ALBERT WILCOX

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EDUCATION

University of California, Berkeley — **Berkeley, CA**
M.S. in Electrical Engineering and Computer Science — Expected May 2023

University of California, Berkeley — **Berkeley, CA**
B.A. in Computer Science, Applied Mathematics — Graduated May 2022

- **GPA:** 3.97

Relevant Coursework: Deep Reinforcement Learning, Advanced Topics in Decision Making and Control, Deep Neural Networks, Introduction to Machine Learning, Optimization Models, Probability and Random Processes, Algorithms, Linear Algebra, Multivariable Calculus, Discrete Math and Probability Theory, Abstract Algebra, Real Analysis, Numerical Analysis, Complex Analysis

RESEARCH EXPERIENCE

Berkeley AI Research - AUTOLab — **Berkeley, CA**
Advised by Prof. Ken Goldberg — August 2020 - Present

- Reinforcement learning, imitation learning, representation learning and computer vision.

UC Berkeley Autonomous Microsystems Lab — **Berkeley, CA**
Advised by Prof. Kris Pister — August 2019 - May 2020

- Designed and implemented algorithms for accurate long-horizon dynamics model learning.

WORK EXPERIENCE

Nuro — **Mountain View, CA**
Software Engineering Intern — June 2022 - August 2022

- Worked on the Machine Learning Research team at Nuro.
- Researched methods for using epistemic uncertainty estimates to improve the RL planner.

Amazon Web Services — **Virtual**
Software Development and Engineering Intern — May 2020 - August 2020

- Built a data lake to store data emitted by AWS Elastic Load Balancers using a variety of internal- and external-facing AWS tools.

UC Berkeley EECS Department — **Berkeley, CA**
Reader — August 2020 - December 2020

- EECS 127 (Optimization Models in Engineering) - Created rubrics for and graded student homework and exams.

PUBLICATIONS

1. Justin Kerr, Huang Huang, **Albert Wilcox**, Ryan Hoque, Jeffrey Ichnowski, Roberto Calandra, and Ken Goldberg. "Learning Self-Supervised Representations from Vision and Touch for Active Sliding Perception of Deformable Surfaces". Under Review, 2022.

2. **Albert Wilcox**, Ashwin Balakrishna, Daniel Brown, Jules Dedieu, Wyame Benslimane, Ken Goldberg. "Monte Carlo Augmented Actor-Critic for Sparse Reward Deep Reinforcement Learning from Suboptimal Demonstrations". *Thirty-sixth Conference on Neural Information Processing Systems (NeurIPS), 2022.* (`https://tinyurl.com/wilcox2022mcac`)
3. **Albert Wilcox***, Justin Kerr*, Brijen Thananjeyan, Jeffrey Ichnowski, Minho Hwang, Samuel Paradis, Danyal Fer, Ken Goldberg. "Learning to Localize, Grasp, and Hand Over Unmodified Surgical Needles". *IEEE International Conference on Robotics and Automation (ICRA), 2022.* (`https://arxiv.org/abs/2112.04071`)
4. **Albert Wilcox***, Ashwin Balakrishna*, Brijen Thananjeyan, Joseph E. Gonzalez and Ken Goldberg. "LS^3: Latent Space Safe Sets for Long-Horizon Visuomotor Control of Sparse Reward Iterative Tasks". *Conference on Robot Learning (CoRL), 2021.* (`https://arxiv.org/abs/2107.04775`)
5. Ryan Hoque, Ashwin Balakrishna, Ellen Novoseller, **Albert Wilcox**, Daniel S. Brown and Ken Goldberg. "ThriftyDAgger: Budget-Aware Novelty and Risk Gating for Interactive Imitation Learning". *Conference on Robot Learning (CoRL), 2021.* (`https://arxiv.org/abs/2109.08273`)
6. Nathan O. Lambert, **Albert Wilcox**, Howard Zhang, Kristofer S. J. Pister and Roberto Calandra. "Learning Accurate Long-term Dynamics for Model-based Reinforcement Learning". *IEEE Conference on Decision and Control (CDC), 2021.* (`https://arxiv.org/abs/2012.09156`)

PROFESSIONAL ACTIVITIES

Reviewer, Conference on Neural Information Processing Systems (NeurIPS) — Summer 2022
Reviewer, Conference on Robot Learning (CoRL) 2022 — Summer 2022
Reviewer, International Conference on Machine Learning (ICML) 2022 — Spring 2022
Program Committee Member, Safe and Robust Control of Uncertain Systems Workshop, NeurIPS 2021 — December 2021
Upsilon Pi Epsilon (CS Honor Society) — January 2020 - Present