

Laura Smith

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laurasmith.github.io

- OBJECTIVE** My goal is to enable robots to learn from their own interactions, with an eye towards endowing them with human-like intelligence and capabilities.
- EDUCATION**
- Ph.D. Student in Computer Science* 8/20 – 5/25 (expected)
University of California, Berkeley GPA: 3.947/4.00
- B.A. in Computer Science* 2016 – 2020
University of California, Berkeley GPA: 3.967/4.00
Highest Distinction in General Scholarship
- Relevant Coursework: Deep Reinforcement Learning (A+), Deep Unsupervised Learning (A+), Information Theory & Coding* (A-), Convex Optimization* (A), Optimization & Approximation (A+), Machine Learning (A+), Machine Learning Systems (A+), Linear System Theory (A), Real Analysis (A), Artificial Intelligence (A+), Probability & Random Processes (A), Discrete Math & Probability Theory (A+)*
- AWARDS**
- Fellowships*
- *Google PhD Fellowship*, current
 - *National Science Foundation Graduate Research Fellowship*, 2020-2023
 - *EECS Excellence Award*, supplementary fellowship for outstanding academic record, UC Berkeley, 2020-2021
- Honors*
- *CRA Outstanding Undergraduate Researcher Award Finalist*, awarded to roughly 20 graduating seniors in computer science from North America, 2019
 - *NeurIPS Robot Learning Workshop Travel Award*, DeepMind, 2019
 - *Upsilon Pi Epsilon CS Honors Society*, UC Berkeley, 2018
 - *The Leadership Award*, Cal Alumni Association, 2016, 2017, 2019
- RESEARCH**
- Graduate Student Researcher* August 2020 – present
[Robotics and AI Lab \(RAIL\)](#), advised by Sergey Levine
Developing intelligent, autonomous systems that learn continually in the real world.
- Undergraduate Researcher* May 2018 – May 2020
[Robot Learning Lab \(RLL\)](#), advised by Pieter Abbeel
Developed sample-efficient, vision-based methods, via representation learning and model-based approaches, to enable robot learning in real-world domains.
- PREPRINTS**
- Annie Chen*, Govind Chada*, **Laura Smith**, Archit Sharma, Zipeng Fu, Sergey Levine, Chelsea Finn. Adapt On-the-Go: Behavior Modulation for Single-Life Robot Deployment. *in submission*. [\[website\]](#)

PUBLICATIONS

Laura Smith*, Yunhao Cao*, Sergey Levine. Grow Your Limits: Continuous Improvement with Real-World RL for Robotic Locomotion. *published at ICRA, 2024*. [\[website\]](#)

Laura Smith, J. Chase Kew, Tianyu Li, Xue Bin Peng, Sehoon Ha, Jie Tan, Sergey Levine. Learning and Adapting Agile Locomotion Skills by Transferring Experience. *published at RSS, 2023*. [\[website\]](#)

Laura Smith*, Ilya Kostrikov*, Sergey Levine. A Walk in the Park: Learning to Walk in 20 Minutes With Model-Free Reinforcement Learning. *published at Robotics Science and Systems (RSS) Demo Track, 2023*. [\[website\]](#)

Kevin Zakka, Philipp Wu, **Laura Smith**, Nimrod Gileadi, Taylor Howell, Xue Bin Peng, Sumeet Singh, Yuval Tassa, Pete Florence, Andy Zeng, Pieter Abbeel. RoboPianist: Dexterous Piano Playing with Deep RL. *published at CoRL, 2023*. [\[website\]](#)

Philip J. Ball*, **Laura Smith***, Ilya Kostrikov*, Sergey Levine. Efficient Online Reinforcement Learning with Offline Data. *published at ICML, 2023*. [\[arXiv\]](#)

Laura Smith, J. Chase Kew, Xue Bin Peng, Sehoon Ha, Jie Tan, Sergey Levine. Legged Robots that Keep on Learning: Fine-Tuning Locomotion Policies in the Real World. *published at ICRA, 2022*. [\[website\]](#)

Vitchyr H. Pong, Ashvin Nair, **Laura Smith**, Catherine Huang, Sergey Levine. Offline Meta-RL with Online Self-Supervision. *published at ICML, 2022*. [\[website\]](#)

Kimin Lee, **Laura Smith**, Anca Dragan, Pieter Abbeel. B-Pref: Benchmarking Preference-Based Reinforcement Learning. *published at NeurIPS 2021, Datasets and Benchmarks Track*. [\[website\]](#)

Laura Smith*, Kimin Lee*, Pieter Abbeel. PEBBLE: Feedback-Efficient Interactive RL via Relabeling Experience and Unsupervised Pre-Training. *published at ICML 2021 as a long oral presentation (166/5513=3.0%)*. [\[website\]](#)

Laura Smith, Nikita Dhawan, Marvin Zhang, Pieter Abbeel, Sergey Levine. AVID: Learning Multi-Stage Tasks via Pixel-Level Translation of Human Videos. *published at RSS, 2020*. [\[website\]](#)

Marvin Zhang*, Sharad Vikram*, **Laura Smith**, Pieter Abbeel, Matthew Johnson, Sergey Levine. SOLAR: Deep Structured Latent Representations for Model-Based Reinforcement Learning. *published at ICML, 2019*. [\[website\]](#)

Press Coverage

- [Robot dog learns to walk on tough terrain in just 20 minutes](#), by Alex Wilkins. New Scientist. 26 August 2022.
- [A technique that allows legged robots to continuously learn from their environment](#), by Ingrid Fadelli. Tech Xplore. 1 November 2021.
- [AVID: a framework to enhance imitation learning in robot](#), by Ingrid Fadelli. Tech Xplore. 3 January 2020.
- [Researchers develop new framework to teach robots](#), by David Curry. RTInsights. 13 January 2020.

PROFESSIONAL
ACTIVITIES

Talks

- BAIR Robotics & Systems Workshop 2022
- Google-BAIR Commons Symposium 2021, 2022

Reviewing

- IEEE Robotics and Automation Letters (RA-L) 2023
- Conference on Neural Information Processing Systems (NeurIPS) 2022
Benchmarks and Datasets Track
- International Conference on Intelligent Robots and Systems (IROS) 2020, 2022
- International Conference on Robotics and Automation 2022
- International Conference on Learning Representations (ICLR) 2022
Generalizable Policy Learning in Physical World Workshop

Advising

- Yiming Ni (MS at Stanford)
- Yunhao Cao
- Stefanie Gschwind
- Jennifer Zhao
- Hrish Leen
- Seungeun Rho (PhD Student at Georgia Tech)
- Hongbo Zhang (PhD Student at Chinese University of Hong Kong)

SERVICE
& OUTREACH

AI Research Mentoring Program, Co-Organizer 2020 – present
Coordinating a mentoring program for underrepresented undergraduates to learn about AI research from graduate student volunteers.

UC Berkeley Women in EECS, Board Member 2022 – 2023
Organizing events for female graduate students in computer science and engineering.

Robot Learning Lab Outreach, Co-Organizer 2018 – 2020
Organized lab tours and assisted with demonstrations at large-scale events.

Upsilon Pi Epsilon, Service Committee Member 2018
Held weekly open office hours for lower-division, undergraduate CS courses.

TEACHING

Student Instructor

- *CS 189/289A: Introduction to Machine Learning* Spring 2020
- *CS 287: Advanced Robotics* Fall 2019
- *CS 188: Introduction to Artificial Intelligence* Fall 2018, Spring 2019

Course Staff (Reader, Tutor, Lab Assistant)

- *CS 70: Discrete Mathematics & Probability Theory* Spring 2018
- *CS C8: Data Science* Fall 2017
- *CS 61B: Data Structures & Algorithms* Spring 2016

Lectures

- *Imitation Learning*, CS 287: Advanced Robotics, UC Berkeley Fall 2019
- *Robotics Talk*, for CS Education Day Winter 2018
- *Artificial Intelligence (Special Topics)*, CS 10, UC Berkeley Fall 2018