

# Jason Xinyu Liu

⌂ [jasonxyliu.github.io](https://jasonxyliu.github.io)  
✉ [xinyu\\_liu@brown.edu](mailto:xinyu_liu@brown.edu)

## Education

- 2018 – 2025 **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

## 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

## Publications

- RA-L 2025 **Open-vocabulary Pick and Place via Patch-level Semantic Maps**  
M.Jia, H. Huang, Z. Zhang, C. Wang, L. Zhao, D. Wang, **J.X. Liu**, R. Walters , R. Platt , S. Tellex  
*IEEE Robotics and Automation Letters (RA-L) 2025.*
- 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 **Style-transfer based Speech and Audio-visual Scene Understanding for Robot Action**  
2023 **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. Tellez, 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 2025 UIUC, CS Colloquium  
Oct 2025 Tufts, HRI Seminar  
Jan 2025 USC, Robotics Seminar  
Dec 2024 Brown, Brown Database Group  
Oct 2024 Amazon Robotics, Amazon Robotics Research Fall Symposium and PhD Communication Competition  
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

## Guest Lectures

- Spring 2025 Brown, CSCI 1470: Deep Learning  
Fall 2024 Brown, CSCI 1951X: Formal Proof and Verification

## 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

## Mentorship

2024 - 2025 Lekai Chen (CU Boulder Ph.D.)

2024 - 2025 Ivy He (Brown Ph.D.)

2023 - 2025 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](http://exploreCSR.cs.brown.edu)), Spring 2021

Review **JMLR** 2025, **CoRL-W** 2024, **RSS-W** 2024, **IROS** 2024, **ICRA** 2023, **ICRA** 2022