

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 Brdigam, 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 Sotsaikich*, 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