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Education_

Stanford University, Ph.D.

United States

Department of Computer Science, Advisor: Chelsea Finn

2021 - present

POSTECH, M.S.

South Korea

Department of Computer Science and Engineering, Advisor: Seungjin Choi

2018

POSTECH, B.S.

South Korea

Department of Mathematics

2016

Publications

- [21] <u>Yoonho Lee</u>, Jonathan Williams, Henrik Marklund, Archit Sharma, Eric Mitchell, Anikait Singh, Chelsea Finn. "*Test-Time Alignment via Hypothesis Reweighting*". arXiv preprint arXiv:2412.08812
- [20] Yuejiang Liu, Jubayer Ibn Hamid, Annie Xie, <u>Yoonho Lee</u>, Maximilian Du, Chelsea Finn. "Bidirectional Decoding: Improving Action Chunking via Closed-Loop Resampling". arXiv preprint arXiv:2408.17355
- [19] <u>Yoonho Lee</u>, Michelle Lam, Helena Vasconcelos, Michael S. Bernstein, Chelsea Finn. "Clarify: Improving Model Robustness With Natural Language Corrections". The ACM Symposium on User Interface Software and Technology (**UIST 2024**), NeurIPS 2023 Workshops: XAIA, ICBINB
- [18] Caroline Choi*, <u>Yoonho Lee*</u>, Annie S. Chen, Allan Zhou, Aditi Raghunathan, Chelsea Finn. "AutoFT: Learning an Objective for Robust Fine-Tuning". NeurIPS 2023 Workshop on Distribution Shifts
- [17] Annie S. Chen, <u>Yoonho Lee</u>, Amrith Setlur, Sergey Levine, Chelsea Finn. "Confidence-Based Model Selection: When to Take Shortcuts for Subpopulation Shifts". NeurIPS 2023 Workshop on Distribution Shifts
- [16] Caroline Choi*, Fahim Tajwar*, <u>Yoonho Lee*</u>, Huaxiu Yao, Ananya Kumar, Chelsea Finn. "Conservative Prediction via Data-Driven Confidence Minimization". Transactions on Machine Learning Research (**TMLR 2024**), ICLR 2023 Workshops: TrustML, ME-FoMo
- [15] Annie S. Chen*, <u>Yoonho Lee*</u>, Amrith Setlur, Sergey Levine, Chelsea Finn. "*Project and Probe: Sample-Efficient Domain Adaptation by Interpolating Orthogonal Features*". 12th International Conference on Learning Representations (**ICLR 2024**, **Spotlight**) ICLR 2023 Workshops: TrustML (Oral), ME-FoMo
- [14] Johnathan Wenjia Xie, <u>Yoonho Lee</u>, Annie S. Chen, Chelsea Finn. "Self-Guided Masked Autoencoders for Domain-Agnostic Self-Supervised Learning". 12th International Conference on Learning Representations (ICLR 2024)
- [13] Eric Mitchell, <u>Yoonho Lee</u>, Alexander Khazatsky, Christopher D Manning, Chelsea Finn. "DetectGPT: Zero-Shot Machine-Generated Text Detection using Probability Curvature". 40th International Conference on Machine Learning (ICML 2023, Long Oral)
- [12] Yoonho Lee*, Annie S. Chen*, Fahim Tajwar, Ananya Kumar, Huaxiu Yao, Percy Liang, Chelsea Finn. "Surgical Fine-Tuning Improves Adaptation to Distribution Shifts". 11th International Conference on Learning Representations (ICLR 2023)
- [11] Yoonho Lee, Huaxiu Yao, Chelsea Finn. "Diversify and Disambiguate: Out-of-Distribution Robustness via Disagreement". 11th International Conference on Learning Representations (ICLR 2023)
- [10] <u>Yoonho Lee</u>, Chelsea Finn, Stefano Ermon. *"Relaxing the Kolmogorov Structure Function for Realistic Computational Constraints"*. NeurIPS 2022 Workshop on Information-Theoretic Principles in Cognitive Systems
- [9] Balhae Kim, Jungwon Choi, Seanie Lee, <u>Yoonho Lee</u>, Jung-Woo Ha, Juho Lee. "On Divergence Measures for Bayesian Pseudocoresets". 36th Conference on Neural Information Processing Systems (**NeurIPS 2022**)
- [8] Huaxiu Yao*, Caroline Choi*, Bochuan Cao, <u>Yoonho Lee</u>, Pang Wei Koh, Chelsea Finn. "Wild-Time: A Benchmark of in-the-Wild Distribution Shift over Time". 36th Conference on Neural Information Processing Systems (**NeurIPS 2022**), Datasets & Benchmarks track
- [7] Yoonho Lee, Wonjae Kim, Wonpyo Park, Seungjin Choi. "Discrete Infomax Codes for Supervised Representation Learning". Entropy special issue "Theory and Applications of Information Processing Algorithms", 2022
- [6] Giung Nam*, Jongmin Yoon*, <u>Yoonho Lee</u>, Juho Lee. "*Diversity Matters When Learning From Ensembles*". 35th Conference on Neural Information Processing Systems (**NeurIPS 2021**)
- [5] Minkyo Seo*, <u>Yoonho Lee*</u>, Suha Kwak. "On the Distribution of Penultimate Activations of Classification Networks". 37th Conference on Uncertainty in Artificial Intelligence (**UAI 2021**)
- [4] Yoonho Lee, Juho Lee, Sung Ju Hwang, Eunho Yang, Seungjin Choi. "Neural Complexity Measures". 34th Conference on Neural Information Processing Systems (NeurIPS 2020)

- [3] Juho Lee*, <u>Yoonho Lee*</u>, Jungtaek Kim, Eunho Yang, Sung Ju Hwang, Yee Whye Teh. "Bootstrapping Neural Processes". 34th Conference on Neural Information Processing Systems (**NeurIPS 2020**)
- [2] Wonjae Kim, <u>Yoonho Lee</u>. "Learning Dynamics of Attention: Human Prior for Interpretable Machine Reasoning". 33rd Conference on Neural Information Processing Systems (**NeurIPS 2019**)
- [1] Juho Lee, Yoonho Lee, Yee Whye Teh. "Deep Amortized Clustering". Oral, Sets and Partitions Workshop at NeurIPS 2019
- [0] Juho Lee, <u>Yoonho Lee</u>, Jungtaek Kim, Adam Kosiorek, Seungjin Choi, Yee Whye Teh. "Set Transformer: A Framework for Attention-based Permutation-Invariant Neural Networks". 36th International Conference on Machine Learning (**ICML 2019**)
- [-1] Yoonho Lee, Seungjin Choi. "Gradient-based meta-learning with learned layerwise metric and subspace". 35th International Conference on Machine Learning (ICML 2018)

Fellowships and Grants_____

OpenAI Superalignment Fellowship 2024

OpenAl

KFAS Doctoral Fellowship Sep. 2021 - present

Korea Foundation for Advanced Studies

Korean Presidential Science Scholarship Mar. 2012 - Mar. 2016

Korea Student Aid Foundation

Professional Service

Workshop organizer, NeurIPS Workshop on Distribution Shifts (2022, 2023)

Reviewer: NeurIPS (2018-2024; outstanding 2019 and 2021), ICML (2019-2024), ICLR (2021-2024), NeurIPS workshop proposals (2024), ICML workshop proposals (2024), AAAI (2024), AISTATS (2019-2022), IJCAI (2019-2021), ACML (2019-2020), ME-FoMo@ICLR (2023), TrustML@ICLR (2023).

Talks and Presentations _____

Moveworks, Mountain View, CA, USA	Dec. 2024
Centre for Frontier Al Research, Online	Aug. 2023
MosaicML, Online	Aug. 2023
ICLR 2023, Kigali, Rwanda	Apr. 2023
Deep Learning: Classics and Trends, Online	Mar. 2023
NeurIPS 2022, New Orleans, USA	Dec. 2022
ICML 2022, Baltimore, USA	Jul. 2022
NeurIPS 2021, Online	Dec. 2021
Post-NeurIPS Workshop @ KSC2020, Online	Dec. 2020
NeurIPS 2020, Online	Dec. 2020
NeurIPS 2019, Vancouver, Canada	Dec. 2019
Kakao Brain, South Korea	May. 2019, Oct. 2019
Second Korea-Japan Machine Learning Workshop, South Korea	Feb. 2019
ICML 2018, Stockholm, Sweden	Jul. 2018
Naver, South Korea	Apr. 2018

Teaching Experience _____

Teaching Assistant, CS330 Deep Multi-Task and Meta Learning, Stanford University	Sep. 2023 - Dec. 2023
Teaching Assistant, CS330 Deep Multi-Task and Meta Learning, Stanford University	Sep. 2022 - Dec. 2022
Teaching Assistant, Deep Learning, POSCO Group	Mar. 2017 - Jun. 2018
Teaching Assistant, Machine Learning for Business, Samsung Electronics	Sep. 2017 - Dec. 2017
Teaching Assistant, Al Job Training, POSTECH Institute of Al	Mar. 2017 - Jun. 2017
Teaching Assistant, CSED101 Programming and Problem Solving, POSTECH	Mar. 2017 - Jun. 2017