

Albert Hao Li

Contact

California Institute of Technology
1200 E. California Blvd.
MC 305-16
Pasadena, CA 91125, USA

e-mail: alberthli@caltech.edu
website: alberthli.github.io

Education

California Institute of Technology
Ph.D., Control and Dynamical Systems
Advisor: Aaron Ames
GPA: 4.083 / 4.000

Pasadena, CA
2021-Present

Stanford University
M.S., Mechanical Engineering
GPA: 4.120 / 4.000

Stanford, CA
2019-2021

University of California, Berkeley
B.S., Mechanical Engineering
Minor, Electrical Engineering and Computer Science
GPA: 3.928 / 4.000

Berkeley, CA
2015-2019

Awards and Honors

Kortschak Scholars Graduate Fellowship
UC Berkeley College of Engineering High Honors

2021
2019

Research

Advanced Mechanical Bipedal Experimental Robotics Lab
PI: Aaron Ames

Caltech
2021-Present

Assistive Robotics and Manipulation Lab
PI: Monroe Kennedy III

Stanford University
2019-2021

Hybrid Robotics Lab
PI: Koushil Sreenath

UC Berkeley
2019

Berkeley Emergent Space Tensegrities Lab
PI: Alice Agogino

UC Berkeley
2018-2019

Laboratory for Automation Science and Engineering
PI: Ken Goldberg

UC Berkeley
2017

Industry Experience

The Robotics and AI Institute
Dexterous Mobile Manipulation Research Intern

Cambridge, MA
2025

Publications

Preprints

No current preprints.

Journal Publications

- [J1] Andrew Preston Sabelhaus, **Albert Hao Li**, Kimberley Sover, Jacob Madden, Andrew Barkan, Adrian Agogino, and Alice Agogino, “Inverse Statics Optimization for Compound Tensegrity Robots,” *IEEE Robotics and Automation Letters*, vol. 5, no. 3, pp. 3982-3989, 2020.

Conference Publications

- [C10] **Albert Hao Li***, Ivan Dario Rodriguez Jimenez*, Joel W. Burdick, Yisong Yue, Aaron D. Ames. “KALIKO: Kalman-Implicit Koopman Operator Learning For Prediction of Nonlinear Dynamical Systems”. Accepted, International Conference on Robotics and Automation (ICRA) 2026.
- [C9] **Albert Hao Li**, John Z. Zhang, Jan Brdigan, Brandon Hung, Aaron D. Ames, Jiuguang Wang, Simon Le Cleac’h, Preston Culbertson, “Judo: A User-Friendly Open-Source Package for Sampling-Based Model Predictive Control”. Accepted, International Conference on Robotics and Automation (ICRA) 2026.
- [C8] Yitaek Kim, Jeeseop Kim, **Albert Hao Li**, Aaron D. Ames, Christoffer Sloth, “Robust Adaptive Safe Robotic Grasping with Tactile Sensing,” *2025 European Control Conference (ECC)*, Thessaloniki, Greece, 2025.
- [C7] **Albert Hao Li**, Preston Culbertson, Vince Kurtz, Aaron D. Ames, “DROP: Dexterous Reorientation via Online Planning,” *2025 IEEE International Conference on Robotics and Automation (ICRA)*, Atlanta, Georgia, USA, 2025.
- [C6] Tyler Ga Wei Lum*, **Albert Hao Li***, Preston Culbertson, Krishnan Srinivasan, Aaron D. Ames, Mac Schwager, Jeannette Bohg, “Get a Grip: Multi-Finger Grasp Evaluation at Scale Enables Robust Sim-to-Real Transfer,” *2024 Conference on Robot Learning*, Munich, Germany, 2024. ***Equal Contribution.**
- [C5] **Albert Hao Li**, Preston Culbertson, Aaron D. Ames, “Toward An Analytic Theory of Intrinsic Robustness for Dexterous Grasping,” *2024 IEEE/RSJ Conference on Intelligent Robots and Systems*, Abu Dhabi, UAE, 2024.
(Formerly “PONG: Probabilistic Object Normals for Grasping via Analytic Bounds on Force Closure Probability.”)
- [C4] **Albert Hao Li**, Preston Culbertson, Joel W. Burdick, Aaron D. Ames, “FRoGGeR: Fast Robust Grasp Generation via the Min-Weight Metric,” *2023 IEEE/RSJ Conference on Intelligent Robots and Systems*, Detroit, USA, 2023.
- [C3] **Albert Hao Li***, Philipp Wu*, Monroe Kennedy III, “Replay Overshooting: Learning Stochastic Latent Dynamics with the Extended Kalman Filter,” *2021 IEEE International Conference on Robotics and Automation (ICRA)*, Xi’an, China, 2021, pp. 852-858. ***Equal Contribution.**

- [C2] Katherine Lin Poggensee*, **Albert Hao Li***, Daniel Sotsaïkich*, Bike Zhang, Prasanth Kotaru, Mark Mueller, and Koushil Sreenath, “Ball Juggling on the Bipedal Robot Cassie,” *2020 European Control Conference (ECC)*, Saint Petersburg, Russia, 2020, pp. 875-880. ***Equal Contribution.**
- [C1] Jeffrey Mahler, Matthew Matl, Xinyu Liu, **Albert Li**, David Gealy, Ken Goldberg, “Dex-Net 3.0: Computing Robust Vacuum Suction Grasp Targets in Point Clouds Using a New Analytic Model and Deep Learning,” *2018 IEEE International Conference on Robotics and Automation (ICRA)*, Brisbane, QLD, 2018, pp. 5620-5627.

Workshop Publications

- [W1] **Albert Hao Li**, Preston Culbertson, Vince Kurtz, Aaron D. Ames, “DROP: Dexterous Reorientation via Online Planning.” *Learning Robot Fine and Dexterous Manipulation: Perception and Control*, 2025 Conference on Robot Learning (CoRL), Munich, Germany, 2025.

Outstanding Paper Award (out of 37 submissions)

Presentations and Talks

Invited Talks

“FRoGGeR: Fast Robust Grasp Generation via the Min-Weight Metric” Stanford, CA
Interactive Perception and Robot Learning Lab 2023

Conference/Symposium Presentations

“Ball Juggling on the Bipedal Robot Cassie” Berkeley, CA
Bay Area Robotics Symposium 2019 (jointly with Bike Zhang) 2019

Reviewing Activities

Soft Robotics (SoRo) 2024
IEEE International Conference on Robotics and Automation (ICRA) 2024, 2025
IEEE Robotics and Automation Letters (RA-L) 2020, 2021

Teaching

Advanced Dynamics, Controls, and System Identification (ME334) Stanford University
Teaching Assistant 2021
Dynamic Systems, Vibrations, and Control (ME161) Stanford University
Teaching Assistant 2020