

Yifan Zhu

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- EDUCATION** **University of Illinois at Urbana-Champaign, Urbana-Champaign, IL**
Ph.D. in Computer Science expected: May 2023
- Duke University, Durham, NC**
Ph.D. in Electrical and Computer Engineering(transferred) Aug. 2017-Aug. 2019
- Vanderbilt University, Nashville, TN**
Bachelor of Engineering May 2017
Major: Mechanical Engineering
1st Minor: Mathematics
2nd Minor: Computer Science
- INDUSTRY EXPERIENCE** **Baidu Robotics & Autonomous-driving Lab, Sunnyvale, CA**
Research Intern May - Dec. 2021
- PUBLICATION** **Y. Zhu***, P. Thangeda*, M. Ornik, and K. Hauser. “Few-shot Adaptation for Manipulating Granular Materials Under Domain Shift,” Submitted to Robotics: Science and Systems (RSS) 2023.
- Jing-Chen Peng*, Joao Marcos Correia Marques*, Patrick Naughton*, **Yifan Zhu***, James Nam, Neil Malhotra, Kris Hauser. “Immersive Commodity Telepresence With the TRINA Nursebot, ” Manuscript in preparation to submit to International Journal of Social Robotics.
- Y. Zhu**, L. Wang, and L. Zhang, “Excavation of Fragmented Rocks with Multi-modal Model-based Reinforcement Learning,” IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2022.
- Y. Zhu**, A. Smith, and K. Hauser, “Automated Heart and Lung Auscultation in Robotic Physical Examinations,” IEEE Robotics and Automation Letters (RA-L) with ICRA 2022 option.
- Q. Lu*, **Y. Zhu***, and L. Zhang, “Excavation Reinforcement Learning Using Geometric Representation,” IEEE Robotics and Automation Letters (RA-L) with ICRA 2022 option.
- Y. Zhu**, Z. Pan, and K. Hauser, “Contact-Implicit Trajectory Optimization With Learned Deformable Contacts Using Bilevel Optimization,” IEEE International Conference on Robotics and Automation (ICRA) 2021.
- G. Ma, S. Oca, **Y. Zhu**, P. J. Codd., and D. Buckland, “A Novel Robotic System for Ultrasound-guided Peripheral Vascular Localization,” IEEE International Conference on Robotics and Automation (ICRA) 2021.

Y. Zhu, K. Lu, and K. Hauser, "Semi-Empirical Simulation of Learned Force Response Models for Heterogeneous Elastic Objects," *IEEE International Conference on Robotics and Automation (ICRA)* 2020.

Y. Zhu, L. Abdulmajeid, and K. Hauser, "A Data-driven Approach for Fast Simulation of Robot Locomotion on Granular Media," *IEEE International Conference on Robotics and Automation (ICRA)* 2019.

Y. Zhu, P. J. Swaney, I. S. Godage, R. Lathrop, and R. J. Webster, "A Disposable Robot for Intracerebral Hemorrhage Removal. *Journal of Medical Devices*, 2016; 10(2), 020952.

EXPERIENCE **ANA Avatar XPRIZE** Sept. 2019 - Nov. 2022

- One of the team leads on team AVATRINA that scored 4 th in the ANA Avatar XPRIZE final, one of the only 4 teams that finished all 10 tasks.

TEACHING(TA) *Intelligent Robotics (UIUC)* Spring 2020

Intro to Robotics and Automation (Duke University) Fall 2018

Intro to Robotics (Vanderbilt University) Fall 2015 and Fall 2016

PROFESSIONAL ACTIVITIES Reviewer for: *IEEE International Conference on Robotics and Automation (ICRA)*; *IEEE International Conference on Intelligent Robots and Systems (IROS)*; *IEEE Robotics and Automation Letters (RA-L)*; *IEEE Transactions on Robotics (T-RO)*; *IEEE International Conference on Advanced Robotics (ICAR)*; *IEEE Robotics & Automation Magazine (RAM)*

LINKS AVATAR XPRIZE team website: <https://avatarxprize.web.illinois.edu/>