

Daejin Choi, Ph.D.

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RESEARCH INTERESTS	Internet (data) science; computational social science; communication; social media analysis; human-centered computing; data journalism; Internet measurement; big data; content distribution; security and privacy; machine learning; deep learning	
EDUCATION	Ph.D. , Feb. 2019, Computer Science and Engineering, Seoul National University. Thesis: “Understanding and Predicting User Behavior and Content Propagation Patterns in Internet: A Data-Scientific Approach” Supervisors: <i>Prof. Ted “Taekyoung” Kwon</i> and <i>Prof. Yanghee Choi</i> B.S. , Aug. 2012, Computer Science and Engineering (Mathematics as minor), Korea University.	
PROFESSIONAL EXPERIENCES	Research Scientist ; Feb. 2019 - present at Georgia Institute of Technology. (PI: <i>Prof. Munmun De Choudhury</i>) Research Assistance ; Aug. 2012 to Feb. 2019 at Seoul National University. (Supervisors: <i>Prof. Ted “Taekyoung” Kwon</i> and <i>Prof. Yanghee Choi</i>) Visiting Researcher ; Aug. 2016 to Dec. 2016 at HEIG-VD, Switzerland. Teaching Assistance ; Fall 2013 at Seoul National University. Software Engineer ; Aug. 2007 - Jan. 2010 at GameVil Inc.	
SELECTED PUBLICATIONS	<ol style="list-style-type: none">1. Taejoong Chung, Jinyoung Han, Daejin Choi, Ted “Taekyoung” Kwon, Jong-Youn Rha, and Hyunchul Kim, “Privacy Leakage in Event-based Social Networks: A Meetup Case Study,” in Proceedings of <i>ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)</i>, Jersey City, USA, Nov. 2018. (acceptance rate = $105/384 = 27.3\%$, This paper is also published in Proceedings of the ACM on Human Computer Interaction (HCI), Vol. 1, Issue 2, Article 35, November 2017).2. Selin Chun, Daejin Choi, Jinyoung Han, Huy Kang Kim, and Taekyoung Kwon, “Unveiling a Socio-Economic System in a Virtual World: A Case Study of an MMORPG,” in Proceedings of <i>The World Wide Web Conference (WWW)</i>, Ryon, France, April 2018.3. Daejin Choi, Jinyoung Han, Selin Chun, Efstratios Rappos, Stephan Robert, and Ted “Taekyoung” Kwon “Bit.ly/practice: Uncovering Content Publishing and Sharing through URL Shortening Services,” accepted in Elsevier Telematics and Informatics. (SSCI IF in 2016 3.398)4. Jinyoung Han, Daejin Choi, Jungseock Joo and Chen-Nee Chuah, “Predicting Popular and Viral Image Cascades in Pinterest,” in Proceedings of <i>The 11th International AAAI Conference on Web and Social Media (ICWSM)</i>, Montreal, Canada, May 2017.(acceptance ratio = $50/357 = 14.0\%$)	

5. **Daejin Choi**, Jinyoung Han, Taejoong Chung, Yong-Yeol Ahn, Byung-Gon Chun, Ted “Taekyoung” Kwon, “Characterizing Conversation Patterns in Reddit: From the Perspectives of Content Properties and User Participation Behaviors,” in Proceedings of *ACM Conference on Online Social Networks (COSN)*, Stanford, CA, USA, Nov. 2015. (acceptance ratio = $22/82 = 26.8\%$).
6. Jinyoung Han, **Daejin Choi**, A-Young Choi, Jiwon Choi, Taejoong Chung, Ted “Taekyoung” Kwon, Jong-Youn Rha, Chen-Nee Chuah, “Sharing Topics in Pinterest: Understanding Content Creation and Diffusion Behaviors,” in Proceedings of *ACM Conference on Online Social Networks (COSN)*, Stanford, CA, USA, Nov. 2015. (acceptance ratio = $22/82 = 26.8\%$).
7. Jinyoung Han, **Daejin Choi**, Byung-Gon Chun, Ted “Taekyoung” Kwon, Hyun-chul Kim, and Yanghee Choi, “Collecting, Organizing, and Sharing Pins in Pinterest: Interest-driven or Social-driven?,” in Proceedings of *ACM SIGMETRICS*, Jun. 2014. (acceptance rate = $40/238 = 16.8\%$).
8. Taejoong Chung, Jinyoung Han, **Daejin Choi**, Ted “Taekyoung” Kwon, Huy Kang Kim, and Yanghee Choi, “Unveiling Group Activities in Online Social Games: A Socio-Economic Analysis,” in Proceedings of *International World Wide Web Conference (WWW)*, Apr. 2014. (acceptance rate = $84/650 = 12.9\%$).

CONFERENCE
PUBLICATIONS

1. Taejoong Chung, Jinyoung Han, **Daejin Choi**, Ted “Taekyoung” Kwon, Jong-Youn Rha, and Hyun-chul Kim, “Privacy Leakage in Event-based Social Networks: A Meetup Case Study,” in Proceedings of *ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*, Jersey City, USA, Nov. 2018. (acceptance rate = $105/384 = 27.3\%$, This paper is also published in Proceedings of the ACM on Human Computer Interaction (HCI), Vol. 1, Issue 2, Article 35, November 2017).
2. Jiwon Kang, **Daejin Choi**, Eunil Park, and Jinyoung Han, “Understanding Influential Comments in Online Conversations,” accepted in *ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*, Jersey City, USA, Nov. 2018. (poster).
3. Selin Chun, **Daejin Choi**, Jinyoung Han, Huy Kang Kim, and Taekyoung Kwon, “Unveiling a Socio-Economic System in a Virtual World: A Case Study of an MMORPG,” in Proceedings of *The World Wide Web Conference (WWW)*, Ryon, France, April 2018.
4. **Daejin Choi**, Jinyoung Han, Selin Chun, Efstratios Rappos, Stephan Robert, and Ted “Taekyoung” Kwon “Bit.ly/practice: Uncovering Content Publishing and Sharing through URL Shortening Services,” *Elsevier Telematics and Informatics*, vol. 35, issue 5, pp. 1310-1323, Aug. 2018. (SSCI in 2016 3.398)
5. Jinyoung Han, **Daejin Choi**, Jungseock Joo and Chen-Nee Chuah, “Predicting Popular and Viral Image Cascades in Pinterest,” in Proceedings of *The 11th International AAAI Conference on Web and Social Media (ICWSM)*, Montreal, Canada, May 2017.(acceptance ratio = $50/357 = 14.0\%$)
6. **Daejin Choi**, Jinyoung Han, Taejoong Chung, Yong-Yeol Ahn, Byung-Gon Chun, Ted “Taekyoung” Kwon, “Characterizing Conversation Patterns in Reddit: From the Perspectives of Content Properties and User Participation Behaviors,” in Proceedings of *ACM Conference on Online Social Networks (COSN)*, Stanford, CA, USA, Nov. 2015. (acceptance ratio = $22/82 = 26.8\%$).

7. Jinyoung Han, **Daejin Choi**, A-Young Choi, Jiwon Choi, Taejoong Chung, Ted “Taekyoung” Kwon, Jong-Youn Rha, Chen-Nee Chuah, “Sharing Topics in Pinterest: Understanding Content Creation and Diffusion Behaviors,” in Proceedings of *ACM Conference on Online Social Networks (COSN)*, Stanford, CA, USA, Nov. 2015. (acceptance ratio = $22/82 = 26.8\%$).
8. Jinyoung Han, **Daejin Choi**, Byung-Gon Chun, Ted “Taekyoung” Kwon, Hyun-chul Kim, and Yanghee Choi, “Collecting, Organizing, and Sharing Pins in Pinterest: Interest-driven or Social-driven?,” in Proceedings of *ACM SIGMETRICS*, Jun. 2014. (acceptance rate = $40/238 = 16.8\%$).
9. Taejoong Chung, Jinyoung Han, **Daejin Choi**, Ted “Taekyoung” Kwon, Huy Kang Kim, and Yanghee Choi, “Unveiling Group Activities in Online Social Games: A Socio-Economic Analysis,” in Proceedings of *International World Wide Web Conference (WWW)*, Apr. 2014. (acceptance rate = $84/650 = 12.9\%$).
10. **Daejin Choi**, Taekyoung “Ted” Kwon, “A Proposal of High-Performance Computing Network Architecture based on Software-Defined Network, Priority-based Flow Control, and RoCE,” in Proceedings of *KICS Conference Winter*, Jeongseon, Korea, Jan. 2018.
11. Selin Chun, **Daejin Choi**, Ted “Taekyoung” Kwon, “A Study on Relations of Goods based on Online Purchase Pattern in Open Market,” in Proceedings of *Joint Conference on Communication and Information (JCCI)*, Sockcho, Korea, Apr. 2016
12. Donghyun Son, **Daejin Choi**, Donghyun Kim, Youngbin Im, Jinyoung Han, Ted “Taekyoung” Kwon, and Yanghee Choi, “A Proposal of the Effective 2hash-based Data Structure for CCN,” in Proceedings of *KICS Conference Summer*, Jeju Island, Korea, Jun. 2013.
13. **Daejin Choi**, Jinyoung Han, Youngbin Im, Ted “Taekyoung” Kwon, and Yanghee Choi “A Study on the Multi-core based Router for Efficient Parallel Packet Processing,” in Proceedings of *KICS Conference Fall*, Seoul, Korea, Nov. 2012

JOURNAL
PUBLICATIONS

1. Ye-eun Won, Jiwon Kang, **Daejin Choi**, Eunil Park, and Jinyoung Han “Who Drives Successful Online Conversations? Unveiling the Role of First User Response,” *Kybernetes*, accepted.
2. Eunil Park, Jiwon Kang, **Daejin Choi**, and Jinyoung Han “Understanding Customers’ Hotel Revisiting Behaviour: A Sentiment Analysis of Online Feedback Reviews,” *Current Issues in Tourism*, accepted.
3. Jinyoung Han, **Daejin Choi**, Taejoong Chung, Chen-Nee Chuah, Hyun-chul Kim, and Ted “Taekyoung” Kwon, “Predicting Content Consumption from Content-to-Content Relationships,” *Elsevier Journal of Network and Computer Applications (JNCA)*, Apr. 2019.
4. **Daejin Choi**, Jinyoung Han, Selin Chun, Efstratios Rappos, Stephan Robert, and Ted “Taekyoung” Kwon “Bit.ly/practice: Uncovering Content Publishing and Sharing through URL Shortening Services,” *Elsevier Telematics and Informatics*, vol. 35, issue 5, pp. 1310-1323, Aug. 2018. (SSCI in 2016 3.398)
5. Donghyun Son, **Daejin Choi**, Nakjung Choi, Junghwan Song, and Ted “Taekyoung” Kwon, “Cache-friendly Adaptive Video Streaming Framework Exploiting Regular Expression in Content Centric Networks”, *Journal of Korea Information and Communication Society*, Vol.40, No.09, Aug. 2015.

6. Jinyoung Han, **Daejin Choi**, Byung-Gon Chun, Ted “Taekyoung” Kwon, Hyun-chul Kim, and Yanghee Choi, “Collecting, Organizing, and Sharing Pins in Pinterest: Interest-driven or Social-driven?,” *ACM SIGMETRICS Performance Evaluation Review*, vol. 42, issue 1, pp. 15-27, Jun. 2014. (Proceeding of ACM SIGMETRICS 2014).

PROJECT
EXPERIENCES

- Predicting Nationwide Rates of Suicide from Online Social Media by *National Science Foundation* (Feb. 2019 - present)
- PF Class Heterogeneous High Performance Computer (HPC) Development sponsored by *National Research Foundation of Korea (NRF)* (Nov. 2016 - Feb. 2019).
- Development of access technology agnostic next-generation networking technology for wired-wireless converged network sponsored by *Institute for Information & Communications Technology Promotion (IITP)* (Jun. 2015 - present).
- Research on Value Creation for Online Consumers: from the Perspectives of Needs, Corresponding Behavior, and Privacy Leakage sponsored by *Big data institute, Seoul National University* (Mar. 2015 - Feb. 2016).
- Design and Implement Streaming Algorithm for Large-size (UHD) Video Contents sponsored by *Small and Medium Business Administration (SMBA), Korea* (Oct. 2014 - Sep. 2016).
- Study of Efficient Structuring and Displaying Contents based on Relationship among Contents by *Small and Medium Business Administration (SMBA), Korea* (Aug. 2014 - Jul. 2015).
- Analyzing Relationship among Contents for Efficient Content Delivery in Content Centric Networking (CCN) by *Small and Medium Business Administration (SMBA), Korea* (Mar. 2014 - Aug. 2014).
- Design and Implementation of Multi-Core Based Content Routers for Reducing Large-Size Video Traffic sponsored by *Small and Medium Business Administration (SMBA), Korea* in cooperation with *Cocolink* (Jul. 2012 - Jun. 2014).

ACADEMIC
SERVICES

- Reviewers - ACM CSCW 2018, IEEE VTC 2014, European Conference on Networks and Communications (EuCNC) 2014

PATENTS

1. Ted “Taekyoung” Kwon, **Daejin Choi**, Selin Chun, Minhyeok Kang, “A Long Short Term Memory-based Recurrent Neural Network Method to Predict per-Service Temporal Traffic Amount in Data Center”
 - Korea patent, Pending no. 10-2019-0014970 (Feb. 8, 2019).
2. Ted “Taekyoung” Kwon, Minkyung Park, Sungmin Sohn, and **Daejin Choi**, “Credit-based Multipath Transmission Method for Datacenter Network Load Balancing, ”
 - Korea patent, Registration no. 10-1932138 (Dec. 18, 2018).
3. Ted “Taekyoung” Kwon, Yanghee Choi, **Daejin Choi**, Youngbin Im, Yoon Kwon, and Junho Suh, “Content Routing Method and Architecture”
 - Korea patent, Pending no. 10-2014-0072835 (Jun. 16, 2014).

PRESENTATIONS &
INVITED TALKS

1. Invited Talk, Hanyang University (ERICA), “Data Science & Machine Learning Tutorial, ” Ansan, Korea, Jan. 2019.
2. Invited Talk, Hanyang University (ERICA), “Computational Social Science with Graph Modeling, ” Ansan, Korea, May. 2018.
3. AAAI Conference on Web and Social Media (ICWSM) 2017, “Predicting Popular and Viral Image Cascades in Pinterest,” Montreal, Canada, May 2017.
4. ACM Conference on Online Social Networks (COSN) 2015, “Characterizing Conversation Patterns in Reddit: From the Perspectives of Content Properties and User Participation Behaviors,” Stanford University, Nov. 2015.

TECHNICAL SKILLS

- Programming languages: C, C++, Python, Java, R
- OS: Windows, Linux, Unix
- Tools: MATLAB, SQL, R, iGraph, Networkx, Google App Engine (GAE), XCode

REFERENCES

- Prof. Ted “Taekyoung” Kwon** (e-mail: tkkwon@snu.ac.kr; phone: +82-2-880-9105)
- Professor, School of Computer Science & Engineering, Seoul National University, Korea
- Prof. Yanghee Choi** (e-mail: yhchoi@snu.ac.kr; phone: +82-2-880-7303)
- Professor, School of Computer Science & Engineering, Seoul National University, Korea
- Prof. Jinyoung Han** (e-mail: jinyoungghan@hanyang.ac.kr; phone: +82-31-400-1052)
- Assistant Professor, College of Computing, Hanyang University, Korea