Yifan Zhu

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EDUCATION

University of Illinois at Urbana-Champaign, Urbana-Champaign, IL
Ph.D. in Computer Science *expected: June 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*

REFEREED CONFERENCE AND JOURNAL PUBLICATION

Y. Zhu*, P. Thangeda*, M. Ornik, and K. Hauser. "Few-shot Adaptation for Manipulating Granular Materials Under Domain Shift," Robotics: Science and Systems (RSS) 2023.*

Y. Zhu*, L. Wang, and L. Zhang. "Excavation of Fragmented Rocks with Multimodal 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.*

REFEREED WORKSHOP PAPERS

P. Naughton, S. Nam, J. Marques, J. Peng, ***Y. Zhu****, Q. Kong, and K. Hauser. "Pan-Tilt-Roll Televisualization With Adjustable Baseline Stereo," ICRA Workshop: 2nd Workshop Toward Robot Avatars, 2023.*

J. Marques, J. Peng, P. Naughton, ***Y. Zhu****, and K. Hauser. "Commodity Telepresence with the AvaTRINA Nursebot in the ANA Avatar XPRIZE Finals," ICRA Workshop: 2nd Workshop Toward Robot Avatars, 2023.*

J. Marques, P. Naughton*,* ***Y. Zhu****, N. Malhotra, and K. Hauser. "Commodity Telepresence with the AvaTRINA Nursebot in the ANA Avatar XPRIZE Semifinals," RSS Workshop: Toward Robot Avatars: Perspectives on the ANA Avatar XPRIZE Competition, 2022.*

Y. Zhu*, A. Smith, and K. Hauser. "Informative path planning for automatic robotic auscultation," ICRA Workshop on Impact of COVID-19 on Medical Robotics and Wearables Research, 2021.*

EXPERIENCE

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

- *One of the team leads on teem 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/