

Seikwon Kim

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EXPERIENCE

Samsung Ph.D. Academic Training

Mar 2014 – Present

- Researching in Computer Architecture Lab, KAIST, Korea
 - Research interest: Efficient DRAM architecture; Emerging memory architecture; In-memory compression technique.

Senior Engineer at Samsung Electronics HQ

- Web UI Framework - Caph.js Development

Feb 2013 – Feb 2014

- Developed high performance DTV application framework. The framework is based on the javascript, helping DTV web application programmers to minimize the reflow of the browser; thus improving overall performance of the DTV web application.

Assistant Engineer at Samsung Electronics HQ

- Cloud Phone Development

Jan 2011 – Feb 2013

- Developed 3g telephony feature of cloud phone and application market feature of cloud phone. Cloud phone is based on Chromium OS, using features of cloud server with thin mobile client.

- Machine-to-Machine Convergence Development

Jan 2009 – Jan 2011

- Developed 3g network connectivity and ad-hoc WIFI device communication for convergence scenario between vending machine, ebook, and tablet.
- Awarded Best Embedded Mobile End-to-End Service Category by GSMA at 2010

Engineer at Samsung Electronics HQ

- 7 Inch DTV Remote Control Development

Jan 2008 – Jan 2009

- Developed media player for 7 inch touch based DTV remote control. The remote control could receive a live stream from DTV which had two tuners.

- OIF Standard based IPTV Set Top Box Development

Feb 2007 – Jan 2008

- Developed electronic programming guide (a.k.a EPG) data analysis module.

PUBLICATIONS

CONFERENCES

- [1] Seikwon Kim, Seonyoung Lee, Taehoon Kim, and Jaehyuk Huh, “Transparent Dual Memory Compression Architecture”, in *The International Conference on Parallel Architectures and Compilation Techniques (PACT 2017)*, Sep 2017.
- [2] Seikwon Kim, Shinyeong Hyun, Taekyung Heo, Daegil Im, and Jaehyuk Huh, “Blind: Power saving color transform method for OLED displays”, in *The International Conference on Consumer Electronics (ICCE 2016)*, Jan 2016.
- [3] Jaeman Park, Jongho Lee, Eun Namgung, Seungsoo Lee, Seikwon Kim, Keunseob Kim “A cache management scheme to support offline environment in cloud system”, in *The International Conference on Cloud Computing Technology and Science (CloudCom 2012)*, Dec 2012.

JOURNALS

- [1] Seikwon Kim, Wonsang Kwak, Changdae Kim, and Jaehyuk Huh, “Zebra Refresh: Value Transformation for Zero-Aware DRAM Refresh Reduction”, in *IEEE Computer Architecture Letters (CAL)*, Apr 2018.

US GRANTED PATENTS

- [1] Sei-kwon Kim, Eun Namgung, Man-seok Kang, Keun-seob Kim, Tae-jeoung Kim, “Method of using application, gateway using the method, terminal using the method, and terminal system using the method”, US20130132467, Jun 2017.
- [2] Sei-kwon Kim, Hong-soo Kim, “Method and apparatus for receiving and providing disaster information”, US20120190295, Dec 2014.

EDUCATION

KAIST, Yuseong-gu, Daejeon, Republic of Korea

- Ph.D. Candidate in School of Computing

Mar 2014 – Present

- Adviser: Prof. Jaehyuk Huh
- Focus: Emerging memory architecture; In-memory compression technique.

Columbia University, New York, NY, USA

- M.S. in Computer Science

Sep 2005 – Feb 2007

Hanyang University, Seongdong-gu, Seoul, Republic of Korea

- B.S. in Software
 - Graduated with honors

Mar 2001 – Feb 2005

**AWARDS &
SCHOLARSHIPS**

- SEC annual awards: software development
 - For developing a high performance Tizen CAPH web framework
 - Awarded by Samsung Electronics Co., Ltd. President & CEO
- Research director's award for research & development
 - For developing an award winning product in MWC
 - Awarded by Samsung Electronics Co., Ltd. DMC R&D center research director
- Best embedded mobile end-to-end service category
 - For developing M2M convergence scenarios using 3G network
 - Awarded by GSMA in Mobile World Congress (MWC)
- Dean's List, Hanyang University
- Dean's List, Hanyang University
- Dean's List, Hanyang University

Jan 2014

Apr 2010

Feb 2010

Sep 2004

Mar 2004

Sep 2003

SKILLS

Programming Languages,

- C, C++, Java, Python

Software Frameworks,

- Architecture research frameworks
 - McSimA+, Pin, Booksim, MarssX86
- Mobile development frameworks
 - Tizen, Android

Documentation tools,

- L^AT_EX, Matplotlib

MISC

- Listed in the 2018 Edition of Marquis Who's Who in The World

LANGUAGES

- Korean: Native language
- English: Fluent (speaking, reading, writing)
- Chinese: Intermediate (speaking)

REFERENCES

- **Professor Jaehyuk Huh**, Department of Computer Science, KAIST, jhhuh atsign kaist.ac.kr
- **Professor John R. Kender**, Department of Computer Science, Columbia University, jrk atsign cs.columbia.edu

[CV compiled on 2018-04-24]