

Taejoong Chung

Postdoctoral Researcher (t.chung@neu.edu, <https://taejoong.github.io>)

Education

- 09/2009–02/2015 **Ph.D.**, Computer Science and Engineering, Seoul National University, Seoul, Korea.
- Thesis: “*Analytic Approach of Understanding Crowd Phenomena on the Internet: Case Studies of MMORPG and BitTorrent*”
 - Supervisors: Prof. Yanghee Choi and Prof. Ted “Taekyoung” Kwon
- 03/2005–09/2009 **B.S.**, Computer Science and Engineering, POSTECH (Pohang University of Science and Technology), Pohang, Korea.

Professional Experiences

- 09/2015–present **Postdoctoral Researcher**, Northeastern University, Boston, MA, United States.
- 03/2015–02/2016 **Postdoctoral Researcher**, Seoul National University, Seoul, Korea.
- 06/2013–03/2014 **Research Intern**, Cisco Systems, Cambridge, MA, United States.
- 08/2011–02/2015 **Research Assistant**, Seoul National University, Seoul, Korea.
- 09/2010–12/2010 **Teaching Assistant**, Seoul National University, Seoul, Korea.
- Engineering Math II (400.002A, Fall 2010)
- 03/2010–06/2010 **Teaching Assistant**, Seoul National University, Seoul, Korea.
- Engineering Math I (400.001A, Spring 2010)

Honors and Awards

- 2017 Distinguished Paper Award, USENIX Security'17
- 2015 Microsoft Azure Research “Award Program: Microsoft Azure for Research Supports \$20,000”
- 2010 Best Paper Award, Korea Information and Communication Society (KICS)
- 2010 Best Paper Award, IEEE Communication Society Seoul Chapter

Grants

- 2015 Personal Recommendation System and Privacy Protection through Big Data Analysis on Online Social Networks
- (PI) Research Grant of Basic Science Research Program by National Research Foundation of Korea (NRF) funded by the Ministry of Education (2015018668)

Refereed Conference Publications

- CSCW'18 **Privacy Leakage in Event-based Social Networks: A Meetup Case Study**
T. Chung, J. Han, D. Choi, T. Kwon, J. Rha, and H. Kim
CSCW, Jersey City, USA, Nov. 2018
- IMC'17 **Understanding the Role of Registrars in DNSSEC Deployment**
T. Chung, R. van Rijswijk-Deij, D. Choffnes, A. Mislove, C. Wilson, D. Levin, and B. M. Maggs
IMC, London, UK, Nov. 2017

- USENIX Security'17 **A Longitudinal, End-to-End View of the DNSSEC Ecosystem**
T. Chung, R. van Rijswijk-Deij, B. Chandrasekaran, D. Choffnes, D. Levin, B. M. Maggs, A. Mislove, and C. Wilson
USENIX Security, Vancouver, Canada, Aug. 2017
- IMC'16 **Measuring and Applying Invalid SSL Certificates: The Silent Majority**
T. Chung, Y. Liu, D. Choffnes, D. Levin, B. M. Maggs, A. Mislove, and C. Wilson
IMC, Santa Monica, CA, USA, Nov. 2016
- IMC'16 **Tunneling for Transparency: A Large-Scale Analysis of End-to-End Violations in the Internet**
T. Chung, D. Choffnes, and A. Mislove
IMC, Santa Monica, CA, USA, Nov. 2016
- CCS'16 **Measurement and Analysis of Private Key Sharing in the HTTPS Ecosystem**
F. Cangialosi, T. Chung, D. Choffnes, D. Levin, B. M. Maggs, A. Mislove, and C. Wilson
CCS, Vienna, Austria, Oct. 2016
- COSN'15 **Characterizing Conversation Patterns in Reddit: From the Perspectives of Content Properties and User Participation Behaviors**
D. Choi, J. Han, T. Chung, Y. Ahn, B. Chun, and T. Kwon
COSN, Stanford, CA, USA, Nov. 2015
- COSN'15 **Sharing Topics in Pinterest: Understanding Content Creation and Diffusion Behaviors**
J. Han, D. Choi, A. Choi, T. Chung, T. Kwon, J. Rha, and C. Chuah
COSN, Stanford, CA, USA, Nov. 2015
- ANCS'14 **CoRC: Coordinated Routing and Caching for Named Data Networking**
H. Choi, J. Yoo, T. Chung, N. Choi, T. Kwon, and Y. Choi
ANCS, Marina del Rey, CA, USA, Oct. 2014
- WWW'14 **Unveiling Group Characteristics in Online Social Games: A Socio-Economic Analysis**
T. Chung, J. Han, D. Choi, T. Kwon, H. K. Kim and Y. Choi
WWW, Seoul, Korea, Apr. 2014
- IFIP Networking'13 **Spatial and Temporal Locality of Content in BitTorrent: A Measurement Study**
T. Chung, J. Han, H. Lee, J. Kangasharju, T. Kwon, and Y. Choi
IFIP Networking, Brooklyn, NY, USA, May 2013
- SIGMETRICS'12 **Bundling Practice in Bittorrent: What, How, and Why**
J. Han, S. Kim, T. Chung, T. Kwon, H. Kim, and Y. Choi
SIGMETRICS, London, UK, Jun. 2012
- IFIP Networking'12 **Content Publishing and Downloading Practice in BitTorrent**
S. Kim, J. Han, T. Chung, T. Kwon, H. Kim, and Y. Choi
IFIP Networking, Prague, Czech, May 2012
- GLOBECOM'12 **Bandwidth Allocation for BitTorrent under Multi-Torrent Environments**
J. Choi, J. Han, T. Chung, E. Cho, T. Kwon, and Y. Choi
GLOBECOM, Houston, Texas, United States, Dec. 2011

Journal Publications

A First Look at Certification Authority Authorization (CAA)

Quirin Scheitle, T. Chung, Jens Hiller, Oliver Gasser, Johannes Naab, Roland van Rijswijk-Deij, Oliver Hohlfeld, Ralph Holz, Dave Choffnes, Alan Mislove, and Georg Carle
ACM SIGCOMM Computer Communications Review (CCR), Vol. 48, pp. 2, Apr. 2018

An End-to-End View of DNSSEC Ecosystem Management

T. Chung, R. van Rijswijk-Deij, B. Chandrasekaran, D. Choffnes, D. Levin, B. M. Maggs, A. Mislove, and C. Wilson

USENIX Magazine ;login:, Vol. 42, No. 4, Dec. 2017

A Target-centric Surveillance System based on Localization and Social Networking

J. Han, N. Choi, T. Chung, T. Kwon, and Y. Choi

Multimedia Tools and Applications (MTAP), Vol. 73, Issue 1, pp. 241-265, Nov. 2014

Strategic Bundling for Content Availability and Fast Distribution in BitTorrent

J. Han, T. Chung, S. Kim, H. Kim, J. Kangasharju, T. Kwon, and Y. Choi

Computer Communication (COMCOM), Vol. 43, pp. 64-73, May 2014

Bundling Practice in Bittorrent: What, How, and Why

J. Han, S. Kim, T. Chung, T. Kwon, H. Kim, and Y. Choi

ACM SIGMETRICS Performance Evaluation Review, Vol. 40, No. 1, pp. 77-88, Jun. 2012.

How Prevalent is Content Bundling in BitTorrent?

J. Han, T. Chung, S. Kim, T. Kwon, H. Kim, and Y. Choi

ACM SIGMETRICS Performance Evaluation Review, Vol. 39, No. 1, pp. 319-320, Jun. 2011.

Posters

SIGCOMM'17 **The Root Canary: Monitoring and Measuring the DNSSEC Root Key Rollover**

R. van Rijswijk-Deij, T. Chung, D. Choffnes, A. Mislove, and W. Toorop
SIGCOMM, Los Angeles, CA, USA, Aug. 2017

ACNS'14 **Toward Terabyte-scale Caching with SSD in a Named Data Networking Router**

W. So, T. Chung, H. Yuan, D. Oran, and M. Stapp
ANCS, Marina del Rey, CA, USA, Oct. 2014

PAM'13 **Spatial and Temporal Locality of Swarm Dynamics in BitTorrent**

T. Chung, J. Han, H. Lee, J. Kangasharju, T. Kwon, and Y. Choi
PAM, Hong Kong, March. 2013.

Non-Refereed Conference Publications

TPRC'17 **Investigating End-To-End Integrity Violations in Internet Traffic**

A. Mislove, D. Choffnes, and T. Chung
TPRC, Arlington, VA, USA, Sept. 2017

Fellowships

2012–2016 **Samsung Ph.D. Industrial Scholarship.**

2010–2012 **Hyundai (Hajung) Scholarship.**

Summer 2007 **POSTECH Student Exchange Program to UCLA.**

2005–2008 **National Science & Technology Scholarship, KOSAF(Korea Student Aid Foundation).**

Project Experience

06/2015–06/2016 **Personal Recommendation System and Privacy Protection through Big Data Analysis on Online Social Networks**

National Research Foundation of Korea (NRF)

09/2012–06/2013 **Networking Content Delivery Optimization**

SAMSUNG Electronics

- 03/2011–02/2014 **Fundamental Research on In-network Caching and Routing for Named-data Networking**
Korea Communications Agency (KCA)
- 07/2010–12/2012 **Future Internet Service Demonstration: Internet Video Diary**
Korea Internet & Security Agency (KISA), Korea

Service

Program Committee Member.

- '14 Poster Selection Committee of ACM/IEEE Symposium on Architectures for Networking and Communications Systems (ANCS)
- '17 Program Committee of International AAAI Conference on Web and Social Media (ICWSM)
- '17 Program Committee of IEEE International Conference on Ubiquitous Computing and Communications (IUCC)
- '18 Program Committee of International AAAI Conference on Web and Social Media (ICWSM)

Shadow Program Committee Member.

- '17 ACM Internet Measurement Conference (IMC)

Talks

- 11/02/2017 ACM Internet Measurement Conference (IMC)
- 09/29/2017 New England Security Day (NESD)
- 09/08/2017 Research Conference on Communications, Information and Internet Policy (TPRC)
- 08/18/2017 USENIX Security
- 11/16/2016 ACM Internet Measurement Conference (IMC)
- 11/15/2016 ACM Internet Measurement Conference (IMC)
- 10/07/2016 New England Networking and Systems Day (NENS)
- 12/29/2014 Korea Advanced Institute of Science and Technology (KAIST)
- 04/10/2014 World Wide Web Conference (WWW)
- 05/22/2013 IFIP Networking
- 12/07/2011 IEEE GLOBECOM

References

Alan Mislove (amislove@ccs.neu.edu)

Associate Professor of Computer Science, Northeastern University, USA

Bruce M. Maggs (bmm@cs.cmu.edu)

Professor of Computer Science, Duke University and Vice President of Research, Akamai Technologies, USA

Dave Levin (dml@cs.umd.edu)

Assistant Professor of Computer Science, University of Maryland, USA

David Choffnes (choffnes@ccs.neu.edu)

Assistant Professor of Computer Science, Northeastern University, USA

Dave Oran (daveoran@orandom.net)

Former fellow at Cisco Systems, USA

Ted “Taekyoung” Kwon (tkkwon@snu.ac.kr)

Professor, School of Computer Science & Engineering, Seoul National University