/Simulink
Tool	STM32, ROS, Drake, Git, Linux, L <sup>A</sup> T <sub>E</sub> X
Language	Proficient in English and Chinese