Jonghyeon Kim

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OBJECTIVE

Graduate student. Experienced Linux kernel engineer with a background in low-level database applications and high-level OS memory subsystems. I prefer to find an inefficiency in a modern computing environment and improve it by kernel-level optimization regarding memory management.

Education

Ajou University, PhD in Computer Engineering	Expected Feb 2025
Ajou University, BS in Electrical and Computer Engineering (Double major)	Feb 2019
Ajou University, BS in Chemistry	Feb 2019

Publications

[USENIX ATC'21] Exploring the Design Space of Page Management for Multi-Tiered Memory Systems

Jonghyeon Kim, Wonkyo Choe, Jeongseob Ahn

[CAL'20] A Study of Memory Placement on Hardware-Assisted Tiered Memory Systems

Wonkyo Choe, *Jonghyeon Kim*, Jeongseob Ahn

Experience

Research Intern, Electronics and Telecommunications Research Institute (ETRI)   May 2024 – Aug 2024

- Worked on advanced Linux kernel and memory disaggregation, memory tiering, and serverless computing
- Analyze the performance of serverless framework under memory constraint environment aspect of burst function invocation and unused memory utilization

Undergraduate Intern, CSL, Ajou University   Aug 2018 – Feb 2019

- Worked on Intel Cache Allocation Technology and Redis. Analyze L3 cache effect between user and kernel spaces of Redis dump thread

Skills

Programming: Debugging, Problem Solving, Cod Optimization, Git

Languages: C, Python, Bash

Infrastructure: Redis, Memcached, Docker, OpenWhisk

Technologies: Linux, QEMU, GDB