

Donghyun Kim

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Research Interests

Computer Systems, Systems for Machine Learning, Cloud Computing Systems

Education

The University of Texas at Austin

Ph.D. in Computer Science

- Advised by Professor Aditya Akella and Professor Daehyeok Kim

Austin, TX USA

Aug 2023 - Present

Seoul National University

M.S in Artificial Intelligence

- Advised by Professor Byung-Gon Chun

Seoul, South Korea

Sep 2020 - Aug 2022

Pohang University of Science and Technology (POSTECH)

B.S. in Convergence IT Engineering, Minor in Computer Science

Pohang, South Korea

Mar 2014 - Aug 2020

Publications

1. **Band: Coordinated Multi-DNN Inference on Heterogeneous Mobile Processors**, Joo Seong Jeong*, Jingyu Lee*, Donghyun Kim, Changmin Jeon, Changjin Jeong, Youngki Lee, Byung-Gon Chun. International Conference on Mobile Systems, Applications, and Services(MobiSys), 2022.

* equal contribution

Professional Experience

FriendliAI

Software Engineer

- Building a DL inference service for deploying and autoscaling large language models on cloud resources.

Seoul, South Korea

Jan 2022 - Jun 2023

Software Platform Lab, SNU

Graduate Research Assistant

- Developed *Band*, a coordinated Multi-DNN Inference system for mobile devices with heterogeneous processors.
- Developed *Crane*, a GPU cluster management system for DL training and AutoML workloads.

Seoul, South Korea

Jan 2020 - Aug 2022

Teaching

Software Development Principles and Practices

Teaching Assistant

- Led practice sessions, managed team projects, and graded assignments.

Seoul National University

Fall 2020, Fall 2021

Honors and Awards

National Scholarship from ICT Creative Consilience Program

Mar 2014 - Aug 2019

Skills

Language	Python, C++, C, Go, Rust
Framework	PyTorch, Tensorflow Lite
DevOps	Kubernetes, Docker Swarm
CI/CD	Argo Workflow, Argo CD, Travis CI
Cloud	AWS, GCP, Azure