Suyoung Lee

CONTACT INFORMATION	Samsung Seoul R&D Campus 56 Seongchon-gil, Seocho-gu, Seoul, Republic of Korea	**Email**: suyounglee424@gmail.com su-young.lee@samsung.com **Homepage**: https://suyoung-lee.github.io

RESEARCH INTERESTS

Deep reinforcement learning (RL), especially meta-RL, generalization, offline RL, and sequential decision-making.

CAREER

Staff Engineer, Samsung Research, Seoul, Republic of Korea.   *Mar. 2024 – present*
Language Intelligence Team.

EDUCATION

Ph.D., Electrical Engineering.   *Aug. 2022 – Feb. 2024*
Korea Advanced Institute of Science and Technology (KAIST).
Advisor: Prof. Youngchul Sung.

Ph.D. Candidate, Electrical Engineering.   *Mar. 2019 – Aug. 2022*
Korea Advanced Institute of Science and Technology (KAIST).
Advisor: Prof. Sae-Young Chung.

M.S., Electrical Engineering.   *Mar. 2017 – Feb. 2019*
Korea Advanced Institute of Science and Technology (KAIST).
Advisor: Prof. Sae-Young Chung.

B.S., Electrical Engineering   *Feb. 2012 – Feb. 2017*
Korea Advanced Institute of Science and Technology (KAIST).

Hansung Science High School, Seoul, Republic of Korea.   *Mar. 2010 – Feb. 2012*

HONORS

Outstanding Ph.D. Dissertation Award.   *2024*
  Thesis: *Meta-Reinforcement Learning with Imaginary Tasks*, KAIST EE.
Qualcomm-KAIST Innovation Awards.   *2018*
  Paper competition awards for graduate students, Qualcomm.
Un Chong-Kwan Scholarship Award.   *2017*
  For achievement of excellence in 2017 entrance examination, KAIST EE.

PUBLICATIONS   [C] Conference   [W] Workshop   [P] Preprint

[C1] **Suyoung Lee**, Sungik Choi, and Sae-Young Chung. "*Sample-Efficient Deep Reinforcement Learning via Episodic Backward Update.*" Neural Information Processing Systems (NeurIPS) 2019.

[C2] **Suyoung Lee** and Sae-Young Chung. "*Improving Generalization in Meta-RL with Imaginary Tasks from Latent Dynamics Mixture.*" Neural Information Processing Systems (NeurIPS) 2021.

[C3] **Suyoung Lee**, Myungsik Cho, and Youngchul Sung. "*Parameterizing Non-Parametric Meta-Reinforcement Learning Tasks via Subtask Decomposition.*" Neural Information Processing Systems (NeurIPS) 2023.

[C4] Jeonghye Kim, **Suyoung Lee**, Woojun Kim, and Youngchul Sung "*Decision ConvFormer: Local Filtering in Metaformer is Sufficient for Decision Making.*" International Conference on Learning Representations (ICLR) 2024 as **spotlight presentation (366/7262= 5.0%)**.

[C5] Myungsik Cho, Jongeui Park, **Suyoung Lee**, and Youngchul Sung. "*Hard Task First: Multi-Task Reinforcement Learning through Task Scheduling*." International Conference on Machine Learning (ICML) 2024.

[C6] Jeonghye Kim, **Suyoung Lee**, Woojun Kim, and Youngchul Sung "*Adaptive Q-Aid for Conditional Supervised Learning in Offline Reinforcement Learning*." Neural Information Processing Systems (NeurIPS) 2024.

[W1] **Suyoung Lee** and Sae-Young Chung. "*Adaptive Intrinsic Motivation with Decision Awareness*." Decision Awareness in Reinforcement Learning Workshop at International Conference on Machine Learning (ICML) 2022.

[W2] Jeonghye Kim, **Suyoung Lee**, Woojun Kim, and Youngchul Sung. "*Decision ConvFormer: Local Filtering in MetaFormer is Sufficient for Decision Making*." Foundation Models for Decision Making Workshop at Neural Information Processing Systems (NeurIPS) 2023.

LANGUAGES	Korean (native) English (fluent) – TOEIC 950 (23.06.28) Russian (basic) (International linguistic experience at Tashkent International School, 2007–2009.)
PROGRAMMING LANGUAGES	MATLAB and Python (PyTorch/TensorFlow). GitHub: https://github.com/suyoung-lee

ACADEMIC SERVICES

Invited talk

- KAIST EE Graduate School REEsearch Party: academic seminar by doctoral graduates who won outstanding thesis awards, April 2024.

Conference reviewer

- International Conference on Machine Learning (ICML): 2021–2024

- Neural Information Processing Systems (NeurIPS): 2021–2024

- Internation Conference on Learning Representations (ICLR): 2024

Program committee

- Foundation Models for Decision Making Workshop (FMDM) at Neural Information Processing Systems (NeurIPS) 2023.

TEACHING EXPERIENCE

Teaching assistant (KAIST) *Spring 2018 to Fall 2020*

- EE326 Introduction to Information Theory and Coding.

- EE210 Probability and Introductory Random Processes.

- EE105 Electrical Engineering: Changing the World.

- EE405 Electronics Design Lab. Network of Smart Things.

- EE807 Special Topics in EE. Deep Reinforcement Learning and AlphaGo.
    - Course rewarded for the **outstanding TA award** at KAIST EE.

- EE405 Electronics Design Lab. Network of Smart Systems.