

DAMAN ARORA

damana@andrew.cmu.edu $\diamond$ [daman1209arora.github.io](https://github.com/daman1209arora)

EDUCATION

Carnegie Mellon University 2024–2029 (expected)
Ph.D. in Machine Learning; GPA: **4.0**
Advisor: Andrea Zanette

Indian Institute of Technology Delhi 2018–2023
B.Tech. and M.Tech. in Computer Science; CGPA: **9.4**
Thesis: Learning Generalized Neural Policies for Relational MDPs
Advisors: Mausam and Parag Singla

PUBLICATIONS (* denotes equal contribution)

Xuecheng Liu*, **Daman Arora***, Gokul Swamy, Andrea Zanette, “Message Passing Enables Efficient Reasoning,” *Conference on Language Modeling (COLM)*, **Outstanding Paper**, 2026. [arXiv:2607.01077](https://arxiv.org/abs/2607.01077).

Daman Arora, Andrea Zanette, “Training Language Models to Reason Efficiently,” *Conference on Neural Information Processing Systems (NeurIPS)*, 2025. [arXiv:2502.04463](https://arxiv.org/abs/2502.04463).

Fahim Tajwar*, Guanning Zeng*, Yueer Zhou, Yuda Song, **Daman Arora**, Yiding Jiang, Jeff Schneider, Ruslan Salakhutdinov, Haiwen Feng, Andrea Zanette, “Maximum Likelihood Reinforcement Learning,” *International Conference on Machine Learning (ICML)*, **Oral**; *Best Paper at SPOT (ICLR)*, 2026. [arXiv:2602.02710](https://arxiv.org/abs/2602.02710).

Daman Arora*, Himanshu Gaurav Singh*, Mausam, “Have LLMs Advanced Enough? A Challenging Problem Solving Benchmark for Large Language Models,” *Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2023. [arXiv:2305.15074](https://arxiv.org/abs/2305.15074).

Guanning Zeng*, Zhaoyi Zhou, **Daman Arora**, Andrea Zanette, “Shrinking the Variance: Shrinkage Baselines for Reinforcement Learning with Verifiable Rewards,” *International Conference on Machine Learning (ICML)*, 2026. [arXiv:2511.03710](https://arxiv.org/abs/2511.03710).

Vishal Sharma*, **Daman Arora***, Mausam, Parag Singla, “SymNet 3.0: Exploiting Long-Range Influences in Learning Generalized Neural Policies for Relational MDPs,” *Conference on Uncertainty in Artificial Intelligence (UAI)*, 2023. [PMLR](https://arxiv.org/abs/2305.17077).

Vishal Sharma, **Daman Arora**, Florian Geißer, Mausam, Parag Singla, “SymNet 2.0: Effectively Handling Non-Fluents and Actions in Generalized Neural Policies for RDDDL Relational MDPs,” *Conference on Uncertainty in Artificial Intelligence (UAI)*, 2022. [PMLR](https://arxiv.org/abs/2205.17077).

WORKSHOP PUBLICATIONS

Daman Arora*, Nalin Wadhwa*, Atharv Sonwane*, Abhav Mehrotra, Saiteja Utpala, Ramakrishna B Bairi, Aditya Kanade, Nagarajan Natarajan, “MASAI: Modular Architecture for Software-engineering AI Agents,” *NeurIPS Workshop on Open-World Agents*, 2024. [OpenReview](https://arxiv.org/abs/2405.17077).

Daman Arora, Subbarao Kambhampati, “Learning and Leveraging Verifiers to Improve Planning Capabilities of Pre-trained Language Models,” *ICML Workshop on Knowledge and Logical Reasoning in the Era of Data-driven Learning*, 2023. [arXiv:2305.17077](https://arxiv.org/abs/2305.17077).

PREPRINTS

Alvin Zhang, Xuecheng Liu, Zixuan Wang, Fahim Tajwar, **Daman Arora**, Ruslan Salakhutdinov, Daniel Khashabi, Yuda Song, Andrea Zanette, “Harness Learning Enables Generalizable Test-Time Adaptation,” *arXiv preprint*, 2026. [arXiv:2609.35738](#).

Shrinivas Ramasubramanian, **Daman Arora**, Fahim Tajwar, Guanning Zeng, Qingyang Wu, Zhongzhu Zhou, Chenfeng Xu, Haiwen Feng, Yuda Song, Aarti Singh, Ruslan Salakhutdinov, J. Andrew Bagnell, Jeff Schneider, Andrea Zanette, “Tail-Likelihood Reinforcement Learning,” *arXiv preprint*, 2026. [arXiv:2609.02987](#).

Daman Arora*, Anush Kini*, Sayak Ray Chowdhury, Nagarajan Natarajan, Gaurav Sinha, Amit Sharma, “GAR-meets-RAG Paradigm for Zero-Shot Information Retrieval,” *arXiv preprint*, 2023. [arXiv:2310.20158](#).

HONORS

Outstanding Paper , Conference on Language Modeling	2026
IIT Delhi Merit Award (top 7%)	2019
KVPY All-India Rank 15	2018
JEE Advanced All-India Rank 158; JEE Main All-India Rank 118	2018

WORK EXPERIENCE

Microsoft Research India	June 2023–June 2024
Research Fellow	
Host: Nagarajan Natarajan; Retrieval and Software Engineering Agents	
Sprinklr	May 2022–July 2022
Software Engineer Intern	
UiPath	May 2021–July 2021
Software Engineer Intern	