Jangwoong **Kim**

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Education

Sogang University — *Seoul, S.Korea*

M.S. in Computer Science and Engineering — *Mar. 2017 - Feb. 2019*

- Thesis: Single File Write Parallelization of a Non-Volatile Memory Filesystem using Range Locking
- Advisor: **Dr. Sungyong Park** and **Dr. Youngjae Kim**

Sogang University — *Seoul, S.Korea*

B.S. in Computer Science and Engineering — *Mar. 2013 - Feb. 2017*

Skills

- Decent understanding of basic CS concepts (especially in OS, system programming, comptuer architecture)
- Overall understanding of comupter systems (pre-processing, compile, static/dynamic linking, system calls and kernel)
- Many challenging experiences in C/C++ developments
- Ability to adopt right C++ features and STLs in right circurstances based on in-depth understanding of their behaviors
- Hardware-level C skills (assembly inlining, machine code injecting)
- Experiences of low-level Linux libaraies and understanding of their internals (socket, file, shared memory, thread, synchronization, scheduler, IPC, signal)
- Decent C/C++ debugging skills
- Experiences of Linux kernel developments
- Ability to understand and write academic papers fluently, and to independently find my own research topics (especially in file systems, parallel data structures and synchronizations)

Employments

TmaxOS. Co., Ltd. — *Gyeonggi-do, S.Korea*

Researcher — *Feb. 2019 - Present*

- Developed Windows APIs on Linux to run Windows binaries on TmaxOS (which is based on Linux)
- Designed and developed proxy functions to support Windows inter-process COM function calls by generating x86 machine codes in runtime
- Mediated different calling convetions of Windows and Linux by inlining x86 assemblies to guarantee consistency of memory stack

Publications

My research interest is focused on file system in persistent memory.

pNOVA: Optimizing Shared File I/O Operations of NVM File System on Manycore Servers — *Hangzhou, China.*

June-hyung Kim, **Jangwoong Kim**, Hyeongu Kang, hang-Gyu Lee, Sungyong Park, Youngjae Kim — *2019*

10th ACM SIGOPS Asia-Pacific Workshop on Systems (APSys), 2019.

Parallelizing a Single File Write Operation of Non-Volatile Memory File Systems. — *Pyeongchang, S.Korea.*

Jangwoong Kim, June-Hyung Kim, Youngjae Kim, Sungyong Park. — *2018*

Korea Software Congress (KSC), 2018. [Best Paper of Computer System]

Understanding the performance of storage class memory file systems in the NUMA architecture. — *Journal*

Jangwoong Kim, Awais Khan, Youngjae Kim, Sungyong Park. — *2018*

The Journal of Networks, Software Tools and Applications (Cluster Computing), 2018.

ZonFS: A Storage Class Memory File System with Memory Zone Partitioning on Linux. — *Arizona, US.*

Jangwoong Kim, Jae-Hoon Kim, Awais Khan, Youngjae Kim, Sungyong Park. — *2018*

The 5th International Workshop on Autonomic Management of Grid and Cloud Computing (AMGCC), 2017.

Awards

Domestic

2018 **Best Paper of Computer System**, Korea Software Congress (KSC) — *Pyeongchang, S.Korea*

Open Source Softwares

FBBS Futex-based User Level Blocking Synchronization