

Renhao “Norman” Zhang

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EDUCATION

University of Massachusetts Amherst	Amherst, MA, USA
Degree: Ph.D.; Major: Computer Science	09/2024 – Present
Teaching Assistant: Introduction to Machine Learning, Reinforcement Learning	
Research Assistant: Autonomous Learning Laboratory (ALL)	
Harvard University	Cambridge, MA, USA
Program: Visiting student; Major: Computer Science; GPA: 4.0/4.0	09/2023 – 12/2023
Brown University	Providence, RI, USA
Degree: M.S.; Major: Electrical and Computer Engineering; GPA: 3.8/4.0	08/2022 – 05/2024
Teaching Assistant: Introduction to Robotics; Scientific Programming of C++	
Research Assistant: Intelligent Robot Lab (IRL), Brown Visual Computing (BVC)	
Dalian University of Technology	Dalian, Liaoning, China
Degree: B.S.; Major: Electronic Information Engineering; GPA: 3.82/4.0	09/2018 – 06/2022
Admitted to the Electronic Information Innovative and Experimental Class (Top 1%)	
Teaching Assistant: Computer Vision	
Research Assistant: Wireless Communication Lab, Human-Computer Interaction Lab	

PUBLICATIONS

R. Zhang, B. C. da Silva, “Learning Generative Motion Manifolds for World Models”, under submission

Y. Li*, **R. Zhang***, B. Xiong*, B. Li, “LatentSpring: Harmonic Sources and Physical Corrections for Molecular Generation”, under submission

Y. Peng, M. Li, K. Xia, **R. Zhang**, A. Houmansadr, “Membership Inference Attacks on Vision-Language-Action Models”, under submission

R. Zhang, M. Li, Yuli Li, J. Zheng, Y. Miao, “Learning What to Keep: Evidence-Gated Parameterized Skills for Frozen LLM Agents”, NeurIPS 2026 TTCL Workshop

S. Ankeshwar, V. Muthuraman, E. Yoon, V. Ravichandran, **R. Zhang**, Y. Chittepudi, S. Sengupta, “TRACE: Separating Action and Reasoning Teachers for Strategic SLM Training”, NeurIPS 2026 SLM-Agents Workshop

R. Zhang, S. Chaudhari, B. C. da Silva, “Uncertainty-Guided Reward Labeling for Reinforcement Learning under Limited Feedback”, The Fortieth Annual Conference on Neural Information Processing Systems (NeurIPS 2026)

R. Zhang, M. Li, B. C. da Silva, “Latent Barrier Steering: Hierarchical Safety for Generative Planning”, The Fortieth Annual Conference on Neural Information Processing Systems (NeurIPS 2026)

Chaudhari, S.*, **Zhang, R.***, Thomas, P. S., & da Silva, B. C. “Data Selection for Reward Labeling in Limited-Feedback Reinforcement Learning”, Transactions on Machine Learning Research (TMLR), 2026.

R. Zhang, H. He, J. Gung, A. Gupta, “CalendarBench: Benchmarking Temporally Grounded Agentic Task Execution”, under submission

R. Zhang, H. Fu, M. Jia, G. Konidaris, Y. Du, B. C. da Silva, “From Noise to Control: Parameterized Diffusion Policies,” In Forty-first International Conference on Machine Learning (ICML), 2024.

M. Li, **R. Zhang**, Z. Wen, S. Pan, B. Silva, J. Zhai, S. Ma, “PROMPTMINER: Black-Box Prompt Stealing against Text-to-Image Generative Models via Reinforcement Learning and Fuzz Optimization,” CVPR 2024.

R. Zhang, M. Joblin, A. Maggiori, “Learning Optimal Inventory Policies under Product Substitution using Hierarchical Reinforcement Learning,” Amazon Machine Learning Conference (AMLC) 2025, (**highlight talk**)

Chaudhari, S.*, **Zhang, R.***, Thomas, P. S., & da Silva, B. C. “Which Rewards Matter? Reward Selection for Reinforcement Learning from Limited Feedback,” RLC 2025 RLBrew & Finding the Frame workshops.

RK. Jones, **R. Zhang**, A. Ganeshan, D. Ritchie, “Learning to Edit Visual Programs with Self-Supervision,” In the Thirty-eighth Annual Conference on Neural Information Processing Systems (NeurIPS), 2024.

R. Zhang, H. Fu, Y. Miao, G. Konidaris, “Model-based Reinforcement Learning for Parameterized Action Spaces,” In the Forty-first International Conference on Machine Learning (ICML), 2024.

R. Zhang, X. Li, and N. Zhao, “When DSA Meets SWIPT: A Joint Power Allocation and Time Splitting Scheme Based on Multi-Agent Deep Reinforcement Learning,” in IEEE Transactions on Vehicular Technology, 2022, doi: 10.1109/TVT.2022.3213243.

Liu, S., Zhang, A. [†], Li, Y. [†], Zhou, J., Xu, L., Dong, Z., & **Zhang, R.** Temporal Segmentation of Fine-grained Semantic action: A Motion-Centered Figure Skating Dataset. In Proceedings of the AAAI Conference on Artificial Intelligence (Vol. 35, No. 3, pp. 2163-2171)., 2021-05-18

Li, X., Dong, Y., Zhang, Y., Sun, H., **Zhang, R.**, Ding, H., DDQN-Based Cost-Efficient Skipping-Based Sensing Scheme for Cognitive Radio Transmissions, China National Patent, CN112367131A, 2021-02-12

Technique Skills

Programming: C, C++, Python, Verilog HDL, Assembly Language, Matlab
Frameworks: PyTorch, TensorFlow2, JAX, OpenGL, OpenCV, Django, ROS
Research Area: Reinforcement Learning, LLMs, Robotics

WORK EXPERIENCE

Applied Scientist Intern, AWS, Quick Team, **Amazon** 05/2026-08/2026
Project: CalendarBench: Evaluating Temporally Grounded LLM Agents
● Investigated why reliable standalone temporal reasoning breaks down when embedded in multi-step agent workflows.
● Built a 2,240-task mailbox-and-calendar environment integrating seven temporal operations with agent tool use.
● Evaluated 18 LLMs, including Fable 5, all below 70% success; failure analysis identified evidence handling, rather than computation, as the main frontier bottleneck.

Applied Scientist Intern, Supply Chain Optimization Technology, **Amazon** 05/2025-08/2025
Project: Learning Optimal Inventory Policies under Product Substitution using Hierarchical Reinforcement Learning
● Proposed a novel RL framework and training pipeline for realistic inventory optimal control
● Accepted at a premier internal conference, Amazon Machine Learning Conference, for a highlight talk

Research intern, AI-Lab, **Dalian Hi-Think Computer Co.** 04/2022-06/2022
Project: Japanese Script Recognition; Defect Detection; Deep Learning Framework Migration
● Improved CRNN and Cascade RCNN efficiency to detect Japanese Script
● Applied object detection deep learning model and edge detection to do the defect detection on flooring
● Migrated SOTA CV algorithms developed on PyTorch and Tensorflow to the MindSpore framework

Algorithm Engineer intern, **Panasonic Software Development Centre Dalian Co., Ltd** 06/2021-07/2021
Project: Time and Attendance System based on face recognition
● Researched the face recognition algorithm and designed the position detection of the face for each frame, increasing the recognition rate by ten times to reach 30fps

HONORS AND AWARDS

Paul Utgoff Memorial Graduate Scholarship 01/2025
Outstanding Graduates 06/2022
Second Prize, China Computer Design Competition 05/2020
Honorable Prize, COMAP's Mathematical Contest in Modelling 02/2020
Scholarship for Academic Excellence 09/2019

Reviewer Service

NeurIPS: 2026 (**top reviewer**), 2025, 2024
ICLR: 2027
ICML: 2026, 2025
AISTATS: 2025
RLC: 2025
AAAI: 2027