

# HAOJIE HUANG

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## EDUCATION

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<b>Doctor of Philosophy</b>   <i>Computer Science</i> Northeastern University	Sep. 2021 – Now Boston, MA
<b>Master of Science</b>   <i>Robotics</i> Northeastern University	Sep. 2018 – May 2021 Boston, MA
<b>Bachelor of Engineering</b>   <i>Mechanical Engineering</i> Shandong University	Sep. 2013 – May 2017 Jinan, China

## WORK EXPERIENCE

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<b>Applied Scientist Intern</b> Amazon Robotics <ul style="list-style-type: none"><li>Worked on closed-loop Imitation learning algorithm</li></ul>	Sep 2024 – Jan 2025 North Reading, MA
<b>Research Scientist Intern</b> Boston Dynamics AI Institute <ul style="list-style-type: none"><li>Worked on the machine intelligence and robot learning algorithm</li></ul>	Sep 2023 – Jan 2024 Cambridge, MA
<b>R&amp;D Intern</b> SharkNinja Corp. <ul style="list-style-type: none"><li>Worked on the hardware(sensors, motors and etc.) and software(control algorithms, path planning and etc.) for robotic vacuums</li></ul>	June 2019 – Dec 2019 Needham, MA

## TEACHING EXPERIENCE

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<b>Robotic Science and System (CS5335-Teaching Assistant)</b> Northeastern University	Spring 2021 Boston, MA
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## RESEARCH AREA

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Manipulation, 2/3D Perception, Robot Learning, Geometric Deep Learning, Machine learning

## AWARD

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<b>Best Paper Award Finalist on Scaling Robot Learning Workshop of ICRA 2022</b> Philadelphia, United States	May 2022
<b>Outstanding Paper Finalist at Conference on Robot Learning (CoRL) 2024</b> Munich, Germany	Nov 2024

## PROFESSIONAL CONTRIBUTION

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Reviewer of IROS (2023, 2024, 2025), RAL (2023, 2024, 2025), ICRA (2023, 2024, 2025), TRO 2025, ICLR 2025, RSS 2025, ICML 2026; Invited Talk in Next-Gen Robot Learning Symposium at TU Darmstadt (2024); Program Committee Member of Workshop on Symmetries in Robot Learning at RSS 2023.

## FIRST-AUTHOR PUBLICATIONS

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- Match Policy: A Simple Pipeline from Point Cloud Registration to Manipulation Policies** May 2025  
*Haojie Huang et al. (Contribution: first author)*  
• *International Conference on Robotics and Automation, Atlantic, ICRA 2025*
- Open-vocabulary Pick and Place via Patch-level Semantic Maps** June 2024  
*Mingxi Jia et al. (Contribution: co-first author)*  
• *IEEE Robotics and Automation Letters 2025*
- Imagination Policy: Using Generative Point Cloud Models for Manipulation Policies** June 2024  
*Haojie Huang et al. (Contribution: first author)*  
• *Conference on Robot Learning, Munich, CoRL 2024*
- Fourier Transporter: Bi-Equivariant Robotic Manipulation in 3D** Sep 2023  
*Haojie Huang et al. (Contribution: first author)*  
• *International Conference on Learning Representations, Vienna, ICLR 2024*
- Language-conditioned Equivariant Grasp** Sep 2023  
*Haojie Huang et al. (Contribution: first author)*  
• *Arxiv Preprint*
- Leveraging Pick and Place Symmetries** March 2023  
*Haojie Huang et al. (Contribution: first author)*  
• *International Journal of Robotics Research, Volume 43, Issue 4, 2024*
- Edge Grasp Network: A Graph-Based SE(3)-invariant Approach to Grasp Detection** Dec 2022  
*Haojie Huang et al. (Contribution: first author)*  
• *International Conference on Robotics and Automation, London, ICRA 2023*  
• *Sim-to-Real Robot Learning, CoRL 22 workshop, Auckland*  
• *Symmetries in Robot Learning, RSS 2023 workshop, Daegu*
- Equivariant Transporter Network** June 2022  
*Haojie Huang et al. (Contribution: first author)*  
• *Robotics Science and System, New York, RSS 2022*  
• *Scaling Robot Learning, ICRA 22 workshop, Philadelphia, Best Paper Award Finalists*  
• *Reinforcement Learning and Decision Making, RLDM 2022, Rhode Island*
- Graph Attention Shape Completion Network** Dec 2021  
*Haojie Huang et al. (Contribution: first author)*  
• *International Conference on 3D Vision, London, 3DV 2021*

## COLLABORATED PUBLICATIONS

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- Equivariant diffusion policy for sample-efficient robotic manipulation** Feb 2026  
*Dian Wang et al. (Contribution: collaborator)*  
• *International Journal of Robotics Research, IJRR 2026*
- Generalizable Hierarchical Skill Learning via Object-Centric Representation** Oct 2025  
*Haibo Zhao et al. (Contribution: collaborator)*  
• *IEEE Robotics and Automation Letters 2026*
- Accelerating Model-Based Reinforcement Learning Using Equivariance** Sep 2025  
*Ahmed Agha et al. (Contribution: collaborator)*  
• *Northeast Robotics Colloquium - NERC 2025*  
• *preprint - under review*
- Clebsch-Gordan Transformer: Fast and Global Equivariant Attention** Sep 2025  
*Owen Howell et al. (Contribution: collaborator)*  
• *Arxiv Preprint - Under Review*

<b>BEAR: Benchmarking and Enhancing Multimodal Language Models for Embodied AI</b> <i>Yu Qi et al. (Contribution: senior collaborator)</i> <ul style="list-style-type: none"> <li>• Arxiv Preprint - Under Review</li> </ul>	Sep 2025
<b>Equivariant Goal Conditioned Contrastive Reinforcement Learning</b> <i>Arsh Tangri et al. (Contribution: senior collaborator)</i> <ul style="list-style-type: none"> <li>• Arxiv Preprint -Under Review</li> </ul>	July 2025
<b>3D Equivariant Visuomotor Policy Learning via Spherical Projection</b> <i>Boce Hu et al. (Contribution: collaborator)</i> <ul style="list-style-type: none"> <li>• Conference on Neural Information Processing Systems, San Diego , NeurIPS 2025</li> </ul>	June 2025
<b>Push-Grasp Policy Learning Using Equivariant Models and Grasp Score Optimization</b> <i>Boce Hu et al. (Contribution: collaborator)</i> <ul style="list-style-type: none"> <li>• IEEE Robotics and Automation Letters 2025</li> </ul>	April 2025
<b>Coarse-to-Fine 3D Keyframe Transporter</b> <i>Xupeng Zhu et al. (Contribution: collaborator)</i> <ul style="list-style-type: none"> <li>• preprint - under review</li> </ul>	Feb 2025
<b>OrbitGrasp: SE(3)-Equivariant Grasp Learning</b> <i>Boce Hu et al. (Contribution: co-second author)</i> <ul style="list-style-type: none"> <li>• Conference on Robot Learning, Munich, CoRL 2024</li> </ul>	June 2024
<b>Equivariant Diffusion Policy</b> <i>Dian Wang et al. (Contribution: collaborator)</i> <ul style="list-style-type: none"> <li>• Conference on Robot Learning, Munich, CoRL 2024, Outstanding Paper Finalist</li> </ul>	June 2024
<b>ThinkGrasp: A Vision-Language System for Strategic Part Grasping in Clutter</b> <i>Yaoyao Qian et al. (Contribution: collaborator)</i> <ul style="list-style-type: none"> <li>• Conference on Robot Learning, Munich, CoRL 2024</li> </ul>	June 2024