Kitaek Lee

Database Operating Systems Laboratory
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EDUCATION & BACKGROUND

Hanyang University, DBOS Laboratory　　　　　*Seoul, Republic of Korea*
M.S in Computer Science (GPA: 3.89 / 4.5)　　　　2020 - 2023
Undergraduate Intern　　　　2019 - 2020
Advisor: Prof. Hyungsoo Jung

Hanyang University (Transferred from Sahmyook University)　　*Seoul, Republic of Korea*
B.S in Computer Science (GPA: 3.6 / 4.5)　　　　2018 - 2020

Coursework in Computer Science, Sahmyook University (Transferred to　　*Seoul, Republic of Korea*
Hanyang University)　　　　2012 - 2017

INTERESTS

Database systems, Distributed systems, Transaction processing, Storage engine

TECHNICAL SKILLS

Programming Languages: C, C++, Python
Operating Systems: Linux (System Administration, Kernel Development)
Database Systems: Database Management Systems (Development)
Software Development: System Software, Concurrent programming
Specialized Tools: Linux Kernel Debugging, Performance Optimization

PUBLICATIONS

Deploying Computational Storage for HTAP DBMSs Takes More Than Just Computation Offloading
<u>Kitaek Lee</u>, Jaechan Ahn, Insoon Jo, Hyuk Lee, Hwang Lee, Woong Sul, Hyungsoo Jung
VLDB Endowment Inc. International Conference on Very Large Data Bases (VLDB'23)

Hybrid Transactional/Analytical Processing Amplifies IO in LSM-trees
Jongbin Kim, Jaechan Ahn, <u>Kitaek Lee</u>, Hyungsoo Jung
Institute of Electrical and Electronics Engineers Access (IEEE ACCESS'22)

PROJECTS

Analysis of hidden cost of write amplification in LSM-tree based key-value database
- Oral presentation at Korean DataBase Conference of KISSE (KDBC' 21)
- Preliminary research on LSM-tree compaction to reduce write amplification in RocksDB

Effect of File I/O on a coupled FEM & FVM solver
- Oral presentation at Annual Spring Conference of KIPS (ASK' 21)
- Awarded Grand Prize at the HY-BK Research Festival in Hanyang University

An Implementation of an Optimal Logging Algorithm using MySQL
- Poster presentation at Korea Software Congress of KISSE (KSC'19)

Improving GPU Performance with an Advanced CTA Allocation Policy Considering the Performance Impact

when Changing the Number of Concurrently Executing CTAs

- Poster presentation at Korea Software Congress of KISSE (KSC'19)

Enhancing the Performance of MariaDB Buffer Pool Initialization

- Concurrent Programming (ITE4065)

Enhancing the Performance of a UNIX-style OS with a scheduler, light-weight process, and file system

- Operating System (ITE3021)

TEACHING

Teaching Assistant, Database Systems (Samsung)	Summer 2023 / 2022
Teaching Assistant, Concurrent Programming (ITE4065)	Fall 2022
Teaching Assistant, Database Systems (ITE2038)	Fall 2022 / 2021
Teaching Assistant, Operating System (ITE3021)	Spring 2022 / 2021

REFERENCES

Hyungsoo Jung	Professor
Graduate School of Data Science, Seoul National University	*Seoul, Republic of Korea*
M.S. thesis advisor	hyungsoo.jung@snu.ac.kr