Hye Yoon Lee

Accelerated Intelligent Systems (AISys) Lab. @ SNU
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RESEARCH INTERESTS

Trustworthy and Safe AI (Adversarial attack and defense)
Accelerating AI applications (data-free learning, model compression, knowledge distillation, quantization, etc)
Generative AI (GANs, VAEs, Diffusion Models)

EDUCATION

Sep. 2023 ~ Present	**Seoul National University** Ph.D. in Department of Electrical and Computer Engineering	Seoul, Korea
Sep. 2021 ~ Aug. 2023	**Yonsei University** M.S. in Computer Science, *GPA(4.45 / 4.5)*	Seoul, Korea
Mar. 2019 ~ Aug. 2021	**Yonsei University** B.S. in Computer Science, *GPA(4.09 / 4.5)*	Seoul, Korea

PUBLICATIONS

❖ Dain Kwon, Kanghyun Choi, **Hyeyoon Lee**, SunJong Park, and Jinho Lee. "TopGQuant: Quick Quantization for Graph Neural Networks by Exploiting Neighborhood Topology." **Under Review at NeurIPS 2024**.

❖ SunJong Park, **Hyeyoon Lee**, Kanghyun Choi, Dain Kwon, Jongkil Park, Seongsik Park, and Jinho Lee. "TAS-GNN: Topology-Aware Spiking Graph Neural Networks for Graph Classification." **Under Review at NeurIPS 2024**.

❖ **Hyeyoon Lee**, Kanghyun Choi, Dain Kwon, SunJong Park, Mayoore Selvarasa Jaiswal, Noseong Park, Jonghyun Choi, and Jinho Lee. "DataFreeShield: Defending Adversarial Attacks without Training Data." **ICML 2024.**

❖ Jaewon Jung, Jaeyong Song, Hongsun Jang, **Hyeyoon Lee**, Kanghyun Choi, Noseong Park, and Jinho Lee. "Fast Adversarial Training with Dynamic Batch-level Attack Control." **DAC 2023**.

❖ Kanghyun Choi, **Hyeyoon Lee**, Deokki Hong, Joonsang Yu, Noseong Park, Youngsok Kim, and Jinho Lee. "It's all in the teacher: Zero-shot quantization brought closer to the teacher." **CVPR 2022 (Oral Presentation)**.

❖ Deokki Hong, Kanghyun Choi, **Hyeyoon Lee**, Joonsang Yu, Noseong Park, Youngsok Kim, and Jinho Lee. "Enabling hard constraints in differentiable neural network and accelerator co-exploration." **DAC 2022.**

AWARDS

❖ **The 28th Humantech Paper Award (Silver Prize)**   *2022*
     Co-Author
❖ **Software Capstone Design Excellence Award**   *2021*
     Hosted by Yonsei CS Department
❖ **Asan Foundation (1ˢᵗ Prize)**   *2020*
     IT approach to social welfare

TEACHING EXPERIENCE

Yonsei University *(Teaching Assistant)* Logic Circuit Design (Fall 2021), Multi-core and GPU Programming (Spring 2022)
Seoul National University *(Teaching Assistant)* Digital System Design and Practices (Fall 2023), Programming Methodology (Spring 2024)

PROJECTS

- ❖ Accelerating Diffusion Models for Landscape Generation *2023*
  Electronics and Telecommunications Research Institute (ETRI)
- ❖ Semantic Modification Method for High-resolution Face Images *2022*
  Electronics and Telecommunications Research Institute (ETRI)
- ❖ High-resolution Face Image Generation by Transformer-based GAN *2021*
  Electronics and Telecommunications Research Institute (ETRI)