

SEIJI SHAW

CONTACT	51 Vassar St., Rm. 633 Cambridge MA, 02139	seijis@mit.edu 415-699-4234
EDUCATION	<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
EMPLOYMENT	<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
	<i>Research Intern</i> Cedars-Sinai Medical Center Hong Lab (PI: TingTing Hong)	Summers 2015, 2019
AWARDS AND HONORS	<i>Best Paper in Robot Manipulation Award Finalist, ICRA</i> <i>Senior Prize, Brown University Dept. of Computer Science</i> <i>Sigma Xi, inducted</i> <i>Outstanding Winner, COMAP Mathematical Contest in Modelling</i> <i>Rachel Carson Award, COMAP Mathematical Contest in Modelling</i>	2024 2022 2022 2020 2020
PRE-PRINTS	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>	
PUBLICATIONS	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 *Proceedings of the International Conference on Robotics and Automation*, 2023. **Best Paper in Robot Manipulation Award Finalist.**
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 *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems*, 2023
2. Seiji Shaw, Ben Abbatematteo, and George Konidaris. Rmps for safe impedance control in contact-rich manipulation. In *Proceedings of the International Conference on Robotics and Automation*, 2022
1. Tiffany Ding*, Soryan Kumar*, and Seiji Shaw*. A seabird population model to evaluate plastic pollution policies. *UMAP Journal of Undergraduate Mathematics and its Applications*, 41(3), 2020

GRANTS AND FELLOWSHIPS	National Science Foundation Graduate Research Fellowship	2022-2025
	Ford Foundation Fellowship, Honorable Mention	2022
	Karen T. Romer Undergraduate Research and Teaching Award	2019
TEACHING	<i>Head Teaching Assistant, CSCI 1951R: Introduction to Robotics</i> Dept. Computer Science, Brown University Instructor: Stefanie Tellex	Fall 2020
OUTREACH	<i>Technical Volunteer in Quest for Embodied Intelligence</i> Quest for Artificial Intelligence, Massachusetts Institute of Technology	Fall 2022-Present
	<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
REFEREING	IEEE International Conference on Robotics and Automation	2023
	IEEE International Conference on Robotics and Automation	2024
OTHER	<i>Shabbat Program Coordinator, MIT GradHillel</i>	2023-Present
	<i>Orthodox Student Community Liaison, Brown-RISD Hillel</i>	2019-2021
	<i>Blacher Outstanding New Student Initiatives Award, Brown-RISD Hillel</i>	2019