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## Education

- **Master of Science in Computer Science** Daejeon, Korea  
*KAIST* Mar 2009 - Aug 2011
  - Master Thesis: Achieving Bandwidth Guarantees in Virtual Data Centers using the Hose Model
  - Examined network traffic data on on-chip network to introduce a new scalable power-efficient structure
- **Bachelor of Science in Computer Science** Daejeon, Korea  
*KAIST* Mar 2004 - Feb 2009
  - Interchange student program, Fudan University, Shanghai, China Sep 2006 - Feb 2007
  - Summer session program, UCSD, San Diego, USA Jul 2006 - Aug 2006

## Work Experience

- **Research Engineer** Australian National University, ACT, Australia  
*ANU College of Engineering and Computer Science* Sep 2016 - Present
  - Visualise knowledge graphs by connecting large collections of images and their descriptions.
  - Filter and cluster the extracted media features to automatically generate multimedia event summary documents.
- **Junior Research Engineer** LG Electronics, Seoul, Korea  
*Creative Innovation Center* Mar 2011 - May 2015
  - Implement IoT devices for control legacy home appliances and new types of wearable devices.
  - Design a new UI/UX platform over Real-time OS and customised Android
  - Build interface protocols between devices and smart phone through Bluetooth and Implement a smart phone application that controls the device.
- **Research Engineer** LG Electronics, Seoul, Korea  
*Creative Innovation Center* Aug 2011 - Feb 2013
  - Build the interface of touch input sensor for edge-bended phone
  - Responsible for developing new gesture dispatch interfaces for Android frameworks and application, as well as writing a device driver and control firmware for the touch input sensors.
- **Research Intern** Microsoft Research Asia, Beijing, China  
*Wireless & Network Group* Aug 2010 - Feb 2011
  - Research on the traffic models and topology for data center networks.
  - Introduce a new traffic model considering traffic locality to provide bandwidth guarantees.
- **Campus Ambassador** Sun Microsystems, INC. Seoul, Korea  
*Sun Campus Ambassador* Sep 2008 - Feb 2009
  - Organise the second university Java algorithm contest.
  - Session translator at Sun Tech Day 2008 Seoul
- **Engineering Intern** Naver Corporation, Seoul, Korea  
*Web-robot Development Team* Mar 2008 - Sep 2008
  - Organise the second university Java algorithm contest.
  - Session translator at Sun Tech Day 2008 Seoul

## Publications

1. D. Chen, D. Kim, L. Xie, M. Shin, A. K. Menon, C. S. Ong, I. Avazpour, and J. Grundy. Pathrec: Visual analysis of travel route recommendations. In *Proceedings of the Eleventh ACM Conference on Recommender Systems, RecSys '17*, pages 364–365, New York, NY, USA, 2017. ACM
2. J. Lee, H. Kim, M. Shin, J. Kim, and J. Huh. Mutually aware prefetcher and on-chip network designs for multi-cores. *IEEE Transactions on Computers*, 63(9):2316–2329, Sept 2014
3. M. Shin and J. Kim. Leveraging torus topology with deadlock recovery for cost-efficient on-chip network. In *2011 IEEE 29th International Conference on Computer Design (ICCD)*, pages 25–30, Oct 2011
4. J. Lee, M. Shin, H. Kim, J. Kim, and J. Huh. Exploiting mutual awareness between prefetchers and on-chip networks in multi-cores. In *2011 International Conference on Parallel Architectures and Compilation Techniques*, pages 177–178, Oct 2011
5. M. Shin, C. Guo, and J. Kim. Achieving bandwidth guarantees in virtual data centers using the hose model. In *The 3rd USENIX Workshop on Hot Topics in Cloud Computing (HotCloud'11), Poster session*, June 2011

## Patents

1. An insole, A digital device and method for controlling the same (co-inventor), KR 10-2015-0102976
2. Mobile terminal and method for controlling the same (co-inventor), KR 10-2015-0093417
3. An insole, A mobile terminal and method for controlling the same (co-inventor), KR 10-2015-0082430
4. Terminal and method for controlling an output of AV data thereof (co-inventor), KR 10-2014-0021118
5. Mobile terminal and method for providing three-dimensional images thereof, KR 10-2014-0021116
6. Wearable glass-type device and method of controlling the device (co-inventor), KR 10-2013-0139293
7. Mobile terminal, KR 10-2013-0011661
8. Routing system and method using torous topology in on-chip network (co-inventor), KR 10-2011-0142500

## Awards

1. Women in Data Science Award, Data to Decisions CRC, Australia, 2017

## Skills

**Programming:** C/C++, Python, JavaScript, Java, XML, SQL, Matlab, Bash, Unix Shell

**Operating Systems:** RTOS, Android, Linux, Mac OS X, UNIX

**Web:** Django, HTML, CSS, Bootstrap

**Software and Tool:** NLTK, Scikit, TensorFlow, Git, Gerrit, Atlassian Tools (Jira, Bitbucket, Confluence), Trace32, Gdb, Keil, IAR, Eclipse, Android Studio

System Frameworks / UX architecture

Android application communicating with other devices

Multithreaded OS structure

Device Driver and Firmware

Good troubleshooting / problem solving skills