Taewon Park

Contact Information

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Research Interest

I am currently focused on advancing the efficiency and generalization of sequence models. My work involves memory-augmented neural architectures and modular representation learning for AI, aiming to enable capabilities such as:

- Long-context reasoning,
- Systematic or compositional generalization.

Education

Kyungpook National Unversity (KNU), Daegu, Republic of Korea

Integrated M.S. and Ph.D. in Artificial Intelligence — Mar. 2019 – Present
Advisor: Prof. Hyun-Chul Kim and Prof. Minho Lee
GPA: 4.44/4.5

B.S. in Electronics Engineering — Mar. 2015 – Feb. 2019
GPA: 4.3/4.5

Experience

Canegie Mellon University (CMU), Pittsburgh, PA, USA

Visiting Scholar in School of Computer Science — Aug. 2022 – Feb. 2023
Sponsored by AI-related project-focused intensive program fully funded by the Korean Government

Nara Institute of Science and Technolog (NAIST), Nara, Japan

Research Internship in Graduate School of Information Science — Jan. 2020 – Feb. 2020
Advisor: Prof. Kazushi Ikeda

Conference Publications

[C4] **Discrete Dictionary-based Decomposition Layer for Structured Representation Learning**
Taewon Park, Hyun-Chul Kim, Minho Lee
Conference on Neural Information Processing Systems (**NeurIPS**), 2024.

[C3] **Attention-based Iterative Decomposition for Tensor Product Representations**
Taewon Park, Inchul Choi, Minho Lee
International Conference on Learning Representations (**ICLR**), 2024.

[C2] **Learning Associative Reasoning Towards Systematicity using Modular Networks**
Jun-Hyun Bae*, **Taewon Park***, Minho Lee (**: equal contribution*)
International Conference on Neural Information Processing (**ICONIP**), 2022.

[C1] **4W1H Keyword Extraction-based Summarization Model**
Seungyeon Lee, **Taewon Park**, Minho Lee
International Conference on Electronics, Information, and Communication (**ICEIC**), 2021.

Journal Publications

[J1] **Distributed associative memory network with memory refreshing loss**
Taewon Park*, Inchul Choi*, Minho Lee (**: equal contribution*)
Neural Networks, Vol. 144, pp. 33–48, Dec 2021. (2020-JCR-IF: 8.050, 25/273, Top 8.9%).

Preprint Publications

[P1] **EPT: Explosive Prompt Tuning For Parameter-Efficient with Large Norm Prompt**
Won Yong Jo, **Taewon Park**, Minho Lee, Ho-Young Jung
Preprint, 2024.

Research Project

Interpretation of Korea Traditional Records via Deep Learning
funded by **NRF** (National Research Foundation of Korea) Mar. 2023 – Aug. 2024

Knowledge-augmented AI Agent Through Conversations
funded by **NRF** (National Research Foundation of Korea) Mar. 2023 – Sep. 2023

Context Awareness-based Automatic Report Generation `[Project Manager]`
funded by **ADD** (Agency for Defense Development) Dec. 2019 – Jul. 2022

Context Awareness-based Interactive AI Development
funded by **IITP** (Institute for Information & communication Technology Planning & evaluation) Mar. 2019 – Dec. 2020

Honors and Awards

- KNU President's Excellence Award in Brain Korea Forum 2021
- Academic Excellence Scholarship in Electronics Engineering Department 2019
- National Science & Technology Scholarship 2017 – 2018

References

Dr. Hyun-Chul Kim
Assistant Professor, Dept. of Artificial Intelligence, Kyungpook National University
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Dr. Minho Lee
Professor, Dept. of Artificial Intelligence, Kyungpook National University
Email: minholee@gmail.com