Seonggon Kim

Dept. of Computer Science and Engineering, POSTECH, Republic of Korea
sungonuni@postech.ac.kr

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 focus on **Fully quantized training in mx format**.

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   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   Mar. 2025 - June. 2025
POSTECH   Pohang, Korea
- CSED311: Computer Architecture [2025-Spring]