

YEONSU PARK

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SUMMARY

I am an assistant professor in the Department of Computer Science and Engineering at Kangwon National University. Previously, I was a postdoctoral research scientist at POSTECH. I received my Ph.D. in Computer Science and Engineering from POSTECH, where I was fortunate to be advised by Professor Wook-Shin Han. Before that, I obtained my B.S. degree in Software Engineering from Sungkyunkwan University. My research interests include big data processing, query processing, and query optimization.

EDUCATION

Ph.D. in Computer Science and Engineering, POSTECH Feb. 2018 – Feb. 2024

Advisor: Prof. Wook-Shin Han

B.S. in Software Engineering, Sungkyunkwan University Mar. 2011 – Feb. 2017

Graduated with 1st rank in Dept. of Software

GPA: 4.35/4.5 (Major-only GPA: 4.43/4.5)

Took leave of absence for two years (for mandatory military service)

EMPLOYMENT

Assistant Professor, Kangwon National University, Republic of Korea Sep. 2024 – Present

Postdoctoral Research Scientist, POSTECH, Republic of Korea Feb. 2024 – Aug. 2024

Researcher, POSTECH, Republic of Korea Oct. 2017 – Feb. 2018

Software Engineer Intern, NCSoft, Republic of Korea Jan. 2012 – Feb. 2012

RESEARCH INTERESTS

Big Data Processing, Database Query Processing and Optimization, Algorithms

PUBLICATIONS

Dissertation

- [1] Scalable Execution of Massive Number of Small Queries in Spark

Yeonsu Park

Ph.D. Dissertation, POSTECH, 2024

Peer-Reviewed Articles

- [7] Accelerating Sequential Pattern Mining on Spark: A SPADE-Based Approach (to appear)

Yeonsu Park and Seonghyeon Lee

IEICE Transactions on Information and Systems (TIS), 2026

- [6] QaaD (Query-as-a-Data): Scalable Execution of Massive Number of Small Queries in Spark

Yeonsu Park, Byungchul Tak, and Wook-Shin Han

ACM International Conference on Management of Data (**SIGMOD**), 2023 (Top Database Conference)

- [5] A Study on the Construction of a Database for On-Site Safety Accidents in Hazardous Chemical Workplaces

Jaehyun Ha, Sangoh Lee, Taesung Lee, Yeonsu Park, and Wook-Shin Han

KIISE Korean DataBase Conference (KDBC), 2023

- [4] G-CARE: A Framework for Performance Benchmarking of Cardinality Estimation Techniques for Subgraph Matching
Yeonsu Park, Seongyun Ko, Sourav S. Bhowmick, Kyoungmin Kim, Kijae Hong, and Wook-Shin Han
 ACM International Conference on Management of Data (**SIGMOD**), 2020 (Top Database Conference)
- [3] A Survey on Worst-Case Optimal Join Algorithms
Yeonsu Park, Taesung Lee, Seung-Min Lee, Junseung Hwang, and Wook-Shin Han
 KIISE Korea Computer Congress (KCC), 2018
- [2] A Survey of Methods for Dynamic Graph Updates on the State-of-the-Art Graph Processing Systems
 Seung-Min Lee, Jeong-Hwan Kim, Byeonghoon So, Yeonsu Park, and Wook-Shin Han
 KIISE Korea Computer Congress (KCC), 2018
- [1] Performance Evaluation of RocksDB Depending on Sync Option
Yeonsu Park, Gihwan Oh, Jong-baek Lee, Woon-Hak Kang, and Sang-Won Lee
 KIISE Korea Computer Congress (KCC), 2014

Patents

- [2] DISTRIBUTED PROCESSING SYSTEM AND METHOD FOR PROCESSING DATA
 Wook-Shin Han, Yeonsu Park, and Kijae Hong
 Korean Patent Application No. 10-2022-0110236, (Filed: Aug. 2022)
- [1] ELECTRONIC APPARATUS AND DATA PROCESSING METHOD THEREOF, AND SYSTEM FOR DISTRIBUTED PROCESSING
 Young Hwa Lee, Wook-Shin Han, Hyeonji Kim, and Yeonsu Park
 Korean Patent Application No. 10-2021-0172678, (Filed: Dec. 2021)

AWARDS AND HONORS

Google Conference Scholarship	2023
Samsung Humantech Paper Award (Computer Science & Engineering)	2020
- <i>Silver Prize</i>	
Graduation with 1st rank in Dept. of Software, Sungkyunkwan University	2017
ACM International Collegiate Programming Contest (ACM-ICPC) World Finals	2014
- <i>Special Award</i>	
- <i>45th Place</i>	
ACM International Collegiate Programming Contest (ACM-ICPC) Asia Regional (Korea Site)	2013
- <i>4th Place</i>	
ACM International Collegiate Programming Contest (ACM-ICPC) World Finals	2013
- <i>48th Place</i>	
ACM International Collegiate Programming Contest (ACM-ICPC) Asia Regional (Korea Site)	2012
- <i>2nd Place</i>	
Sungkyun Software Scholarship	2011 – 2016
Dean's List, College of Computing, Sungkyunkwan University	2011 – 2016
- <i>Recognized on the Dean's List for seven semesters</i>	
Korea Olympiad in Informatics (KOI)	2009
- <i>Silver Medal</i>	

ACADEMIC TALKS

QaaD (Query-as-a-Data): Scalable Execution of Massive Number of Small Queries in Spark	
• School of Computer Science and Engineering, Kyungpook National University, Online	Jun. 2025
• Graduate School of Data Science, Kangwon National University, Chuncheon, Republic of Korea	Mar. 2025

- ACM SIGMOD 2023, Seattle, WA, USA Jun. 2023

G-CARE: A Framework for Performance Benchmarking of Cardinality Estimation Techniques for Subgraph Matching

- Top Conference Session, Korea Computer Congress 2020 (Virtual) Jul. 2020
- ACM SIGMOD 2020, Portland, OR, USA (Virtual) Jun. 2020
- SAP Labs Korea, Seoul, Republic of Korea Nov. 2019

ACADEMIC SERVICE

Program Committee Member , AAAI Conference on Artificial Intelligence (AAAI)	2026
Member of the Board of Directors , KIISE Data Society of Korea	2025 – Present
Reviewer , SIGMOD Record	2024

TEACHING EXPERIENCE

Database Programming (4471039) , Instructor, Kangwon National University	Spring 2025
Data Structures (4471010) , Instructor, Kangwon National University	Spring 2025
Advanced Data Programming (238048) , Instructor, Kangwon National University	Spring 2025
Database (4471030) , Instructor, Kangwon National University	Fall 2024
Algorithms (4471016) , Instructor, Kangwon National University	Fall 2024
C Programming (1410033) , Instructor, Kangwon National University	Fall 2024
Database System (CSED421) , Teaching Assistant, POSTECH	Spring 2021
Database System (CSED421) , Teaching Assistant, POSTECH	Fall 2020
Advanced Data Programming , Teaching Assistant, Samsung	2020
Database System (CSED421) , Teaching Assistant, POSTECH	Fall 2019

REFERENCES

Wook-Shin Han , Professor, POSTECH	✉ wshan@dblab.postech.ac.kr
Byungchul Tak , Associate Professor, Kyungpook National University	✉ bctak@knu.ac.kr