Yoonho Lee

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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*

- Thesis: Gradient-Based Meta-Learning with Learned Layerwise Metric and Subspace

POSTECH, B.S. *South Korea*

Department of Mathematics *2016*

Publications

[13] Eric Mitchell, **Yoonho Lee**, 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**)

[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] Balhae Kim, Jungwon Choi, Seanie Lee, **Yoonho Lee**, Jung-Woo Ha, Juho Lee. *"On Divergence Measures for Bayesian Pseudocoresets".* 36th Conference on Neural Information Processing Systems (**NeurIPS 2022**)

[9] Huaxiu Yao*, Caroline Choi*, Bochuan Cao, **Yoonho Lee**, 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

[8] **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

[7] Giung Nam*, Jongmin Yoon*, **Yoonho Lee**, Juho Lee. *"Diversity Matters When Learning From Ensembles".* 35th Conference on Neural Information Processing Systems (**NeurIPS 2021**)

[6] Minkyo Seo*, **Yoonho Lee***, Suha Kwak. *"On the Distribution of Penultimate Activations of Classification Networks".* 37th Conference on Uncertainty in Artificial Intelligence (**UAI 2021**)

[5] **Yoonho Lee**, Juho Lee, Sung Ju Hwang, Eunho Yang, Seungjin Choi. *"Neural Complexity Measures".* 34th Conference on Neural Information Processing Systems (**NeurIPS 2020**)

[4] Juho Lee*, **Yoonho Lee***, Jungtaek Kim, Eunho Yang, Sung Ju Hwang, Yee Whye Teh. *"Bootstrapping Neural Processes".* 34th Conference on Neural Information Processing Systems (**NeurIPS 2020**)

[3] Wonjae Kim, **Yoonho Lee**. *"Learning Dynamics of Attention: Human Prior for Interpretable Machine Reasoning".* 33rd Conference on Neural Information Processing Systems (**NeurIPS 2019**)

[2] Juho Lee, **Yoonho Lee**, 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

KFAS Doctoral Fellowship Sep. 2021 - present
Korea Foundation for Advanced Studies

HAI Google Cloud Credits Award Nov. 2022 - Nov. 2023
Stanford HAI, $15,000

Korean Presidential Science Scholarship Mar. 2012 - Mar. 2016
Korea Student Aid Foundation

Industry Experience

AITRICS *South Korea*
Research Scientist *Mar. 2020 - Aug. 2021*

Kakao *South Korea*
Research Scientist *Aug. 2018 - Mar. 2020*

Naver *South Korea*
Research Intern *Mar. 2018 - Jun. 2018*

Professional Service

Workshop organizer, NeurIPS 2022 Workshop on Distribution Shifts.

Reviewer: NeurIPS (2018-2022), ICML (2019-2023), ICLR (2021-2023), AISTATS (2019-2022), IJCAI (2019-2021), ACML (2019-2020), ME-FoMo@ICLR (2023), TrustML@ICLR (2023). Outstanding rewiewer awards at NeurIPS 2019, NeurIPS 2021.

Talks and Presentations

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
NeurIPS 2020, Online	Dec. 2020
NeurIPS 2019, Vancouver, Canada	Dec. 2019
Kakao Brain, South Korea	May 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. 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, AI Job Training, POSTECH Institute of AI	Mar. 2017 - Jun. 2017
Teaching Assistant, CSED101 Programming and Problem Solving, POSTECH	Mar. 2017 - Jun. 2017

Selected Coursework

Mathematics Introduction to {Geometry, Number Theory, Numerical Analysis}, Algebra, Homological Algebra, Algebraic Topology, General Topology, Analysis, Complex Analysis, Probability Theory, Statistics, Mathematical Logic

Computer Science Automata and Formal Languages, Data Analysis, Computational Geometry, Convex Optimization, Pattern Recognition, Machine Learning, Deep Learning for Visual Recognition, Linguistics for Natural Language Processing, Vision and Language