

# SEIJI SHAW

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<b>CONTACT</b>	51 Vassar St., Rm. 633 Cambridge MA, 02139	seijis@mit.edu 415-699-4234
<b>EDUCATION</b>	<i>Ph.D. Electrical Engineering and Computer Science</i> Massachusetts Institute of Technology, Cambridge, MA Advisor: Prof. Nicholas Roy	2022-Present
	<i>M.S. Electrical Engineering and Computer Science</i> Massachusetts Institute of Technology, Cambridge, MA Advisor: Prof. Nicholas Roy Thesis: <i>Characterizing the Epistemic Uncertainty of Predictive Action Models and Sampling-Based Motion Planners for Robotic Manipulation</i>	2022-2024
	<i>Sc.B. Mathematics-Computer Science, magna cum laude</i> Brown University, Providence, RI Advisor: Prof. George Konidaris Honors Thesis: <i>Towards Safe Learning in Robotic Manipulation</i>	2018-2022
<b>EMPLOYMENT</b>	<i>Graduate Researcher</i> Computer Science and Artificial Intelligence Lab, MIT Robust Robotics Group (PI: Nicholas Roy)	2022-Present
	<i>Undergraduate Researcher</i> Department of Computer Science, Brown University Intelligent Robot Lab (PI: George Konidaris)	2020-2022
	<i>Research Intern</i> Mitsubishi Electric Research Laboratories, Cambridge, MA Data Analytics Group (PI: Daniel Nikovski)	Summer 2021
<b>AWARDS AND HONORS</b>	<i>Best Paper in Robot Manipulation Award Finalist, ICRA</i>	2024
	<i>Senior Prize, Brown University Dept. of Computer Science</i>	2022
	<i>Sigma Xi, inducted</i>	2022
	<i>Outstanding Winner, COMAP Mathematical Contest in Modelling</i>	2020
	<i>Rachel Carson Award, COMAP Mathematical Contest in Modelling</i>	2020
<b>GRANTS AND FELLOWSHIPS</b>	National Science Foundation Graduate Research Fellowship	2022-2025
	Ford Foundation Fellowship, Honorable Mention	2022
	Karen T. Romer Undergraduate Research and Teaching Award	2019
<b>PRE-PRINTS</b>	2. Seiji Shaw, Travis Manderson, Chad Kessens, and Nicholas Roy. Toward learning POMDPs beyond full-rank actions and state observability. <i>arXiv preprint arXiv:2601.18930</i> , 2026	
	1. Seiji Shaw, Aidan Curtis, Leslie Pack Kaelbling, Tomás Lozano-Pérez, and Nicholas Roy. Towards practical finite sample bounds for motion planning in tamp. <i>arXiv preprint arXiv:2407.17394</i> , 2024. (in press) <i>Algorithmic Foundations of Robotics</i>	

<b>PUBLICATIONS</b>	5. Michael Noseworthy, Seiji Shaw, Chad Kessens, and Nicholas Roy. Amortized inference for efficient grasp model adaptation. In <i>Proceedings of the International Conference on Robotics and Automation</i> , 2023	
	4. Thomas Cohn, Seiji Shaw, Max Simchowitz, and Russ Tedrake. Constrained bimanual planning with analytic inverse kinematics. In <i>Proceedings of the International Conference on Robotics and Automation</i> , 2023. <b>Best Paper in Robot Manipulation Award Finalist.</b>	
	3. Seiji Shaw, Devesh K Jha, Arvind Raghunathan, Radu Corcodel, Diego Romeres, George Konidaris, and Daniel Nikovski. Constrained dynamic movement primitives for safe learning of motor skills. In <i>Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems</i> , 2023	
	2. Seiji Shaw, Ben Abbatematteo, and George Konidaris. Rmps for safe impedance control in contact-rich manipulation. In <i>Proceedings of the International Conference on Robotics and Automation</i> , 2022	
	1. Tiffany Ding*, Soryan Kumar*, and Seiji Shaw*. A seabird population model to evaluate plastic pollution policies. <i>UMAP Journal of Undergraduate Mathematics and its Applications</i> , 41(3), 2020	
<b>TEACHING</b>	<i>Head Teaching Assistant, CSCI 1951R: Introduction to Robotics</i> Dept. Computer Science, Brown University Instructor: Stefanie Tellex	Fall 2020
<b>OUTREACH</b>	<i>Researcher on the Quest for Embodied Intelligence</i> Quest for Artificial Intelligence, Massachusetts Institute of Technology	Fall 2022-Present
	<i>Volunteer</i> IEEE/RSJ International Conference on Intelligent Robots and Systems	2023
	<i>Choreorobotics Mentor and Controls Engineer</i> Dept. Theatre and Performance Studies, Brown University	Spring-Summer 2022
	<i>Workshop Instructor</i> Brown Design Workshop, Dept. of Engineering, Brown University	2019-2020
	<i>Mentor, Team 6000 Firehawk Robotics</i> Shalhevet High School, Los Angeles, California	2018-2019
	<i>Mentor, Team 5987 Galaxia</i> Reali Hebrew Day School, Haifa, Israel	2017-2018
<b>REFEREEING</b>	IEEE International Conference on Robotics and Automation IEEE/RSJ International Conference on Intelligent Robots and Systems IEEE Robotics and Automation Letters IEEE Transactions on Automation Science and Engineering	2023, 2024, 2026 2025 2024, 2025 2024
<b>OTHER</b>	<i>Student Mashgiach, MIT GradHillel</i> <i>Shabbat Program Coordinator, MIT GradHillel</i> <i>Orthodox Student Community Liaison, Brown-RISD Hillel</i> <i>Blacher Outstanding New Student Initiatives Award, Brown-RISD Hillel</i>	2023-Present 2023-2024 2019-2021 2019