Juno Kim
Software Engineer

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Fullerton, CA
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GitHub: juno-kim
LinkedIn: junokim8

I'm currently a software engineer at Oracle where I build Oracle's next-generation database products.

EDUCATION

Ph.D. in Computer Science, *University of California, San Diego*   Jun 2023
Advisor: Dr. Steven Swanson
- Dissertation: Advanced Software Techniques for Emerging Memory Technologies

M.S. in Computer Science, *University of California, San Diego*   Jun 2020
Advisor: Dr. Steven Swanson

B.S. in Electrical & Computer Engineering, *Seoul National University, Korea*   Feb 2012
- The period includes 3 years of military service mandatory in Korea.

PUBLICATIONS

Blaze: Fast Graph Processing on Fast SSDs   SC 2022
Juno Kim, Steven Swanson

Ayudante: A Deep Reinforcement Learning Approach to Assist Persistent Memory Programming   ATC 2021
*Hanxian Huang, Zixuan Wang, **Juno Kim**, Steven Swanson, and Jishen Zhao*

Sub-Zero: Zero-copy IO for Persistent Main Memory File Systems   APSys 2020
Juno Kim, Yun Joon Soh, Joseph Izraelevitz, Jishen Zhao, Steven Swanson   *Best Paper*

An Empirical Guide to the Behavior and Use of Scalable Persistent Memory   FAST 2020
*Jian Yang, **Juno Kim**, Morteza Hoseinzadeh, Joseph Izraelevitz, Steven Swanson*

Finding and Fixing Performance Pathologies in Persistent Memory Software Stacks   ASPLOS 2019
Jian Xu, **Juno Kim***, Amirsaman Memaripour, Steven Swanson (*co-first authors)*

Basic Performance Measurements of the Intel Optane DC Persistent Memory Module   arXiv 2019
*J. Izraelevitz, J. Yang, L. Zhang, **J. Kim**, X. Liu, A. Memaripour, Y. Soh, Z. Wang, Y. Xu, S. Dulloor, J. Zhao, S. Swanson*

The FuzzyLog: A Partially Ordered Shared Log   OSDI 2018
*Joshua Lockerman, Jose Faleiro, **Juno Kim**, Soham Sankaran, Daniel Abadi, James Aspnes, Siddhartha Sen, Mahesh Balakrishnan*

WORK EXPERIENCES

Principal Member of Technical Staff   **Jan 2023 — Current**
Oracle, DST group (Manager: Shubha Bose)   *Fullerton, CA (Remote)*
- I am responsible for building and improving data, space, transaction layer of Oracle Database products.

Research Intern   **Jun 2022 — Sep 2022**
Intel Labs, System Software Architecture Lab (Mentor: Sanjay K. Kumar, Andy Anderson)   *San Diego, CA (Remote)*
- Worked on the Linux kernel support for new memory tiering hardware technology

Software Engineering Intern   **Jun 2021 — Sep 2021**
Intel Optane Group (Mentor: Andy Rudoff, Piotr Balcer)   *San Diego, CA (Remote)*
- Worked on prototyping a software library that leverages Intel's Data Streaming Accelerator (DSA) technology for efficient persistent memory access.

Research Intern   **Jun 2019 — Sep 2019**
IBM Research Storage Group (Mentor: Deepavali Bhagwat, Scott Guthridge)   *San Jose, CA*
- Worked on building a testing tool for checking crash-consistency of persistent memory-aware programs.

Software Engineer   **Dec 2011 — Jul 2014**
SAP Labs   *Seoul, Korea*
- Worked on building in-memory database engine with the focus on efficient database metadata access in distributed setting.

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TALKS

Sub-Zero: Zero-copy IO for Persistent Main Memory File Systems	APSys 2020, Virtual
Finding and Fixing Performance Pathologies in Persistent Memory Software Stacks	ASPLOS 2019, Providence, RI

SERVICES

External reviewer at DISC 2020
External reviewer at IEEE MASCOTS 2019

TEACHING EXPERIENCES

Modern Storage Systems (UCSD CSE291A), Fall 2019
Instructor: Dr. Steven Swanson

SKILLS

Technical	C/C++, Python, Go, Shell, SQL
Communication	English, Korean, Japanese