

Dian Wang

🌐 dianwang.io | 🐦 @Dian_Wang_ | 🎓 Google Scholar
📺 YouTube | 🐙 GitHub | @ dianwang@um.edu.mo

RESEARCH INTERESTS

Embodied AI, Robot Learning, Robotic Manipulation, Geometric Deep Learning, Reinforcement Learning

EMPLOYMENT

University of Macau <i>Assistant Professor</i>	Macau SAR, China <i>Aug. 2026 – Present</i>
Stanford University <i>Postdoctoral Scholar. Advisors: Prof. Shuran Song, Prof. Jeannette Bohg</i>	Stanford, CA, USA <i>July 2025 – July 2026</i>
Boston Dynamics AI Institute <i>Research Intern</i>	Cambridge, MA, USA <i>May 2023 – Aug. 2023; May 2024 – Aug. 2024</i>

EDUCATION

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

PUBLICATIONS

CONFERENCE PAPERS

- C25 X. Xu, J. Park, H. Zhang, E. Cousineau, A. Bhat, J. Barreiros, **D. Wang**, J. Bohg, and S. Song. Hommi: Learning whole-body mobile manipulation from human demonstrations. In *Robotics: Science and Systems (RSS)*, 2026. [Link](#)
- C24 D. Klee*, B. Hu*, A. Cole, H. Tian, **D. Wang**, R. Platt[†], and R. Walters[†]. RAVEN: End-to-end equivariant robot learning with RGB cameras. In *International Conference on Learning Representations (ICLR)*, 2026. [Link](#)
- 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

- J8 **D. Wang**, S. Hart, D. Surovik, T. Kelestemur, H. Huang, H. Zhao, M. Yeatman, X. Zhu, B. Hu, M. Jia, J. Wang, R. Walters, and R. Platt. Equivariant diffusion policy for sample-efficient robotic manipulation. *The International Journal of Robotics Research (IJRR)*, 2026. [Link](#)
- J7 Y. Zhu, Z. Ye, B. Hu, H. Zhao, Y. Qi, **D. Wang**[†], and R. Platt[†]. Residual rotation correction using tactile equivariance. *IEEE Robotics and Automation Letters (RAL)*, 2026. [Link](#)
- J6 H. Zhao, Y. Qi, B. Hu, Y. Zhu, Z. Chen, H. Tian, X. Zhu, O. Howell, H. Huang, R. Walters, **D. Wang**[†], and R. Platt[†]. Generalizable hierarchical skill learning via object-centric representation. *IEEE Robotics and Automation Letters (RAL)*, 2026. [Link](#)
- 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. **Best Paper Award Honorable Mention**. [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](#)

PREPRINTS

- P5 **D. Wang***, J. Park*, X. Xu, H. Zhang, S. Song[†], and J. Bohg[†]. Mixture of frames policy: Multi-frame action denoising for bimanual mobile manipulation. [Link](#)
- P4 H. Huang, Z. Ye, L. Zhao, B. Hu, M. Jia, Y. Qi, A. Agha, **D. Wang**, R. Platt, and R. Walters. Action map policy: Learning 3D closed-loop manipulation via pixel classification. [Link](#)
- P3 H. Huang, L. Zhao, H. Liu, Z. Ye, S.-Y. Huang, M. Jia, B. Hu, F. Lin, Y. Qi, **D. Wang**, R. Walters, and R. Platt. Pix2Act: Image-space manipulation policies with equivariant augmentation. [Link](#)
- 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

Best Paper Award Honorable Mention	IEEE Robotics and Automation Letters (RAL)	<i>May 2026</i>
Stanford HAI Fellowship	Stanford University	<i>July 2025</i>
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

Guest Lecture on Equivariant Policy Learning for Robotic Manipulation		
<i>Introduction to Robotics (Stanford CS223A), Prof. Oussama Khatib, Shameek Ganguly</i>		<i>Feb. 2026</i>
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

Jisang Park	M.S. at Stanford		<i>Sept. 2025 - Present</i>
Yizhe Zhu	M.S. at Northeastern		<i>Oct. 2024 - Present</i>
Haibo Zhao	M.S. at Northeastern	→ Ph.D. Student at Univ. of Washington	<i>Nov. 2023 - Dec. 2025</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, 2025-2026

Associate Editor, ICRA 2026

Reviewer: RSS 2026, 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	<i>Apr. 2024</i>
--	------------------

TALKS

Leveraging Geometric Symmetry in Robotic Policy Learning	Vienna, Austria
<i>3rd Tutorial on Geometric Methods in Robot Learning, Optimization and Control at ICRA 2026</i>	<i>June 2026</i>
Equivariant Policy Learning for Robotic Manipulation	Boston, MA, USA
<i>Boston Symmetry Day</i>	<i>Mar. 2025</i>
Equivariant Policy Learning for Robotic Manipulation	Darmstadt, Germany
<i>Next-Gen Robot Learning Symposium, TU Darmstadt</i>	<i>Nov. 2024</i>
Pushing the Limits of Equivariant Neural Networks (with Robin Walters)	Cambridge, MA, USA
<i>NeurReps Global Speaker Series at MIT</i>	<i>Oct. 2024</i>
Equivariant Policy Learning for Robotic Manipulation	Philadelphia, PA, USA
<i>GRASP SFI Seminar, University of Pennsylvania</i>	<i>Sept. 2024</i>
Equivariant Models for Long-Horizon Manipulation	Cambridge, MA, USA
<i>Boston Dynamics AI Institute</i>	<i>Mar. 2024</i>
Equivariant Policy Learning for Robotic Manipulation	Boston, MA, USA
<i>Boston Robotics Speaker Series Presented by Universal Robots</i>	<i>Mar. 2023</i>