

Education

- 2018 – **Brown University**
Ph.D. in Computer Science
Advisor: Stefanie Tellex
- 2021 **Brown University**
M.S. in Computer Science
Advisor: Stefanie Tellex
- 2017 **University of California, Berkeley**
B.S. in Electrical Engineering and Computer Sciences
Advisor: Ken Goldberg and David Wagner

Publications

- IROS 2024 **Lang2LTL-2: Grounding Spatiotemporal Navigation Commands Using Large Language and Vision-Language Models**
J.X. Liu, A. Shah, G. Konidaris, S. Tellex, and D. Paulius
IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2024. [website]
- IJCAI 2024 **A Survey of Robotic Language Grounding: Tradeoffs between Symbols and Embeddings**
V. Cohen*, **J.X. Liu***, R. Mooney*, S. Tellex*, D. Watkins*
International Joint Conference on Artificial Intelligence (IJCAI) 2024 Survey Track. [PDF]
- ICRA 2024 **LTL-Transfer: Skill Transfer for Temporally-Extended Task Specifications**
J.X. Liu*, A. Shah*, E. Rosen, M. Jia, G.D. Konidaris, S. Tellex
IEEE International Conference on Robotics and Automation (ICRA) 2024. [PDF, Website]
- CoRL 2023 **Grounding Complex Natural Language Commands for Temporal Tasks in Unseen Environments**
J.X. Liu*, Z. Yang*, I. Idrees, S. Liang, B. Schornstein, S. Tellex, A. Shah
Conference on Robot Learning (CoRL) 2023. [PDF, Website, Brown News]
AAAI Fall Symposium on Unifying Representations for Robot Application Development (UR-RAD) 2023. **Best Paper Finalist**.
- INTERSPEECH 2023 **Style-transfer based Speech and Audio-visual Scene Understanding for Robot Action Sequence Acquisition from Videos**
C. Hori, P. Peng, D. Harwath, **J.X. Liu**, K. Ota, S. Jain, R. Corcodel, D. Jha, D. Romeres, J. Le Roux
INTERSPEECH 2023. [PDF]
- ICRA 2022 **Generalizing to New Domains by Mapping Natural Language to Lifted LTL**
E. Hsiung, H. Mehta, J. Chu, **J.X. Liu**, R. Patel, S. Tellex, G. D. Konidaris
IEEE International Conference on Robotics and Automation (ICRA) 2022. [PDF]
- ACNS 2020 **Minority Reports Defense: Defending Against Adversarial Patches**
M. McCoyd, W. Park, S. Chen, N. Shah, R. Roggenkemper, M. Hwang, **J.X. Liu**, D. Wagner
Applied Cryptography and Network Security Workshops (ACNS) 2020. [PDF]
- ICRA 2018 **Dex-Net 3.0: Computing Robust Vacuum Suction Grasp Targets in Point Clouds Using a New Analytic Model and Deep Learning**
J. Mahler, M. Matl, **J.X. Liu**, A. Li, D. Gealy, K. Goldberg
IEEE International Conference on Robotics and Automation (ICRA) 2018. [PDF, Website]

- ICISS 2018 **Detecting Phone Theft Using Machine Learning**
J.X. Liu, D. Wagner, S. Egelman
International Conference on Information Science and System (ICISS) 2018. [PDF]
- RSS 2017 **Dex-Net 2.0: Deep Learning to Plan Robust Grasps with Synthetic Point Clouds and Analytic Grasp Metrics**
J. Mahler, J. Liang, S. Niyaz, M. Laskey, R. Doan, **J.X. Liu**, J. A. Ojea, K. Goldberg
Robotics: Science and Systems (RSS) 2017. [PDF, Website]

Invited Talks

- Oct 2024 UT Austin, Forum for Artificial Intelligence
Oct 2024 CU Boulder, CS Colloquium
Sep 2024 MIT, Interactive Robotics Group
Sep 2024 UT Austin, Center of Autonomy
Aug 2024 Arizona State, Logos Robotics Lab
Jul 2024 Oxford, CS Department Seminar
Oct 2022 Northeast Robotics Colloquium

Workshop Organization

- RSS 2024 Workshop on Task Specification for General-Purpose Intelligent Robots. [Website]

Industry Experience

- Summer 2022 **Research Intern**, *Mitsubishi Electric Research Laboratories*, Cambridge, MA
Summer 2015 **Software Engineer**, *NetSuite*, San Mateo, CA

Fellowships, Awards and Honors

- Brown **National Science Foundation Graduate Research Fellowship Program**, 2018
Jack Kent Cooke Foundation Graduate Scholarship, 2018
- UC Berkeley **Tau Beta Pi, National Engineering Honor Society**, 2014
Eta Kappa Nu, National EECS Honor Society, 2014
Jack Kent Cooke Foundation Undergraduate Transfer Scholarship, 2014

Mentorship

- 2024 - Lekai Chen (CU Boulder Ph.D.)
2024 - Ivy He (Brown Ph.D.)
2023 - Yichen Wei (Brown Master's)
- 2023 - 2024 Anneke Wernerfelt (Haverford Undergraduate. Now Master's at UPenn)
2023 - 2024 Sofia Juliani (Rutgers Undergraduate)
Spring 2021 Shihab Khalfalla (UConn Undergraduate. Now at Microsoft)
2021 - 2022 Eric Hsiung (Brown Master's. Now Ph.D. at UT Austin)
2020 - 2021 Tyler Edwards (UPenn Undergraduate. Now Master's at UPenn)
2020 - 2021 Suchen Zheng (Brown Master's. Now Ph.D. at Yale)

Service

- Brown **First-year Ph.D. student mentor**, 2021-2023
Google exploreCSR (explorecsr.cs.brown.edu), Spring 2021
- Review **CoRL-W 2024, RSS-W 2024, IROS 2024, ICRA 2023, ICRA 2022**