

EDUCATION

- **KAIST** Republic of Korea
Ph.D. in Computer Science *Sep. 2019 – Aug. 2025 (expected)*
 - **Co-advisors:** Sue Moon and Youngjin Kwon.
- **KAIST** Republic of Korea
M.S. in Computer Science *Sep. 2017 – Aug. 2019*
 - **Co-advisors:** Sue Moon and Youngjin Kwon.
 - **Thesis title:** A Memory Management Layer for Disaggregated Data Center.
- **Yonsei University** Republic of Korea
B.S. in Electrical and Electronic Engineering; GPA: 4.01/4.30 *Mar. 2013 – Feb. 2017*
 - **Minor:** Computer Science

EXPERIENCE

- **Advanced Networking Lab, KAIST** Republic of Korea
Teaching Assistant *2017 - 2022, 2024*
 - **Introduction to Computer Networks (CS341).** Taught and developed KENS (KAIST Educational Network System) project assignments. Worked on extending KENS for memory safety, build system, development environment, and teaching ecosystem.
 - **Distributed Algorithms and Systems (CS443).** Taught Raft consensus algorithm project assignments.
 - **Graduate Operating Systems (CS530).** Taught operating system project assignments based on OSv unikernel.
- **Institute of Language and Information Studies, Yonsei University** Republic of Korea
Technical Assistant and Software Developer *2013 - 2017*
 - **Yonsei Corpus Searcher.** Developed efficient a search-filter-sort application for the Yonsei Korean corpus.
 - **Yonsei Dictionary Searcher.** Developed efficient web-based and .net-based search applications for the Yonsei Korean dictionary.
 - **Dictionary searcher for the National Institute of Korean Language.** Developed a dictionary search web application for Korean language.
 - **TOPIK Word Searcher for National Institute for International Education.** Developed an education-level-based dictionary search application used for TOPIK (Test Of Proficiency In Korean).

RESEARCH INTEREST

My broad research interests are:

- **Virtualization:** unikernels, microVM, and containers.
- **Networking:** RDMA, virtio, and programmable NICs.
- **Datacenter:** resource disaggregation, microsecond-scale systems, and tail-optimized systems.

AWARDS AND HONORS

- **SIGCOMM '23 Travel Grants (USD 1500)** ACM SIGCOMM
Awarded for travel to present at the ACM SIGCOMM 2023 conference. *Sep. 2023*
- **Best Paper Award** APNet'23
Awarded for the paper "Host Efficient Networking Stack Utilizing NIC DRAM". *Jun. 2023*
- **Best TA Award** KAIST
Awarded for teaching the class Introduction to Computer Networks (CS341). *Jul. 2021*

- **Awarded High Honors (Top 3%)** Yonsei University
Awarded for outstanding performance in coursework. Aug. 2016 and Feb. 2017
- **The National Scholarship for Science and Engineering** Korea Student Aid Foundation
Awarded for outstanding performance in coursework. Dec. 2015 and Sep. 2016
- **Yonsei Internal Scholarship** Yonsei University
Awarded for outstanding performance in coursework. Sep. 2015 and Mar. 2016
- **Awarded Honors (Top 10%)** Yonsei University
Awarded for outstanding performance in coursework. Feb. 2015, Aug. 2015, and Feb. 2016
- **Korea Telecom Scholarship** Korea Telecom
Awarded for outstanding performance in coursework. Aug. 2015

PUBLICATIONS

- **Wonsup Yoon**, Jisu Ok, Sue Moon, and Youngjin Kwon. Adios to Busy-Waiting for Microsecond-scale Memory Disaggregation. In *Proceedings of the Twentieth European Conference on Computer Systems*. 2025.
- Gangmin Lee, **Wonsup Yoon**, and Sue Moon. Dynamic Dispatcher Assignment With Flat-Combining. In *Proceedings of the Twentieth European Conference on Computer Systems (Poster Session) (EuroSys '25 Posters)*. 2025.
- Jisu Ok, **Wonsup Yoon**, and Sue Moon. Poster: Pushing RDMA into Milliseconds RTT Communication. In *Proceedings of the 20th International Conference on emerging Networking EXperiments and Technologies (Poster Session) (CoNEXT '24 Posters)*. 2024.
- **Wonsup Yoon**, Jisu Ok, Sue Moon, and Youngjin Kwon. Poster: Designing a Memory Disaggregation System for Cloud. In *Proceedings of the ACM SIGCOMM 2023 Conference Posters and Demos (SIGCOMM '23 Posters and Demos)*. 2023.
- Byeongkeon Lee, Donghyeon Lee, Jisu Ok, **Wonsup Yoon**, and Sue Moon. Host Efficient Networking Stack Utilizing NIC DRAM. In *Proceedings of the 7th Asia-Pacific Workshop on Networking (APNet)*. 2023.
- **Wonsup Yoon**, Jisu Ok, Jinyoung Oh, Sue Moon, and Youngjin Kwon. DiLOS: Do Not Trade Compatibility for Performance in Memory Disaggregation. In *Proceedings of the Eighteenth European Conference on Computer Systems (EuroSys)*. 2023.
- **Wonsup Yoon**, Jinyoung Oh, Jisu Ok, Sue Moon, and Youngjin Kwon. DiLOS: adding performance to paging-based memory disaggregation. In *Proceedings of the 12th ACM SIGOPS Asia-Pacific Workshop on Systems (APSys)*. 2021.
- **Wonsup Yoon**, Jinyoung Oh, Sue Moon, and Youngjin Kwon. Accelerating disaggregated data centers using unikernel. In *Proceedings of the ACM SIGCOMM 2020 Conference Posters and Demos (SIGCOMM '20 Posters and Demos)*. 2020.
- Keunhong Lee, Jeehoon Kang, **Wonsup Yoon**, Joongi Kim, and Sue Moon. Enveloping Implicit Assumptions of Intrusive Data Structures within Ownership Type System. In *Proceedings of the 10th Workshop on Programming Languages and Operating Systems (PLOS@SOSP)*. 2019.

INVITED TALKS

- **Adios to Busy-Waiting for Microsecond-scale Memory Disaggregation** KIISE KCC
Invited for the top conference session. 2025
- **Efficient Memory Disaggregation Systems Using Unikernel** KIISE KCC
Invited for the doctoral forum. 2024
- **DiLOS: Do Not Trade Compatibility for Performance in Memory Disaggregation** KIISE KCC
Invited for the top conference session. 2024
- **DiLOS: Do Not Trade Compatibility for Performance in Memory Disaggregation** Samsung GTS
Invited for the Samsung Global Technology Symposium. 2023
- **Designing a Latency-Optimized Scheduler for Memory Disaggregation** EuroDW
Invited for the 17th EuroSys doctoral workshop. 2023

PROFESSIONAL ACTIVITIES

- **EuroSys'22 Shadow PC**

Served as a member of a shadow PC.

EuroSys

2022