

Insu Jang

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<https://insujang.github.io>

RESEARCH INTERESTS

System Architecture, Cloud Computing, Distributed Systems, Heterogeneous Computing, Non-Volatile Memory Systems, Serverless Computing

EDUCATION

- **The University of Michigan** Ann Arbor, MI, USA
Ph.D. Student in Computer Science and Engineering Sep 2021 – Present
Advisor: Dr. Mosharaf Chowdhury
- **Korea Advanced Institute of Science and Technology (KAIST)** Daejeon, Republic of Korea
Master of Science in Computer Science (GPA: 3.98 / 4.30) Mar 2016 – Feb 2018
Advisor: Dr. Jaehyuk Huh
- **Sungkyunkwan University (SKKU)** Seoul, Republic of Korea
Bachelor of Science in Computer Engineering (GPA: 4.24 / 4.50) Mar 2011 – Feb 2016

PUBLICATIONS

1. Jongyul Kim, **Insu Jang**, Waleed Reda, Jaeseong Im, Marco Canini, Dejan Kostić, Youngjin Kwon, Simon Peter, and Emmett Witchel. “**LineFS: Efficient SmartNIC Offload of a Distributed File System with Pipeline Parallelism.**” *ACM Symposium on Operating Systems Principles (SOSP)*, October 2021. **Best Paper Award.**
2. **Insu Jang**, Adrian Tang, Taehoon Kim, Simha Sethumadhavan, and Jaehyuk Huh. “**Heterogeneous Isolated Execution for Commodity GPUs.**” *International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS)*, April 2019.

RESEARCH EXPERIENCE

- **Research Assistant**
Computer Architecture and Systems Lab, KAIST (Advisor: Dr. Youngjin Kwon) Jan 2020 – Jul 2020
- **Graduate Research Assistant**
Computer Architecture and Systems Lab, KAIST (Advisor: Dr. Jaehyuk Huh) Mar 2016 – Feb 2018
- **Undergraduate Research Assistant**
Networking Lab, Sungkyunkwan University (Advisor: Dr. Hyunseung Choo) May 2014 – Jul 2015
- **Undergraduate Research Assitant**
M2M Lab, Purdue University (Advisor: Dr. Eric T. Matson) Jul 2014 – Aug 2014

PATENTS

1. **Insu Jang**, Taehoon Kim, and Jaehyuk Huh. “**Heterogeneous Isolated Execution for Commodity GPUs.**” *Republic of Korea Patent No. 10-2105760*. Filed June 19, 2018, Issued December 30, 2019.
2. **Insu Jang**, Songhee Ryu, Gyuhyeon Jeon, Hyun Lee, Myoungbeom Chung, and Hyunseung Choo. “**Data Communication Method using Inaudible Frequency Band.**” *Republic of Korea Patent No. 10-1560798*. Filed February 23, 2015, Issued October 16, 2015.

WORK EXPERIENCE

- **System Software Engineer** Feb 2018 – Jun 2021
TmaxSoft Inc. Seongnam, Republic of Korea
- **Research Intern** Jan 2016 – Feb 2016
Electronics and Telecommunications Research Institute (ETRI) Daejeon, Republic of Korea
- **Research Intern** Jul 2015 – Aug 2015
Advanced Institute of Convergence Technology (AICT) Suwon, Republic of Korea
- **Student Member** Jan 2013 – Apr 2014
Samsung Software Membership (Student Program of Samsung Electronics) Suwon, Republic of Korea

HONORS AND AWARDS

- **Best Paper Award for LineFS: Efficient SmartNIC Offload of a Distributed File System with Pipeline Parallelism** Oct 2021
The 28th ACM Symposium on Operating Systems Principles (SOSP)
- **University Ph.D. Fellowship** Sep 2021
The University of Michigan
- **Korea National Scholarship** Mar 2016
KAIST and Korea Ministry of Science and ICT
- **Korea National Scholarship for Science and Engineering** Mar 2014
Korea Student Aid Foundation and Korea Ministry of Education
- **2nd Prize, 2015 Convergence App Contest** Dec 2015
College of Software, Sungkyunkwan University
- **Dean's List** Oct 2014, Apr 2015
Department of Computer Engineering, Sungkyunkwan University
- **1st Prize, 2013 Smart TV App and Peripherals Contest** Nov 2013
Korea Association of Smart Home and Korea Ministry of Trade, Industry and Energy
- **1st Prize, 2013 Mobile E-learning App Idea Contest** Sep 2013
Korea Ministry of Education

TECHNICAL SKILLS

- **Languages:** C, C++14, Python, Go, Markdown, \LaTeX
- **Frameworks:** CUDA, Intel SGX, Kubernetes, RDMA, Android, Ceph, Linux, QEMU, KVM

REFERENCES

- **Jaehyuk Huh:** Professor, KAIST. jhhuh@kaist.ac.kr
- **Youngjin Kwon:** Assistant Professor, KAIST. yjkwon@kaist.ac.kr
- **Mosharaf Chowdhury:** Morris Wellman Assistant Professor, University of Michigan. mosharaf@umich.edu