

Dian Wang

🌐 dianwang.io | 🐦 @Dian_Wang_ | 🎓 Google Scholar
📺 Youtube | 📄 GitHub | ✉ dianwang@stanford.edu

RESEARCH INTERESTS

Robot Learning, Geometric Deep Learning, Robotic Manipulation and Grasping, Reinforcement Learning

EMPLOYMENT

Stanford University <i>Postdoctoral Researcher. Advisors: Prof. Shuran Song, Prof. Jeannette Bohg</i>	Stanford, CA, USA July 2025 – Present
Boston Dynamics AI Institute <i>Research Intern</i>	Cambridge, MA, USA May 2023 – Aug. 2023; May 2024 – Aug. 2024

EDUCATION

Northeastern University <i>Ph.D. in Computer Science. Advisors: Prof. Robert Platt, Prof. Robin Walters</i> <i>M.S. in Computer Science; GPA: 4.00/4.00</i>	Boston, MA, USA Jan. 2020 – June 2025 Sept. 2017 – Dec. 2019
Sichuan University <i>B.Eng. in Computer Science and Engineering; GPA: 3.56/4.00</i>	Chengdu, China Sept. 2013 – June 2017

PUBLICATIONS

CONFERENCE PAPERS

- C23 **D. Wang**, B. Hu, S. Song, R. Walters[†], and R. Platt[†]. A practical guide for incorporating symmetry in diffusion policy. In *Conference on Neural Information Processing Systems (NeurIPS)*, 2025. [Link](#)
- C22 B. Hu, **D. Wang**[✉], D. Klee, H. Tian, X. Zhu, H. Huang, R. Platt, and R. Walters. 3d equivariant visuomotor policy learning via spherical projection. In *Conference on Neural Information Processing Systems (NeurIPS)*, 2025. **Spotlight**. [Link](#)
- C21 H. Zhao*, **D. Wang**[✉], Y. Zhu, X. Zhu, O. Howell, L. Zhao, Y. Qian, R. Walters, and R. Platt. Hierarchical equivariant policy via frame transfer. In *International Conference on Machine Learning (ICML)*, 2025. [Link](#)
- C20 H. Huang, H. Liu, **D. Wang**, R. Walters[†], and R. Platt[†]. Match policy: A simple pipeline from point cloud registration to manipulation policies. In *International Conference on Robotics and Automation (ICRA)*, 2025. [Link](#)
- C19 **D. Wang**, S. Hart, D. Surovik, T. Kelestemur, H. Huang, H. Zhao, M. Yeatman, J. Wang, R. Walters, and R. Platt. Equivariant diffusion policy. In *Conference on Robot Learning (CoRL)*, 2024. **Outstanding Paper Award Finalist**. [Link](#)
- C18 B. Hu, X. Zhu*, **D. Wang***, Z. Dong*, H. Huang*, C. Wang*, R. Walters, and R. Platt. Orbitgrasp: Se(3)-equivariant grasp learning. In *Conference on Robot Learning (CoRL)*, 2024. [Link](#)
- C17 H. Huang, K. Schmeckpeper*, **D. Wang***, O. Biza, Y. Qian, H. Liu, M. Jia, R. Platt, and R. Walters. Imagination policy: Using generative point cloud models for learning manipulation policies. In *Conference on Robot Learning (CoRL)*, 2024. [Link](#)
- C16 H. Huang, O. L. Howell*, **D. Wang***, X. Zhu*, R. Platt[†], and R. Walters[†]. Fourier transporter: Bi-equivariant robotic manipulation in 3d. In *International Conference on Learning Representations (ICLR)*, 2024. [Link](#)
- C15 **D. Wang**, X. Zhu, J. Y. Park, R. Platt, and R. Walters. A general theory of correct, incorrect, and extrinsic equivariance. In *Conference on Neural Information Processing Systems (NeurIPS)*, 2023. [Link](#)
- C14 H. H. Nguyen, D. Klee, A. Baisero, **D. Wang**, R. Platt, and C. Amato. Equivariant reinforcement learning under partial observability. In *Conference on Robot Learning (CoRL)*, 2023. [Link](#)
- C13 **D. Wang**, J. Y. Park, N. Sortur, L. L. Wong, R. Walters[†], and R. Platt[†]. The surprising effectiveness of equivariant models in domains with latent symmetry. In *International Conference on Learning Representations (ICLR)*, 2023. **Spotlight**. [Link](#)
- C12 M. Jia*, **D. Wang***, G. Su, D. Klee, X. Zhu, R. Walters, and R. Platt. Seil: Simulation-augmented equivariant imitation learning. In *International Conference on Robotics and Automation (ICRA)*, 2023. [Link](#)

- C11 H. Huang, **D. Wang**, X. Zhu, R. Walters, and R. Platt. Edge grasp network: A graph-based SE(3)-invariant approach to grasp detection. In *International Conference on Robotics and Automation (ICRA)*, 2023. [Link](#)
- C10 **D. Wang**, M. Jia, X. Zhu, R. Walters, and R. Platt. On-robot learning with equivariant models. In *Conference on Robot Learning (CoRL)*, 2022. [Link](#)
- C9 H. H. Nguyen, A. Baisero, **D. Wang**, C. Amato, and R. Platt. Leveraging fully observable policies for learning under partial observability. In *Conference on Robot Learning (CoRL)*, 2022. [Link](#)
- C8 **D. Wang***, C. Kohler*, X. Zhu, M. Jia, and R. Platt. Bulletarm: An open-source robotic manipulation benchmark and learning framework. In *The International Symposium on Robotics Research (ISRR)*, 2022. [Link](#)
- C7 H. Huang, **D. Wang**, R. Walters, and R. Platt. Equivariant transporter network. In *Robotics: Science and Systems (RSS)*, 2022. [Link](#)
- C6 X. Zhu, **D. Wang**, O. Biza, G. Su, R. Walters, and R. Platt. Sample efficient grasp learning using equivariant models. In *Robotics: Science and Systems (RSS)*, 2022. [Link](#)
- C5 **D. Wang**, R. Walters, and R. Platt. SO(2)-equivariant reinforcement learning. In *International Conference on Learning Representations (ICLR)*, 2022. **Spotlight**. [Link](#)
- C4 **D. Wang**, R. Walters, X. Zhu, and R. Platt. Equivariant Q learning in spatial action spaces. In *Conference on Robot Learning (CoRL)*, 2021. [Link](#)
- C3 O. Biza, **D. Wang**, R. Platt, J.-W. van de Meent, and L. L. Wong. Action priors for large action spaces in robotics. In *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, 2021. [Link](#)
- C2 **D. Wang**, C. Kohler, and R. Platt. Policy learning in SE(3) action spaces. In *Conference on Robot Learning (CoRL)*, 2020. [Link](#)
- C1 **D. Wang**, C. Kohler, A. ten Pas, A. Wilkinson, M. Liu, H. Yanco, and R. Platt. Towards assistive robotic pick and place in open world environments. In *The International Symposium on Robotics Research (ISRR)*, 2019. [Link](#)

JOURNAL PAPERS

- J5 B. Hu*, H. Tian*, **D. Wang**[✉], H. Huang, X. Zhu, R. Walters, and R. Platt. Push-grasp policy learning using equivariant models and grasp score optimization. *IEEE Robotics and Automation Letters (RAL)*, 2025. [Link](#)
- J4 M. Jia, H. Huang, Z. Zhang, C. Wang, L. Zhao, **D. Wang**, J. X. Liu, R. Walters, R. Platt, and S. Tellex. Learning efficient and robust language-conditioned manipulation using textual-visual relevancy and equivariant language mapping. *IEEE Robotics and Automation Letters (RAL)*, 2025. [Link](#)
- J3 H. Huang, **D. Wang**, A. Tangri, R. Walters, and R. Platt. Leveraging pick and place symmetries. *The International Journal of Robotics Research (IJRR)*, 2024. [Link](#)
- J2 X. Zhu, **D. Wang**, G. Su, O. Biza, R. Walters, and R. Platt. On robot grasp learning using equivariant models. *Autonomous Robots*, 2023. [Link](#)
- J1 A. Wilkinson, M. Gonzales, P. Hoey, D. Kontak, **D. Wang**, N. Tornare, A. Sinclair, Z. Han, J. Allspaw, R. Platt, and H. Yanco. Design guidelines for human-robot interaction with assistive robot manipulation systems. *Paladyn, Journal of Behavioral Robotics*, 2021. [Link](#)

WORKSHOP PAPERS

- W9 **D. Wang**, J. Y. Park, X. Zhu, N. Sortur, M. Jia, G. Su, L. Wong, R. Walters, and R. Platt. Correct, incorrect and extrinsic equivariance. In *ICML 2024 Workshop on Geometric-Grounded Representation Learning and Generative Modelling*, 2024
- W8 M. Jia, H. Huang, Z. Zhang, C. Wang, L. Zhao, **D. Wang**, J. X. Liu, R. Walters, R. Platt, and S. Tellex. Equivariant open-vocabulary pick and place via language kernels and patch-level semantic maps. In *RSS 2024 Workshop on Task Specification for General-Purpose Intelligent Robots*, 2024
- W7 **D. Wang**, J. Y. Park, N. Sortur, L. Wong, R. Walters, and R. Platt. The surprising effectiveness of equivariant models in domains with latent symmetry. In *NeurIPS 2023 Workshop on Symmetry and Geometry in Neural Representations*, 2023
- W6 **D. Wang***, M. Jia*, G. Su, D. Klee, X. Zhu, R. Walters, and R. Platt. Seil: Simulation-augmented equivariant imitation learning. In *CoRL 2022 Workshop on Sim-to-Real Robot Learning: Locomotion and Beyond*, 2022
- W5 H. Huang, **D. Wang**, X. Zhu, R. Walters, and R. Platt. Edge grasp network. In *CoRL 2022 Workshop on Sim-to-Real Robot Learning: Locomotion and Beyond*, 2022
- W4 **D. Wang**, X. Zhu, R. Walters, O. Biza, G. Su, and R. Platt. Equivariant Q learning in spatial action spaces. In *RSS 2022 Workshop on Scaling Robot Learning*, 2022

- W3 **D. Wang**, R. Walters, M. Jia, X. Zhu, and R. Platt. Equivariant reinforcement learning for robotic manipulation. In *ICRA 2022 Workshop on Scaling Robot Learning*, 2022
- W2 X. Zhu, **D. Wang**, O. Biza, G. Su, R. Walters, and R. Platt. Sample efficient grasp learning using equivariant models. In *ICRA 2022 Workshop on Scaling Robot Learning*, 2022
- W1 H. Huang, **D. Wang**, R. Walters, and R. Platt. Equivariant transporter network. In *ICRA 2022 Workshop on Scaling Robot Learning*, 2022. **Best Paper Award Finalist**

PREPRINTS

- P2 X. Zhu, D. Klee*, **D. Wang***, B. Hu, H. Huang, A. Tangri, R. Walters, and R. Platt. Coarse-to-fine 3d keyframe transporter. [Link](#)
- P1 A. Tangri, O. Biza, **D. Wang**, D. Klee, O. L. Howell, and R. Platt. Equivariant offline reinforcement learning. [Link](#)

HONORS AND AWARDS

Outstanding PhD Student Award in Research	Northeastern University	<i>Apr. 2025</i>
Outstanding Paper Award Finalist	Conference on Robot Learning (CoRL) 2024	<i>Nov. 2024</i>
2023 JPMorgan Chase Ph.D. Fellowship	JPMorgan Chase	<i>June 2023</i>
Best Paper Award Finalist	ICRA 2022 Scaling Robot Learning Workshop	<i>May 2022</i>
Khoury College Graduate Research Fellowship	Northeastern University	<i>Aug. 2019</i>

TEACHING

Teaching Assistant		
<i>Reinforcement Learning and Sequential Decision Making (Northeastern CS5180), Prof. Chris Amato</i>		<i>Fall 2024</i>
Guest Lecture on Equivariant Policy Learning for Robotic Manipulation		
<i>Algorithmic Robotics (Rice University Comp550), Prof. Lydia Kavraki</i>		<i>Nov. 2024</i>
Guest Lecture on Equivariant Reinforcement Learning for Robotic Manipulation		
<i>Reinforcement Learning and Sequential Decision Making (Northeastern CS5180), Prof. Lawson Wong</i>		<i>Apr. 2024</i>
Guest Lecture on Equivariant Learning for Robotic Manipulation		
<i>Geometric Deep Learning (Northeastern CS7180), Prof. Robin Walters</i>		<i>Apr. 2023</i>
Guest Lecture on Leveraging SE(2) Symmetries in Robot Learning		
<i>Robotics Science and Systems (Northeastern CS5335), Prof. Robert Platt</i>		<i>Mar. 2022</i>

MENTORING

Yizhe Zhu	M.S. at Northeastern		<i>Oct. 2024 - Present</i>
Haibo Zhao	M.S. at Northeastern		<i>Nov. 2023 - Present</i>
Rachel Lim	M.S. at Northeastern		<i>Oct. 2024 - May 2025</i>
Mingxi Jia	M.S. at Northeastern	→ Ph.D. Student at Brown	<i>Dec. 2021 - May 2023</i>
Guanang Su	M.S. at Northeastern	→ Ph.D. Student at Univ. of Minnesota	<i>Dec. 2021 - May 2023</i>
Neel Sortur	Undergrad. at Northeastern	→ M.S. Student at Northeastern	<i>May 2021 - Oct. 2022</i>
Zhengyi Ou	M.S. at Northeastern	→ Software Engineer at Medtronic	<i>Sept. 2020 - Dec. 2021</i>
Yida Niu	M.S. at Northeastern	→ Ph.D. Student at Peking University	<i>Sept. 2020 - Aug. 2021</i>

PROFESSIONAL SERVICE

Lead Organizer, RSS 2023 Workshop on Symmetries in Robot Learning
Organizer, RSS 2024 Workshop on Geometric and Algebraic Structure in Robot Learning
Organizer, Stanford Robotics Seminar
Associate Editor, ICRA 2026
Reviewer: RSS 2025. IJRR 2024. ICML 2024. ICLR 2023-2025. NeurIPS 2023, 2025. ICRA 2019, 2022-2024. CoRL 2022-2025. IROS 2021, 2023, 2025. RAL 2022-2024. T-RO 2022.

MEDIA COVERAGE

Khoury Story: Dian on Researching Machine Learning and Robotics, Link	<i>June 2024</i>
Institute for Experiential Robotics Newsletter, Dian Wang - CoRL 2022 Presentation	<i>Jan. 2023</i>
Northeastern Global News, photo by Matthew MODOONO, Link	<i>Sept. 2020</i>
IEEE Spectrum Video Friday, Link	<i>Sept. 2019</i>

OUTREACH

AI in Action - Everyday Robotics, presentation and demo at Northeastern University Apr. 2024

TALKS AND ORAL PRESENTATIONS

Equivariant Policy Learning for Robotic Manipulation

McGill University Nov. 2024
WPI Nov. 2024
UT Austin Nov. 2024
Texas A&M University Nov. 2024
TU Munich Nov. 2024
Next-Gen Robot Learning Symposium at TU Darmstadt Nov. 2024
Stanford University Oct. 2024
University of California, San Diego Oct. 2024
Boston University Oct. 2024
GRASP SFI Seminar, University of Pennsylvania Sept. 2024
University of Washington Sept. 2024
Carnegie Mellon University June 2024
Brown University June 2024; Apr. 2023
Boston Robotics Speaker Series, presented by Universal Robots Mar. 2023

Equivariant Diffusion Policy

Munich, Germany

Conference on Robot Learning (CoRL) 2024 Nov. 2024

Pushing the Limits of Equivariant Neural Networks (with Robin Walters)

Cambridge, MA, USA

NeurReps Global Speaker Series at MIT Oct. 2024

Equivariant Models for Long-Horizon Manipulation

Cambridge, MA, USA

Boston Dynamics AI Institute Mar. 2024

The Surprising Effectiveness of Equivariant Models in Domains with Latent Symmetry

Kigali, Rwanda

International Conference on Learning Representations (ICLR) 2023 May 2023

Equivariant Q Learning in Spatial Action Spaces

New York City, NY, USA

RSS 2022 Workshop on Scaling Robot Learning June 2022

SO(2)-Equivariant Reinforcement Learning for Robotic Manipulation

Philadelphia, PA, USA

ICRA 2022 Workshop on Scaling Robot Learning May 2022

Towards Assistive Robotic Pick and Place in Open World Environments

Hanoi, Vietnam

The International Symposium on Robotics Research (ISRR) 2019 Dec. 2019