

JIE ZHANG

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Declaration: Dr. Jie Zhang is aware of the IEEE and CS policies and procedures with respect to the Conflict of Interest (COI). Dr. Jie Zhang will follow the COI guideline related to SI/SS.

WORK EXPERIENCE

Peking University, Beijing, China
Department of Computer science

KAIST, Daejeon, Korea
Electrical Engineering (Computing Division)

Assistant Professor, PhD advisor
July 2021 –Current
Postdoctoral Researcher
March 2020 –May 2021

EDUCATION

Yonsei University, Incheon, Korea
PhD in Engineering

University of Texas at Dallas, Richardson, Texas
PhD in Computer Engineering (transfer to Korea)

University of Texas at Dallas, Richardson, Texas
Master of Science in Electrical Engineering

Nanjing University of Posts and Telecommunications, Nanjing, China
BS in Communication Engineering (computer communication)

Advisor: Dr. Myoungsoo Jung
August 2015 – Feb 2020

Advisor: Dr. Myoungsoo Jung
August 2014 – August 2015

Advisor: Dr. Myoungsoo Jung
August 2012 – May 2014

September 2008 – July 2012

SELECTED PUBLICATIONS

MICRO'21 **Ohm-GPU: Integrating New Optical Network and Heterogeneous Memory into GPU**

Top Conference **Multi-Processors**

Jie Zhang, Myoungsoo Jung,

The 54th Annual IEEE/ACM International Symposium on Microarchitecture

ISCA'21 **Revamping Storage Class Memory with Hardware Automated Memory-Over-Storage**

Top Conference **Solution**

Jie Zhang, Miryeong Kwon, Donghyun Gouk, Sungjoon Koh, Nam Sung Kim,

Mahmut Kandemir, Myoungsoo Jung,

The IEEE/ACM International Symposium on Computer Architecture

ISCA'20 **ZnG: Architecting GPU Multi-Processors with New Flash for Scalable Data Analysis**

Top Conference *Jie Zhang, Myoungsoo Jung,*

The IEEE/ACM International Symposium on Computer Architecture

FAST'20 **Scalable Parallel Flash Firmware for Many-core Architectures**

Top Conference *Jie Zhang, Miryeong Kwon, Michael Swift, Myoungsoo Jung,*

The 18th USENIX Conference on File and Storage Technologies

HPCA'20 **DRAM-less: Hardware Acceleration of Data Processing with New Memory**

Top Conference *Jie Zhang, Gyuyoung Park, David Donofrio, John Shalf, Myoungsoo Jung*

26th IEEE International Symposium on High-Performance Computer Architecture

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HPCA'19	FUSE: Fusing STT-MRAM into GPUs to Alleviate Off-Chip Memory Access Overheads
Top Conference	<i>Jie Zhang, Myoungsoo Jung, Mahmut Kandemir, 25th IEEE International Symposium on High-Performance Computer Architecture</i>
DAC'19	FlashGPU: Placing New Flash Next to GPU Cores
Top Conference	<i>Jie Zhang, Miryeong Kwon, Hyojong Kim, Hyesoon Kim, Myoungsoo Jung, The 56th Design Automation Conference (DAC), 2019</i>
OSDI'18	FlashShare: Punching Through Server Storage Stack from Kernel to Firmware for
Top Conference	Ultra-Low Latency SSDs <i>Jie Zhang, Miryeong Kwon, Donghyun Gouk, Changlim Lee, Mohammad Alian, Myoungjun Chun, Mahmut Kandemir, Nam Sung Kim, Jihong Kim, Myoungsoo Jung, 13th USENIX Symposium on Operating Systems Design and Implementation</i>
MICRO'18	Amber: Enabling Precise Full-System Simulation with Detailed Modeling of All SSD
Top Conference	Resources <i>Donghyun Gouk, Miryeong Kwon, Jie Zhang, Sungjoon Koh, Wonil Choi, Nam Sung Kim, Mahmut Kandemir, Myoungsoo Jung, The 51st Annual IEEE/ACM International Symposium on Microarchitecture</i>
Eurosys'18	FlashAbacus: A Self-governing Flash-based Accelerator for Low-power Systems
Top Conference	<i>Jie Zhang, Myoungsoo Jung, The European Conference on Computer Systems (EuroSys), 2018 IEEE International Symposium on Workload Characterization (IISWC), 2017</i>
HPCA'16	DUANG: Fast and Lightweight Page Migration in Asymmetric Memory Systems
Top Conference	<i>Hao Wang, Jie Zhang, Gieseok Park, Sharmila Shridhar, Myoungsoo Jung, Nam Sung Kim, IEEE Symposium on High Performance Computer Architecture (HPCA), 2016</i>
PACT'15	NVMMU: Direct Solid State Disk Access for GPU-Accelerated Data Processing
Top Conference	<i>Jie Zhang, David Donofrio, John Shalf, Myoungsoo Jung, The 24th International Conference on Parallel Architecture and Compilation Techniques</i>

Honors

- 2019: Korea Computer Congress (KCC) -- Best Presentation Paper Award
- 2019: Annual Non-Volatile Memories Workshop (NVMW) -- Nominated as Memorable Paper Award
- 2020-2021: Korean BK21+ Scholarship
- 2021: Our storage-class memory research is selected as *KAIST breakthrough 50 years*
- 2022: Boya Young Scholar