Brian Hou

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Education

University of Washington — 2017 – present
Ph.D., Computer Science, 3.87 GPA

Carnegie Mellon University — 2016 – 2017
Ph.D., Robotics, 4.00 GPA *(transferred to UW with Prof. Siddhartha Srinivasa)*

University of California, Berkeley — 2012 – 2016
B.S., Electrical Engineering and Computer Science, 3.85 GPA

Experience

Personal Robotics Lab · *Advisor: Prof. Siddhartha Srinivasa* — 2016 – present
University of Washington; Carnegie Mellon University

Automation Sciences Lab · *Advisor: Prof. Ken Goldberg* — 2015 – 2016
University of California, Berkeley

Honors & Awards

NASA Space Technology Research Fellowship	2017 – 2021
Cultural Competence in Computing (3C) Fellows Program	2021
UC Berkeley Outstanding Graduate Student Instructor Award	2016
NSF Graduate Research Fellowship Honorable Mention	2016
UC Berkeley EECS Honors Degree Program	2014 – 2016
UC Berkeley Regents' and Chancellor's Scholar	2012 – 2016

Teaching

Data Visualization · *Teaching Assistant*	Spring 2022
Autonomous Robotics · *Teaching Assistant*	Winter 2022
Autonomous Robotics · *Course Instructor*	Spring 2021
Robotics: Algorithms and Applications · *Teaching Assistant*	Winter 2019
Structure and Interpretation of Computer Programs · *Course Instructor*	Summer 2016
Introduction to Machine Learning · *Teaching Assistant*	Spring 2016
Introduction to Artificial Intelligence · *Teaching Assistant*	Summer 2014
Structure and Interpretation of Computer Programs · *Teaching Assistant*	Fall 2015 Spring 2015 Fall 2014 Fall 2013 Summer 2013

Service & Outreach

UW CSE Pre-Application Mentorship Service Chair	2021 – present
UW CSE Pre-Application Review Service Leader	2020 – 2021
UW CSE Faculty Recruiting Liaison	2019 – 2020
UW CSE Ph.D. Visit Days Robotics Scheduler-in-Chief	2019 – 2020
UW CSE Ph.D. Admissions Reader	2019
UW CSE Ph.D. Visit Days Activity Coordinator	2018 – 2019
Robotics: Science and Systems Conference Web Chair	2017
Eta Kappa Nu, Mu Chapter Executive Officer	2014 – 2015
Eta Kappa Nu, Mu Chapter Officer	2014

Conference Publications

Stein Variational Probabilistic Roadmaps
Alexander Lambert, Brian Hou, Rosario Scalise, Siddhartha S. Srinivasa, Byron Boots.
IEEE International Conference on Robotics and Automation (ICRA), 2022.

Bayesian Residual Policy Optimization: Scalable Bayesian Reinforcement Learning with Clairvoyant Experts
Gilwoo Lee, Brian Hou, Sanjiban Choudhury, Siddhartha S. Srinivasa.
IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2021.

Posterior Sampling for Anytime Motion Planning on Graphs with Expensive-to-Evaluate Edges
Brian Hou, Sanjiban Choudhury, Gilwoo Lee, Aditya Mandalika, Siddhartha S. Srinivasa.
IEEE International Conference on Robotics and Automation (ICRA), 2020.

Bayesian Policy Optimization for Model Uncertainty
Gilwoo Lee, Brian Hou, Aditya Mandalika, Jeongseok Lee, Sanjiban Choudhury, Siddhartha S. Srinivasa.
International Conference on Learning Representations (ICLR), 2019.

Efficient Motion Planning for Problems Lacking Optimal Substructure
Oren Salzman, Brian Hou, Siddhartha S. Srinivasa.
International Conference on Automated Planning and Scheduling (ICAPS), 2017.

Privacy-Preserving Cloud-Based Grasp Planning
Jeffrey Mahler, Brian Hou, Sherdil Niyaz, Florian T. Pokorny, Ramu Chandra, Ken Goldberg.
IEEE International Conference on Automation Science and Engineering (CASE), 2016.
Finalist, Best Student Paper Award

Dex-Net 1.0: A Cloud-Based Network of 3D Objects for Robust Grasp Planning Using a Multi-Armed Bandit Model with Correlated Rewards
Jeffrey Mahler, Florian T. Pokorny, Brian Hou, Melrose Roderick, Michael Laskey, Mathieu Aubry, Kai Kohlhoff, Torsten Kroeger, James Kuffner, Ken Goldberg.
IEEE International Conference on Robotics and Automation (ICRA), 2016.
Finalist, Best Manipulation Paper Award

Fuzz Testing Projects in Massive Courses
Sumukh Sridhara, Brian Hou, Jeffrey Lu, John DeNero.
ACM Conference on Learning @ Scale (L@S), 2016.

Problems Before Solutions: Automated Problem Clarification at Scale
Soumya Basu, Albert Wu, Brian Hou, John DeNero.
ACM Conference on Learning @ Scale (L@S), 2015.