

Sukjoon Oh

Ph.D Student, School of Electrical Engineering, KAIST, Korea

Email: sjoon@kaist.ac.kr

GitHub: github.com/sjoon-oh

RESEARCH INTEREST

Operating System, Distributed System, State Machine Replication, Consensus Protocol ,
Key-Value Store, Remote Direct Memory Access, Vector Database

EDUCATION

Korea Advanced Institute of Science and Technologies (KAIST) Daejeon, Korea
Ph.D Student, School of Electrical Engineering Mar. 2024 – Current

Korea Advanced Institute of Science and Technologies (KAIST) Daejeon, Korea
M.S., School of Electrical Engineering Mar. 2022 – Feb. 2024
Thesis: State Machine Replication with Dependency Check Offloading
Cumulative GPA: 3.70/4.30

Yonsei University Seoul, Korea
B.S., School of Electrical and Electronic Engineering Mar. 2020 – Feb. 2022
Cumulative GPA: 4.03/4.30

Konkuk University Seoul, Korea
Certificated, Department of Electronics Engineering Mar. 2016 – Feb. 2020
Cumulative GPA: 4.26/4.50

PUBLICATIONS

1. Dohyun Kim, **Sukjoon Oh** and Youjip Won, “MIDAS: Multi-core scalable consensus via Distributed Linearization”
* *Under review (SOSP 2026)*.
2. **Sukjoon Oh**, Minki Kang, Dohyun Kim, Baotong Lu, Jing Liu, Qianzi Zhang, Qi Chen and Youjip Won, “AKER: Density-Aware Approximate Caching for Vector Search”, *Proc. of the VLDB Endow.* 19(10), 2026.

EXPERIENCE

Research Intern Mar. 2025 – Jun. 2025
Microsoft Canada Vancouver, Canada

Research Intern Sep. 2024 – Mar. 2025
Microsoft Research Asia Beijing, China

Undergraduate Research Intern Jan. 2021 – Jun. 2021
Corelab, Yonsei University Seoul, Korea

Operation Software Developer

Operation Information & Communication Group, ROKAF

Mandatory military service

Jul. 2017 – Jun. 2019

Osan Air Base, Korea

PROJECTS

Development of Index Structure Optimized for Vector DB in CXL-based Storage System

Microsoft

Jun. 2024 – Jun. 2025

Disaggregated Memory Management for Hyperscale Datacenters

Samsung Electronics

Mar. 2022 – Mar. 2023

TEACHING

TA, Introduction to Programming and Computer Systems

Korea Advanced Institute of Science and Technologies (KAIST)

Mar. 2026 – Jun. 2026

Daejeon, Korea

TA, Operating Systems and System Programming

Korea Advanced Institute of Science and Technologies (KAIST)

Sep. 2025 – Dec. 2025

Daejeon, Korea

TA, Programming Structures for Electrical Engineering

Korea Advanced Institute of Science and Technologies (KAIST)

Mar. 2024 – Jun. 2024

Daejeon, Korea

TA, Introduction to Environments and Tools for Modern SW Dev.

Korea Advanced Institute of Science and Technologies (KAIST)

Mar. 2024 – Jun. 2024

Daejeon, Korea

TA, Operating Systems and System Programming

Korea Advanced Institute of Science and Technologies (KAIST)

Sep. 2023 – Dec. 2023

Daejeon, Korea

TA, Unix Kernel Design

Korea Advanced Institute of Science and Technologies (KAIST)

Sep. 2022 – Dec. 2022

Daejeon, Korea

TECHNICAL SKILLS

Languages: C/C++, Python, Java

Development Tools: gcc/g++, gdb, git, gnuplot, vim

System knowledge: Operating System, Distributed System, Consensus Algorithm, Remote Direct Memory Access, Vector Database, Approximate Nearest Neighbor Search