SEIJI SHAW

CONTACT

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Cambridge MA, 02139

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EDUCATION

Ph.D. in Electrical Engineering and Computer Science 2022-
Massachusetts Institute of Technology, Cambridge, MA
Advisor: Prof. Nicholas Roy

M.S. in Electrical Engineering and Computer Science 2022-
Massachusetts Institute of Technology, Cambridge, MA
Advisor: Prof. Nicholas Roy

Sc.B., with Honors, in Mathematics-Computer Science 2018-2022
Brown University, Providence, RI
Advisor: Prof. George Konidaris
Thesis: *Towards Safe Learning in Robotic Manipulation*

EMPLOYMENT

Graduate Researcher 2022 - Present
Computer Science and Artifical Intelligence Lab, MIT
Robust Robotics Group (PI: Nicholas Roy)

Undergraduate Researcher 2020 - 2022
Department of Computer Science, Brown University
Intelligent Robot Lab (PI: George Konidaris)

Research Intern Summer 2021
Mitsubishi Electric Research Laboratories, Cambridge, MA
Data Analytics Group (PI: Daniel Nikovski)

Research Intern Summers 2015, 2019
Cedars-Sinai Medical Center
Hong Lab (PI: TingTing Hong)

AWARDS AND HONORS

Senior Prize, Brown University Dept. of Computer Science 2022
Sigma Xi, inducted 2022
Outstanding Winner, COMAP Mathematical Contest in Modelling 2020
Rachel Carson Award, COMAP Mathematical Contest in Modelling 2020
Blacher Outstanding New Student Initiatives Award, Brown-RISD Hillel 2019

PUBLICATIONS

5. 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. *arXiv preprint arXiv:2209.14461*, 2022
4. Seiji Shaw, Ben Abbatematteo, and George Konidaris. Rmps for safe impedance control in contact-rich manipulation. In *2022 International Conference on Robotics and Automation*, pages 2707–2713. IEEE, 2022
3. 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

2. Yan Liu, Kang Zhou, Jing Li, Sosse Agvanian, Ana-Maria Caldaruse, Seiji Shaw, Tara C Hitzeman, Robin M Shaw, and TingTing Hong. In mice subjected to chronic stress, exogenous cbin1 preserves calcium-handling machinery and cardiac function. *Basic to Translational Science*, 5(6):561–578, 2020

1. Ying Fu, Seiji A Shaw, Robert Naami, Caresse L Vuong, Wassim A Basheer, Xiuqing Guo, and TingTing Hong. Isoproterenol promotes rapid ryanodine receptor movement to bridging integrator 1 (bin1)–organized dyads. *Circulation*, 133(4):388–397, 2016

GRANTS AND FELLOWSHIPS

National Science Foundation Graduate Research Fellowship Program 2022-2025
Karen T. Romer Undergraduate Research and Teaching Award 2019

TEACHING

Head Teaching Assistant, CSCI 1951R: Introduction to Robotics Fall 2020
Dept. Computer Science, Brown University
Instructor: Stefanie Tellex

OUTREACH

Choreorobotics Controls Engineer and Mentor Spring, Summer 2022
Dept. Theatre and Performance Studies, Brown University

Mentor, Team 5987 Galaxia Fall 2017-Spring 2018
Reali Hebrew Day School, Haifa, Israel

Mentor, Team 6000 Firehawk Robotics 2018-2019
Shalhevet High School, Los Angeles, California

REFEREEING

IEEE International Conference on Robotics and Automation (ICRA) 2023
Learning for Decision and Control (L4DC) 2023