Yoonho Lee

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Education

Pohang University of Science and Technology (POSTECH) *Pohang, South Korea*

M.S. in Computer Science *2016 - 2018*

- Thesis: Gradient-Based Meta-Learning with Learned Layerwise Metric and Subspace [C1] (Advisor: Seungjin Choi)

Pohang University of Science and Technology (POSTECH) *Pohang, South Korea*

B.S. in Mathematics *2012 - 2016*

Publications

Conference Papers

[C6] Minkyo Seo*, **Yoonho Lee***, and Suha Kwak. *"On the Distribution of Penultimate Activations of Classification Networks".* 37th Conference on Uncertainty in Artificial Intelligence (**UAI 2021**)

[C5] **Yoonho Lee**, Juho Lee, Sung Ju Hwang, Eunho Yang, and Seungjin Choi. *"Neural Complexity Measures".* 34th Conference on Neural Information Processing Systems (**NeurIPS 2020**)

[C4] Juho Lee*, **Yoonho Lee***, Jungtaek Kim, Eunho Yang, Sung Ju Hwang, and Yee Whye Teh. *"Bootstrapping Neural Processes".* 34th Conference on Neural Information Processing Systems (**NeurIPS 2020**)

[C3] Wonjae Kim and **Yoonho Lee**. *"Learning Dynamics of Attention: Human Prior for Interpretable Machine Reasoning".* 33rd Conference on Neural Information Processing Systems (**NeurIPS 2019**)

[C2] Juho Lee, **Yoonho Lee**, Jungtaek Kim, Adam Kosiorek, Seungjin Choi, and Yee Whye Teh. *"Set Transformer: A Framework for Attention-based Permutation-Invariant Neural Networks".* 36th International Conference on Machine Learning (**ICML 2019**)

[C1] **Yoonho Lee** and Seungjin Choi. *"Gradient-based meta-learning with learned layerwise metric and subspace".* 35th International Conference on Machine Learning (**ICML 2018**)

Workshop Papers

[W1] Juho Lee, **Yoonho Lee**, and Yee Whye Teh. *"Deep Amortized Clustering ".* **Oral Presentation**, Sets and Partitions Workshop at **NeurIPS 2019**

Preprints

[P4] **Yoonho Lee**, Juho Lee. *" Efficient Checkpoint-Based Meta-Learning With Gradient Matching ".*

[P3] Giung Nam, Jongmin Yoon, **Yoonho Lee**, Juho Lee. *" Diversity Matters When Learning From Ensembles".*

[P2] Ari Pakman*, Yueqi Wang*, **Yoonho Lee***, Pallab Basu, Juho Lee, Yee Whye Teh, Liam Paninski. *"Amortized Probabilistic Detection of Communities in Graphs".*

[P1] **Yoonho Lee**, Wonjae Kim, Wonpyo Park, and Seungjin Choi. *" Discrete Infomax Codes for Supervised Representation Learning".*

Industry Experience

AITRICS *Seoul, South Korea*

Research Scientist *Mar. 2020 - Present*

- Worked on meta-learning [C5,P4] and probabilistic models [C4, P2, P3].

Kakao Corporation *Pangyo, South Korea*

Research Scientist *Aug. 2018 - Mar. 2020*

- Worked on set-input networks [C2, W1], interpretable attention mechanisms [C3], regularization for meta-learning [P1], and efficient knowledge distillation [C6].

Naver Corporation *Jeongja, South Korea*

Research Intern *Mar. 2018 - Jun. 2018*

- Worked on meta-learning optimizers.

Awards & Honors

Scholarships

KFAS Doctoral Study Abroad Fellowship Sep. 2021 -

Full-tuition scholarship with stipend for graduate studies abroad, Korea Foundation for Advanced Studies

Korean Presidential Science Scholarship Mar. 2012 - Mar. 2016

Full-tuition scholarship with stipend for undergraduate studies, Korea Student Aid Foundation

Awards

Outstanding Reviewer, Conference on Neural Information Processing Systems (NeurIPS) 2019

Travel Award, International Conference on Machine Learning (ICML) 2018

Silver Medal, Korean Mathematical Olympiad (KMO), High-school Division 2010

Gold Medal, Korean Mathematical Olympiad (KMO), Middle-school Division 2008

Reviewing Services

Advances in Neural Information Processing Systems (NeurIPS)	2018, 2019, 2020, 2021
International Conference on Machine Learning (ICML)	2019, 2020, 2021
International Conference on Learning Representations (ICLR)	2021, 2022
International Conference on Artificial Intelligence and Statistics (AISTATS)	2019, 2020, 2021
International Joint Conferences on Artificial Intelligence (IJCAI)	2019, 2020, 2021
Asian Conference on Machine Learning (ACML)	2019, 2020

Selected Coursework

Mathematics Modern Algebra 1-2, Analysis 1-2, Intro to Geometry, Intro to Number Theory, Intro to Numerical Analysis, General Topology Algebra 1, Algebraic Topology, Homological Algebra, Probability Theory, Theory of Functions of Complex Variables, Metamathematics

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

Talks and Presentations

Post-NeurIPS Workshop @ KSC2020, Online	Dec. 2020
NeurIPS, Online	Dec. 2020
NeurIPS, Vancouver, Canada	Dec. 2019
Kakao Brain, Seongnam, South Korea	Oct. 2019
Kakao Brain, Seongnam, South Korea	May 2019
Second Korea-Japan Machine Learning Workshop, South Korea	Feb. 2019
ICML, Stockholm, Sweden	Jul. 2018
Naver, Seongnam, South Korea	Apr. 2018

Teaching Experience

Teaching Assistant, Deep Learning Course, POSCO Group	Mar. 2017 - Jun. 2018
Teaching Assistant, Business ML Course, Samsung Electronics Device Solutions	Sep. 2017 - Dec. 2017
Teaching Assistant, AI Job Training Course, POSTECH Institute of AI	Mar. 2017 - Jun. 2017
Teaching Assistant, CSED101 (Programming and Problem Solving), POSTECH	Mar. 2017 - Jun. 2017

Skills

Languages Python, LaTeX, Matlab, C, C++, Java

Libraries PyTorch, TensorFlow, NumPy, SciPy, Pandas, Seaborn