

## EDUCATION

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- **KAIST** Republic of Korea  
Ph.D. in Computer Science; GPA: 4.01/4.30  
*Sep. 2019 – present*
  - **Co-advisors:** Sue Moon and Youngjin Kwon.
- **KAIST** Republic of Korea  
M.S. in Computer Science; GPA: 3.95/4.30  
*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

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- **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

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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

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- **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

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- **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

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- **Efficient Memory Disaggregation Systems Using Unikernel** KIISE KCC'24  
Invited for doctoral forum. 2024
- **DiLOS: Do Not Trade Compatibility for Performance in Memory Disaggregation** KIISE KCC'24  
Invited for top conference session. 2024
- **DiLOS: Do Not Trade Compatibility for Performance in Memory Disaggregation** Samsung GTS'23  
Invited for the Samsung Global Technology Symposium. 2023
- **Designing a Latency-Optimized Scheduler for Memory Disaggregation** EuroDW'23  
Invited for the 17th EuroSys doctoral workshop. 2023

## PROFESSIONAL ACTIVITIES

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- **EuroSys'22 Shadow PC** EuroSys  
Served as a member of a shadow PC. 2022