Seonggon Kim

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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 currently focus on **CUDA kernel optimization**.

KEYWORD

- Quantization
- Low-precision training
- Fully quantized training
- Post-training quantization for LLM
- CUDA Kernel optimization

EDUCATION

POSTECH Pohang, Korea
M.S/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, Under review**), Vancouver.

EXPERIENCE

SOFTWARE ENGINEER INTERN Jul. 2022 ~ Feb. 2023
Spirent Communications San Jose, CA, USA

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

SOFTWARE ENGINEER INTERN Feb. 2022 ~ Jun. 2022
Common Computer 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 Mar. 2021 ~ Dec. 2021
SI Analytics - Hanwha Aerospace 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, Selected as the final five teams Jun. 2021