Seungyeop Han

Contact Information

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Research Interests

My research interests are primarily in mobile computing and networked systems. It spans topics like computer networking, mobile systems, operating systems, privacy and security. Recently, I have worked on various project in mobile systems: system for continuous high datarate perception [3], natural language interface for third-party mobile applications [1, 4], and studying and providing solutions for smartphone privacy issues [6, 7, 9]). Also I have participated in projects to create new Internet architectures for finer grained identity control in IPv6 [2] and censorship resistant property [8]. Prior to studying in UW, I participated in various research projects, such as GPU-accelerated SSL [11], and online social network analysis [13].

Education

University of Washington, WA

Ph.D. in Computer Science and Engineering (GPA 3.85/4.0) *Sep. 2010 –*
(*Advisors*: David Wetherall, Arvind Krishnamurthy)
M.S. in Computer Science and Engineering *Mar. 2012*

KAIST, Korea

M.S. in Division of Computer Science (GPA 4.15/4.3) *Feb. 2007*
Thesis: Analysis of Blog Spams and Collaborative Blog Spam Filtering Using Adaptive Percolation Search (*Advisor*: Sue B. Moon)

B.S. in Division of Computer Science with a minor in Dept. of Mathematics *Feb. 2005*
Summa Cum Laude, (GPA 3.92/4.3)
Studied Summer 2003 at University of California, Berkeley.

Publications

[1] **Seungyeop Han**, Matthai Phlipose, and Yun-Cheng Ju. NLify: Lightweight spoken natural language interfaces via exhaustive paraphrasing. In *Ubicomp*, 2013. (**Honorable Mention**).

[2] **Seungyeop Han**, Vincent Liu, Qifan Pu, Simon Peter, Thomas Anderson, Arvind Krishnamurthy, and David Wetherall. Expressive privacy control with pseudonyms. In *SIGCOMM*, 2013.

[3] **Seungyeop Han** and Matthai Philipose. The case for onloading continuous high-datarate perception to the phone. In *HotOS*, 2013.

[4] **Seungyeop Han**, Matthai Philipose, and Yun-Cheng Ju. NLify: Mobile spoken natural language interfaces for everyone. In *HotMobile Demo Session*, 2013.

[5] Karthik Mohan, Mike Chung, **Seungyeop Han**, Daniela Witten, Su-In Lee, and Maryam Fazel. Structured learning of gaussian graphical models. In *NIPS*, 2012.

[6] Jaeyeon Jung, **Seungyeop Han**, and David Wetherall. No more blank checks: Enhancing mobile application permissions with runtime feedback and constraints. In *ACM CCS Workshop on Security and Privacy in Smartphones and Mobile Devices (SPSM)*, 2012.

[7] **Seungyeop Han**, Jaeyeon Jung, and David Wetherall. An empirical study of third-party tracking by mobile applications in the wild. In *NSDI Poster Session*, 2012.

[8] Vincent Liu, **Seungyeop Han**, Arvind Krishnamurthy, and Thomas Anderson. Tor instead of IP. In *HotNets*, 2011.

[9] Peter Hornyack, **Seungyeop Han**, Jaeyeon Jung, Stuart Schechter, and David Wetherall. "These aren't the droids you're looking for": Retrofitting android to protect data from imperious applications. In *CCS*, 2011.

[10] David Wetherall, Ben Greenstein, David Choffness, **Seungyeop Han**, Peter Hornyack, Jaeyeon Jung, Stuart Schechter, and Xiao Wang. Privacy revelations for web and mobile apps. In *HotOS*, 2011.

[11] Keon Jang, Sangjin Han, **Seungyeop Han**, Sue Moon, and KyoungSoo Park. SSLShader: Cheap SSL acceleration with commodity processors. In *NSDI*, 2011.

[12] Keon Jang, Sangjin Han, **Seungyeop Han**, Sue Moon, and KyoungSoo Park. Accelerating SSL with GPUs. In *SIGCOMM Poster Session*, 2010. (**Best Poster Award**).

[13] Yong-Yeol Ahn, **Seungyeop Han**, Haewoon Kwak, Sue Moon, and Hawoong Jeong. Analysis of topological characteristics of huge online social networking services. In *WWW*, 2007.

[14] Haewoon Kwak, **Seungyeop Han**, Yong yeol Ahn, Sue Moon, and Hawoong Jeong. Impact of snowball sampling ratios on network characteristics estimation: A case study of Cyworld. In *Korea Information Science Society Fall conference*, 2006.

[15] **Seungyeop Han**, Yong-Yeol Ahn, Sue Moon, and Hawoong Jeong. Collaborative blog spam filtering using adaptive percolation search. In *Workshop on the Weblogging Ecosystem*, 2006.

[16] Hee-Kyoung Jung, Tek-Jin Nam, Ho-Sung Lee, and **Seungyeop Han**. Spray modelling: Augmented reality based 3d modeling interface for intuitive and evolutionary form development. In *ICAT*, 2004.

Patents

Young Su Ko, **Seungyeop Han**, Jung Woo Seo.
System and Method for Collecting Document.
US Patent Application #20110320427, Patent Pending.

Teaching Expereiences

Teaching Assistant, University of Washington *Sep. 2010 – Dec. 2010*
Network Systems (CSEP561)

Teaching Assistant, KAIST *Mar. 2005 – Feb. 2007*
Introduction to Computer Networking (CS441), Special Topics in Computer Science - Wireless and Mobile Computing (CS492), Introduction to Computer Programming (CS101)

Work Experiences

Telefonica I+D, Barcelona, Spain
Research Intern *Apr. 2013 – Jul. 2013*
Worked on application migration between smartphones and computers. I explored the design for migration platform with FirefoxOS phones.

Microsoft Research, Redmond, WA
Contracted Researcher via Nytec Inc. *Oct. 2012 – Mar. 2013*
Research Intern *Jun. 2012 – Sep. 2012*
Worked on NLify project, which enables third party smartphone applications to interact users via spoken natural language. I designed and implemented development supporting

tools well integrated with Visual Studio, and workflow including specifying spoken language usages, amplifying them, and converting into Windows Phone application control.

Forward Ventures LLC., Seoul, Korea
Software Dev Lead *Aug. 2010 – Sep. 2010*
Architected and developed a social commerce website, `http://coupang.com`.

NHN Corp., Korea
Software Engineer, Open UI Tech. Team *Sep. 2009 – Aug. 2010*
Developed an open source web site builder, XpressEngine.

Software Engineer, P2P Platform Development Team *Feb. 2007 – Sep. 2009*
Developed P2P platform libraries. The main component of the libraries was a P2P connector enabling applications to establish reliable connections between peers. In addition, I participated in designing systems and algorithms for optimal peer selection, P2P livecast and VoD service.

Microsoft Research Cambridge, UK
Research Intern *Sep. 2006 – Dec. 2006*
Designed and evaluated spatial sampling algorithms for end-system network monitoring in enterprise network by exploiting existence of heavy-hitters.

Tmax Soft, Korea
Summer Intern Jul. 2004 – Aug. 2004
Developed XML Schema Navigator (in Java), capable of dynamic XML node creation.

Honors and Awards

- Honorable Mention Award [1], Ubicomp, 2013
- Best Poster Award [12], SIGCOMM, 2010
- Doctoral Study Abroad Scholarship, The Korea Foundation for Advanced Studies, Sep. 2010 – Jun. 2014
- Outstanding master's thesis, CS division, KAIST, 2007
- *Summa Cum Laude*, KAIST, 2005
- Honorable Mention in commendation for the outstanding paper [16], ICAT, 2004
- Kim, Younghan Global Leader Scholarship, KAIST, 2002–2004

Services

- Reviewer: MC^{2}R
- 2013: ACM S3 Workshop, PC Member

Other Activities

- Commiter, XpressEngine (`http://xpressengine.org/`), 2007–2010
- Class representative for the class of 2005, Division of Computer Science, 2004

References

Available upon requests.