Albert Hao Li

Contact

California Institute of Technology
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Education

California Institute of Technology — Pasadena, CA
Ph.D., Control and Dynamical Systems — *2021-Present*
Advisor: Aaron Ames
GPA: 4.121 / 4.000

Stanford University — Stanford, CA
M.S., Mechanical Engineering — *2019-2021*
GPA: 4.120 / 4.000

University of California, Berkeley — Berkeley, CA
B.S., Mechanical Engineering — *2015-2019*
Minor, Electrical Engineering and Computer Science
GPA: 3.928 / 4.000

Awards and Honors

Kortschak Scholars Graduate Fellowship — *2021*
UC Berkeley College of Engineering High Honors — *2019*

Research

Advanced Mechanical Bipedal Experimental Robotics Lab — Caltech
PI: Aaron Ames — *2021-Present*

Assistive Robotics and Manipulation Lab — Stanford University
PI: Monroe Kennedy III — *2019-2021*

Hybrid Robotics Lab — UC Berkeley
PI: Koushil Sreenath — *2019*

Berkeley Emergent Space Tensegrities Lab — UC Berkeley
PI: Alice Agogino — *2018-2019*

Laboratory for Automation Science and Engineering — UC Berkeley
PI: Ken Goldberg — *2017*

Publications

Preprints

[P1] **Albert Hao Li**, Preston Culbertson, Vince Kurtz, Aaron D. Ames, "DROP: Dexterous Reorientation via Online Planning." *Submitted to ICRA 2025.*

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

[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." Resubmitted.)

[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.

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*
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*