

Jesse Zhang

Postdoc focused on Post-Deployment Robot Learning at UW with Abhishek Gupta and Dieter Fox

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EDUCATION

University of Southern California , Los Angeles, CA	2020 - 2025
<i>Ph.D.</i> in Computer Science (Advisors: Erdem Biyik, Joseph Lim, Jesse Thomason)	GPA: 4.00/4.00
UC Berkeley , Berkeley, CA	2016 - 2020
<i>B.A.</i> in Computer Science (Honors in CS, Graduated w/ Highest Distinction)	GPA: 3.96/4.00

CONFERENCE PAPERS

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- [C19] Sarvesh Patil*, Mitsuhiro Nakamoto*, Manan Agarwal, Shashwat Saxena, **Jesse Zhang**, Giri Anantharaman, Cleah Winston, Chaoyi Pan, Douglas Chen, Nai-Chieh Huang, Zeynep Temel, Oliver Kroemer, Abhishek Gupta, Sergey Levine, Hongkai Dai*, Paarth Shah*, and Max Simchowitz*. “OGPO: Sample Efficient Full-Finetuning of Generative Control Policies”, *ICML*, 2026
 - [C18] Matthew Hong, **Jesse Zhang**, Anusha Nagabandi, and Abhishek Gupta. “Diffusion Timestep-Modulated Pre-training Enables Exploration for Efficient Policy Fine-tuning”, *RSS, World Modeling Workshop, Oral at RL4IL ICRA Workshop*, 2026
 - [C17] Anthony Liang*, Yigit Korkmaz*, Jiahui Zhang, Minyoung Hwang, Abrar Anwar, Sidhant Kaushik, Aditya Shah, Alex S Huang, Luke Zettlemoyer, Dieter Fox, Yu Xiang, Anqi Li, Andreea Bobu, Abhishek Gupta, Stephen Tu*, Erdem Biyik*, and **Jesse Zhang***. “Robometer: Scaling General-Purpose Robotic Reward Models via Trajectory Comparisons”, *RSS, Oral at RL4IL ICRA Workshop*, 2026
 - [C16] Matthew Hong*, Anthony Liang*, Kevin J. Kim, Harshitha Belagavi Rajaprakash, Jesse Thomason*, Erdem Biyik*, and **Jesse Zhang***. “HAND Me The Data: Fast Robot Adaptation via Hand Path Retrieval”, *ICRA*, 2026
 - [C15] **Jesse Zhang***, Marius Memmel*, Kevin Kim, Dieter Fox, Jesse Thomason, Fabio Ramos, Erdem Biyik, Abhishek Gupta*, and Anqi Li*. “PEEK: Guiding and Minimal Image Representations for Zero-Shot Generalization of Robot Manipulation Policies”, *ICRA*, 2026
 - [C14] Jiahui Zhang*, Yusen Luo*, Abrar Anwar*, Sumedh Anand Sontakke, Joseph J. Lim, Jesse Thomason, Erdem Biyik, and **Jesse Zhang**. “ReWiND: Language-Guided Rewards Teach Robot Policies without New Demonstrations”, *Oral at CoRL (top 4.3%)*, 2025
 - [C13] Yi Li*, Yuquan Deng*, **Jesse Zhang***, Joel Jang, Marius Memmel, Caelan Reed Garrett, Fabio Ramos, Dieter Fox, Anqi Li*, Abhishek Gupta*, and Ankit Goyal*. “HAMSTER: Hierarchical Action Models for Open-World Robot Manipulation”, *ICLR*, 2025
 - [C12] **Jesse Zhang**, Minh Heo, Zuxin Liu, Erdem Biyik, Joseph J Lim, Yao Liu, and Rasool Fakoor. “EXTRACT: Efficient Policy Learning by Extracting Transferable Robot Skills from Offline Data”, *CoRL*, 2024
 - [C11] Yufei Wang, Zhanyi Sun, **Jesse Zhang**, Zhou Xian, Erdem Biyik, David Held, and Zackory Erickson. “RL-VLM-F: Reinforcement Learning from Vision Language Foundation Model Feedback”, *ICML*, 2024
 - [C10] **Jesse Zhang**, Karl Pertsch, Jiahui Zhang, and Joseph J Lim. “SPRINT: Scalable Semantic Policy Pre-training via Language Instruction Relabeling”, *ICRA 2024. LangRob Workshop CoRL 2022 Spotlight*,
 - [C9] Zuxin Liu, **Jesse Zhang**, Kavosh Asadi, Yao Liu, Ding Zhao, Shoham Sabach, and Rasool Fakoor. “TAIL: Task-Specific Adapters for Imitation Learning”, *ICLR*, 2024

- [C8] Sumedh Anand Sontakke, **Jesse Zhang**, Séb Arnold, Karl Pertsch, Erdem Biyik, Dorsa Sadigh, Chelsea Finn, and Laurent Itti. “RoboCLIP: One Demonstration is Enough to Learn Robot Policies”, *NeurIPS*, 2023
- [C7] **Jesse Zhang**, Jiahui Zhang, Karl Pertsch, Ziyi Liu, Xiang Ren, Minsuk Chang, Shao-Hua Sun, and Joseph J Lim. “Bootstrap Your Own Skills: Learning to Solve New Tasks with Large Language Model Guidance”, *Oral at CoRL (top 6.6%)*. *Spotlight at RSS Articulate Robots Workshop*, 2023
- [C6] Dweep Trivedi*, **Jesse Zhang***, Shao-Hua Sun, and Joseph J. Lim. “Learning to Synthesize Programs as Interpretable and Generalizable Policies”, *NeurIPS*, 2021
- [C5] **Jesse Zhang***, Haonan Yu*, and Wei Xu. “Hierarchical Reinforcement Learning by Discovering Intrinsic Options”, *ICLR*, 2021
- [C4] Avi Singh, Albert Yu, Jonathan Yang, **Jesse Zhang**, Aviral Kumar, and Sergey Levine. “COG: Connecting New Skills to Past Experience with Offline Reinforcement Learning”, *CoRL*, 2020
- [C3] **Jesse Zhang**, Brian Cheung, Chelsea Finn, Sergey Levine, and Dinesh Jayaraman. “Cautious Adaptation For Reinforcement Learning in Safety-Critical Settings”, *ICML*, 2020
- [C2] **Jesse Zhang**, Jack Sullivan, Vasudev Venkatesh PB, Kyle Tse, Andy Yan, John Leyden, Kalyanaraman Shankari, and Randy H Katz. “TripAware: Emotional and Informational Approaches to Encourage Sustainable Transportation via Mobile Applications”, *ACM BuildSys*, 2019
- [C1] Brian Yang, **Jesse Zhang**, Vitchyr Pong, Sergey Levine, and Dinesh Jayaraman. “REPLAB: A Reproducible Low-Cost Arm Benchmark for Robotic Learning”, *ICRA*, 2019

JOURNAL PAPERS

- [J2] Yongshuai Liu, Jiangyi Xia, Ziwen Kan, **Jesse Zhang**, Sheela Toprani, James B. Brewer, Marta Kutas, Xin Liu, and John Olichney. “Unveiling Early Signs of Preclinical Alzheimer’s Disease Through ERP Analysis with Weighted Visibility Graphs and Ensemble Learning”, *Bioengineering*, 2025
- [J1] **Jesse Zhang**, Jiangyi Xia, Xin Liu, and John Olichney. “Machine Learning on Visibility Graph Features Discriminates the Cognitive Event-Related Potentials of Patients with Early Alzheimer’s Disease from Healthy Aging”, *Brain Sciences*, 2023

PREPRINTS AND WORKSHOP PAPERS

- [P7] Ryan Lindeborg, Richard Peng, Ayush Jain, Jesse Zhang, Abrar Anwar, and Jesse Thomason. “Anticipating Unintended Robot Behaviors with Side Effect Critics”, *Spotlight at Workshop on Rethinking What It Means to be “Safe” for Generalist Robots*, 2026
- [P6] Anthony Liang*, Yigit Korkmaz*, Jiahui Zhang*, **Jesse Zhang***, Abrar Anwar, Sidhant Kaushik, Yufei Wang, Yu Xiang, David Held, Dieter Fox, Abhishek Gupta, Stephen Tu*, and Erdem Biyik*. “SPUR: Scaling Reward Learning from Human Demonstrations”, *CoRL 2025 Workshop on Evaluation and Deployment Across the Robot Learning Lifecycle*, 2025
- [P5] Taewook Nam, Juyong Lee, **Jesse Zhang**, Sung Ju Hwang, Joseph J Lim, and Karl Pertsch. “LiFT: Unsupervised Reinforcement Learning with Foundation Models as Teachers”, *2nd Workshop on Agent Learning in Open-Endedness (ALOE) at NeurIPS 2023*, 2023
- [P4] Linghan Zhong, Ryan Lindeborg, **Jesse Zhang**, Joseph J Lim, and Shao-Hua Sun. “Hierarchical Neural Program Synthesis”, *ArXiv Preprint*, 2023
- [P3] **Jesse Zhang***, Karl Pertsch*, Jiefan Yang, and Joseph J Lim. “Minimum Description Length Skills for Accelerated Reinforcement Learning”, *ICLR 2021 Self-Supervision for Reinforcement Learning Workshop*, 2021

- [P2] Kalyanaraman Shankari, Jonathan Fuerst, Mauricio Fadel Argerich, Eleftherios Avramidis, and **Jesse Zhang**. “MobilityNet: Towards A Public Dataset For Multi-Modal Mobility Research”, *ICLR Climate Change AI Workshop 2020*, 2020
- [P1] Daiyaan Arfeen* and **Jesse Zhang***. “Unsupervised Projection Networks for Generative Adversarial Networks”, *ICCV 2019 Sensing, Understanding, and Synthesizing Humans Workshop*, 2019

HONORS AND AWARDS

- RSS Pioneer, 30 selected out of 186 applicants 2026
- Best Paper Award (ReWiND) at OOD Workshop RSS 2025
- Best Paper Nomination (ReWiND) at RoboReps Workshop RSS 2025
- Qualcomm Innovation Fellowship Finalist 2024
- Best Paper Runner-up, CoRL LangRob Workshop 2022
- Highlighted Reviewer Award (top 8%), ICLR 2022
- Distinguished Reviewer Award (top 8%), NeurIPS 2021
- Travel Award, ICLR 2020
- Honors in Computer Science, UC Berkeley 2020

EXPERIENCE

<i>Contractor</i> Toyota Research Institute through HireArt, Los Altos, CA	April 2026 - Current
<i>Research Collaborator</i> Allen Institute for AI, Seattle, WA	January 2026 - Current
<i>Postdoctoral Researcher</i> University of Washington, Seattle, WA	July 2025 - Current
<i>Research Scientist Intern</i> NVIDIA Seattle Robotics Lab, Seattle, WA	May 2024 - March 2025
<i>Applied Scientist Intern</i> Amazon Lablets, Santa Clara, CA	June 2023 - November 2023
<i>Research Intern</i> NAVER CLOVA AI Research, Seongnam, Korea	February 2021 - August 2021
<i>Research Intern</i> Horizon Robotics, Cupertino, CA	January 2020 - August 2020

SERVICES

Workshop Organizing

- Roadmap to Sample-Efficient Real-World Reinforcement Learning at CoRL 2026
- Eval & Deploy at CoRL 2025

Reviewer

- RL Conference (Senior/Holistic Reviewer), RA-L, ICRA, NeurIPS, ICML, ICLR, CoRL, HRI 2025, TMLR 2022-2024, UIST 2024, CHI 2024, IEEE ITSC 2019

Mentoring and Outreach

- **UW ML Reading Program:** 1:1 meetings reading ML research papers with undergrads.
- **USC UGrad Mentoring Program:** 1:1 meetings to forge paths for getting involved in research.
- **UROS Robotics Symposium:** Organizer of PhD-student-led robotics symposium at USC.
- **CURVE:** Mentored USC undergrads through fellowship program.
- **Google x USC AI Community Project:** Helped undergrads design AI education outreach programs for underrepresented students in K-12 schools and Los Angeles community events. <https://sites.google.com/usc.edu/aicomunityproject>.

TEACHING

<i>Graduate Student Instructor, USC</i>	2020-2025
CSCI-360 Intro to AI; CSCI-566 Deep Learning	
- TA'd 5 times in Intro to AI, Deep Learning. Median TA rating 5/5, mean 4.6/5.	
<i>Undergraduate Student Instructor, UC Berkeley</i>	Fall 2019
CS 188: Intro to AI (Anca Dragan)	
- Lead a discussion section and held office hours — received 4.75/5 rating, 0.42 above dept avg	
<i>Course Reader, UC Berkeley</i>	Spring 2019
CS 170: Algorithms/Intro to CS Theory (Lucas Trevisan and Prasad Raghavendra)	
- Held office hours + volunteered to write problems for and help run extra sections on difficult material.	

RESEARCH MENTORING

PhD Students

• Sriyash Poddar (UW)	Current
• Harine Ravichandran (UW)	Current
• Arjun Guru (UW)	Current
• Cornelius Braun (Ai2)	Current
• Ge Yan (UW)	Current
• Marius Memmel (UW)	ICRA 2026, Current
• Abrar Anwar (USC)	CoRL 2025, RSS 2026
• Anthony Liang (USC)	ICRA 2026, RSS 2026
• Yigit Korkmaz (USC)	RSS 2026

Undergraduate, Masters, and Visiting Researchers

• Jason Lee (Ai2, UW)	Current
• Aditya Shah (UW)	RSS 2026
• Cleah Winston (UW)	ICML 2026
• Matthew Hong (USC + UW)	ICRA 2026, RSS 2026
• Yusen Luo (USC)	CoRL 2025
• Ryan Lindeborg (USC)	2023 Preprint, RSS Workshop 2026
• Jiahui Zhang (USC)	CoRL 2023, ICRA 2024, CoRL 2025
• Jiankun (Richard) Peng (USC)	RSS Workshop 2026

- Kevin Kim (USC) CoRL 2025, ICRA 2026
- Jiefan Yang (USC) ICLR Workshop 2021
- Sarthak Bhagat (USC) 2020-2021
- Dweep Trivedi (USC) NeurIPS 2021

INVITED TALKS AND PANELS

Invited Panel Discussion

- RL4VLA Workshop at RSS July 2026
- Post-Training for Robotics Foundation Models Workshop at RSS July 2026
- SemRob Workshop at RSS July 2026
- RLxF Workshop at ICML July 2026

“Learn Less, Borrow More: Generalization doesn’t have to be re-learned”

- SemRob Workshop at RSS July 2026

“Beyond Human Feedback: Synthetic Preferences for Scalable Robot RL”

- RLxF Workshop at ICML July 2026

“Beyond Human Feedback: Synthetic Preferences for Scalable Robot Reinforcement Learning”

- RLxF Workshop at ICML July 2026

“Duty Free: Robot Learning with Minimal Human Supervision”

- Waymo (Host: Matthew O’ Kelly) June 2026
- UT Dallas (Host: Prof. Yu Xiang) April 2026

“Robometer”

- NVIDIA Seattle Robotics Lab (Host: Ankur Handa) March 2026

“Scaling Robotics: From Generalists to Specialists”

- UC San Diego (Host: Prof. Xiaolong Wang) August 2025

“Hierarchical VLAs for Robot Manipulation”

- OpenAI Robotics Reading Group March 2025

“Scalable robot adaptation with large pre-trained models”

- Google Deepmind Tech Talk Series (Host: Jie Tan) February 2025
- Yonsei University RLLab (Prof. Youngwoon Lee) January 2025
- NTU Robot Learning Lab (Prof. Shao-Hua Sun) December 2024
- 44th Southern California Control Workshop November 2024

“Robotics in the Context of Large Pre-Trained Models”

- Perception, Action, and Learning Group at UPenn (Prof. Dinesh Jayaraman) February 2024
- NTU Robot Learning Lab (Prof. Shao-Hua Sun) October 2023

“Learning to Synthesize Programs as Interpretable and Generalizable Policies”

SELECTED PRESS COVERAGE

- [P1] “[Physical AI] The first glimpse of Gemini’s rampaging incarnation” by Donga Science Magazine about our ReWiND paper, December, 2025.
- [P2] “REPLAB: A low-cost benchmark platform for robotic learning,” by Ingrid Fadelli, *Tech Xplore*, May 29, 2019.