

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	AI Agents LLM agents, reasoning, and planning. Deep reinforcement learning (RL) Meta-RL, generalization sample efficiency, exploration, and offline RL.	
CAREER	Staff Engineer , Samsung Research, Seoul, Republic of Korea. <i>Mar. 2024 – present</i> Language Intelligence Team. Semantic T/F, AI Model Team.	
EDUCATION	Ph.D. , Electrical Engineering. <i>Aug. 2022 – Feb. 2024</i> Korea Advanced Institute of Science and Technology (KAIST). Advisor: Prof. Youngchul Sung. Ph.D. Candidate , Electrical Engineering. <i>Mar. 2019 – Aug. 2022</i> Korea Advanced Institute of Science and Technology (KAIST). Advisor: Prof. Sae-Young Chung. M.S. , Electrical Engineering. <i>Mar. 2017 – Feb. 2019</i> Korea Advanced Institute of Science and Technology (KAIST). Advisor: Prof. Sae-Young Chung. B.S. , Electrical Engineering <i>Feb. 2012 – Feb. 2017</i> Korea Advanced Institute of Science and Technology (KAIST). Hansung Science High School, Seoul, Republic of Korea. <i>Mar. 2010 – Feb. 2012</i>	
HONORS	Outstanding Ph.D. Dissertation Award. <i>2024</i> Thesis: <i>Meta-Reinforcement Learning with Imaginary Tasks</i> , KAIST EE. Qualcomm-KAIST Innovation Awards. <i>2018</i> Paper competition awards for graduate students, Qualcomm. Un Chong-Kwan Scholarship Award. <i>2017</i> For achievement of excellence in 2017 entrance examination, KAIST EE.	
PUBLICATIONS	[C] Conference [W] Workshop [P] Preprint [J] Journal [C1] Suyoung Lee , Sungik Choi, and Sae-Young Chung. “ <i>Sample-Efficient Deep Reinforcement Learning via Episodic Backward Update.</i> ” Neural Information Processing Systems (NeurIPS) 2019. [C2] Suyoung Lee and Sae-Young Chung. “ <i>Improving Generalization in Meta-RL with Imaginary Tasks from Latent Dynamics Mixture.</i> ” Neural Information Processing Systems (NeurIPS) 2021. [C3] Suyoung Lee , Myungsik Cho, and Youngchul Sung. “ <i>Parameterizing Non-Parametric Meta-Reinforcement Learning Tasks via Subtask Decomposition.</i> ” 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.
- [J1] Gyeongmin Kim, Jeonghye Kim, **Suyoung Lee**, Jaewoo Baek, Howon Moon, Sangheon Shin, and Youngchul Sung. “*Robust Reinforcement Learning Under Dimension-Wise State Information Drop.*” IEEE Access, 2024.

LANGUAGES	<p>Korean (native)</p> <p>English (fluent) – TOEIC 950 (23.06.28)</p> <p>Russian (basic)</p> <p>(International linguistic experience at Tashkent International School, 2007–2009.)</p>
PROGRAMMING LANGUAGES	<p>MATLAB and Python (PyTorch/TensorFlow).</p> <p>GitHub: https://github.com/suyoung-lee</p>
ACADEMIC SERVICES	<p>Invited talk</p> <ul style="list-style-type: none"> KAIST EE Graduate School REEsearch Party: academic seminar by doctoral graduates who won outstanding thesis awards, April 2024. <p>Conference reviewer</p> <ul style="list-style-type: none"> International Conference on Machine Learning (ICML): 2021–2024 Neural Information Processing Systems (NeurIPS): 2021–2024 International Conference on Learning Representations (ICLR): 2024 <p>Program committee</p> <ul style="list-style-type: none"> Foundation Models for Decision Making Workshop (FMDM) at Neural Information Processing Systems (NeurIPS) 2023.
TEACHING EXPERIENCE	<p>Teaching assistant (KAIST) <i>Spring 2018 to Fall 2020</i></p> <ul style="list-style-type: none"> 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.