

# Taejoong Chung

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Assistant Professor ([tjc@cs.rit.edu](mailto:tjc@cs.rit.edu), <https://taejoong.github.io>)

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## 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.

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## Professional Experiences

- 08/2018–present **Assistant Professor**, B. Thomas Golisano College of Computing and Information Sciences, Rochester Institute of Technology (RIT), Rochester, NY, United States.
- 09/2015–08/2018 **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)

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## 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

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## 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

- NDSS'19 **maTLS: How to Make TLS middlebox-aware?**  
Hyunwoo Lee, Zachary Smith, Junghwan Lim, Gyeongjae Choi, Selin Chun, **T. Chung**, and Ted "Taekyoung" Kwon  
NDSS, San Diego, USA, Feb. 2019
- IMC'18 **Is the Web Ready for OCSP Must Staple?**  
**T. Chung**, Jay Lok, Balakrishnan Chandrasekaran, David Choffnes, Dave Levin, Bruce M. Maggs, Alan Mislove, John Rula, Nick Sullivan, and Christo Wilson  
IMC, Boston, USA, Nov. 2018
- 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

- 11/16/2018 GCCIS PhD Colloquium Series at Rochester Institute of Technology (RIT)  
11/05/2018 ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)  
11/01/2018 ACM Internet Measurement Conference (IMC)  
09/14/2018 Great Lakes Security Day (GLSD)  
06/29/2018 Sonos at Boston  
05/30/2018 Graduate School of Information Security at Korea University  
03/21/2018 Department of Computer Science and Engineering at Washington University in St. Louis (WUSTL)  
02/28/2018 Department of Computer Science at Rochester Institute of Technology (RIT)  
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

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## 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