# 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"
- O Supervisors: Prof. Yanghee Choi and Prof. Ted "Taekyoung" Kwon

03/2005-09/2009

**B.S.**, Computer Science and Enginnering, 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.

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

# ${\sf USENIX\ Security'17}\quad \textbf{A\ Longitudinal,\ End-to-End\ View\ of\ the\ DNSSEC\ Ecosystem}$

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

# ${\tt COSN'15} \quad \textbf{Sharing Topics in Pinterest: Under-standing Content Creation and Diffusion Behaviors}$

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

#### ${\sf IFIP\ Networking'} 12\quad \textbf{Content\ Publishing\ and\ Downloading\ Practice\ in\ BitTorrent}$

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 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)

# 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