Seonggon Kim

Dept. of Computer Science and Engineering, POSTECH, Republic of Korea
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RESEARCH INTEREST

I'm interested in model compression, particularly in enhancing memory efficiency and acceleration of AI through **Quantization**. My recent research focuses on **Low-Precision Training** and fine-tuning, which aims to achieve acceleration, memory reduction, and performance maximization during training. I'm currently focusing on **Training-Inference Acceleration via Quantization and Low-rank Approximation.**

KEYWORD
- Low-Precision Training
- Quantization for LLM
- Low-rank Approximation
- CUDA Kernel optimization

EDUCATION

POSTECH   Pohang, Korea

Ph.D. in Computer Science and Engineering   Sep. 2023 - Present

KYUNG HEE UNIVERSITY   Yongin, Korea

B.S. in Computer Science and Engineering   Feb. 2017 - Aug. 2023

PUBLICATIONS

HOT: Hadamard-based Optimized Training
Seonggon Kim, Juncheol Shin, Seung-taek Woo, Eunhyeok Park
Computer Vision and Pattern Recognition (**CVPR 2025**), Nashville.

PTQ4VM: Post-training Quantization for Visual Mamba
Younghyun Cho*, Changhun Lee*, **Seonggon Kim**, Eunhyeok Park
Winter Conference on Applications of Computer Vision (**WACV 2025 Oral**), Tucson.

Merge-Friendly Post-Training Quantization for Multi-Target Domain Adaptation
Juncheol Shin, Minsang Seok, **Seonggon Kim**, Eunhyeok Park
International Conference on Machine Learning (**ICML 2025**), Vancouver.

HoLA: Overcoming the full-finetuning with Hadamard-oriented LoRA
Seonggon Kim, Taehyeon Kim, Byeori Kim, Eunhyeok Park
Neural Information Processing Systems (**NeurIPS 2025**, Under review), San Diego.

EXPERIENCE

SOFTWARE ENGINEER INTERN
Spirent Communications

Jul. 2022 - Feb. 2023
San Jose, CA, USA

- C++ backend engineer of 5G testing program 'LandSlide'
- C++ backend engineer of 5G analysis program 'Drools'

SOFTWARE ENGINEER INTERN
Common Computer

Feb. 2022 - Jun. 2022
Seoul, Korea

- Transplanted Dapp 'AI NFT' from Ethereum to Harmony
- Developed smart contract of 'AI NFT' based on ERC-721
- Presented at ETHDenver 2022

RESEARCH INTERN
SI Analytics

Mar. 2021 - Dec. 2021
Daejeon, Korea

- Semantic segmentation model for land cover classification of Satellite imagery
- Unsupervised, Semi-supervised Learning and Domain Adaptation

AWARDS & HONORS

- ETHDenver 2022 Blockchain Hackathon, NFT project, 3rd Prize   Feb. 2022
- CVPR 2021 Earthvision workshop, Land Cover Classification Challenge,   Jun. 2021
  Selected as the final five teams

TEACHING EXPERIENCE

TEACHING ASSISTANT
POSTECH

Mar. 2025 - June. 2025
Pohang, Korea

- CSED311: Computer Architecture [2025-Spring]