

Chris Kanich

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University of Illinois at Chicago
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RESEARCH INTERESTS

Economics of Cybercrime, Internet Measurement, Computer Security.

PROFESSIONAL EXPERIENCE

Assistant Professor. University of Illinois at Chicago, 2012 – Present.

Research Assistant. University of California, San Diego, 2005 – 2012
Advisors: Prof. Stefan Savage and Prof. Geoffrey M. Voelker.

Research Internship. International Computer Science Institute, 2008-2009
Advisor: Prof. Vern Paxson.

EDUCATION

Ph.D. Computer Science and Engineering
University of California, San Diego, 2012.
Advisors: Stefan Savage and Geoffrey M. Voelker

B.S. Mathematics and Computer Science
Purdue University, West Lafayette, 2005.

AWARDS AND RESEARCH SUPPORT

UIC College of Engineering Outstanding Research Award 2014

UIC College of Engineering Outstanding Teaching Award 2014

NSF CRI

Title: Enabling Security Analysis at Scale
Duration: July 2014 – June 2017
Amount requested: \$629,474.
Status: **Awarded.**

NSF CAREER Award

Title: Contextual Protection for Private Data Storage and Retrieval
Duration: January 2014 – December 2018
Amount requested: \$596,970.
Status: **Awarded.**

NSF SaTC Medium

Title: A layered approach to securing web services
Duration: May 2014 - May 2017
Amount requested: \$1,199,723.
Status: **Awarded.**

Amazon Web Services AWS in Education grant

Duration: April 2013 - April 2014; August 2014 - August 2015
Amount received: \$18,000 in-kind support.

REFEREED PUBLICATIONS

- Mohammad Taha Khan and Chris Kanich. “High Fidelity, High Risk, High Reward: Using High-Fidelity Networking Data in Ethically Sound Research.” *In Proceedings of the ACM SIGCOMM Workshop on Ethics in Networked Systems* (2015).
- Peter Snyder and Chris Kanich. “No Please, After You: Detecting Fraud in Affiliate Marketing Networks.” *In Workshop on the Economics of Information Security* (2015).
- Mohammad Taha Khan, Xiang Huo, Zhou Li, and Chris Kanich. “Every Second Counts: Quantifying the Negative Externalities of Cybercrime via Typosquatting.” *In Proceedings of the 36th IEEE Symposium on Security and Privacy* (2015).
- Jason W Clark, Peter Snyder, Damon McCoy, and Chris Kanich. “I Saw Images I Didn’t Even Know I Had: Understanding User Perceptions of Cloud Storage Privacy.” *In Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*, pp. 1641–1644 (ACM, 2015).
- Peter Snyder and Chris Kanich. “One Thing Leads to Another: Credential Based Privilege Escalation.” *In Proceedings of the 5th ACM Conference on Data and Application Security and Privacy (Poster Session)*, pp. 135–137 (ACM, 2015).
- Sruti Bhagavatula, Christopher Dunn, Chris Kanich, Minaxi Gupta, and Brian Ziebart. “Leveraging Machine Learning to Improve Unwanted Resource Filtering.” *In Proceedings of the 7th ACM Workshop on Artificial Intelligence and Security* (2014).
- Janos Szurdi, Balazs Kocso, Gabor Cseh, Jonathan Spring, Mark Felegyhazi, and Chris Kanich. “The Long “Taile” of Typosquatting Domain Names.” *In Proceedings of the USENIX Security Symposium* (2014).
- Peter Snyder and Chris Kanich. “Cloudsweeper: Enabling Data-Centric Document Management for Secure Cloud Archives.” *In Proceedings of the ACM Cloud Computing Security Workshop* (2013).
- Andreas Pitsillidis, Chris Kanich, Geoffrey M. Voelker, Kirill Levchenko, and Stefan Savage. “Taster’s Choice: A Comparative Analysis of Spam Feeds.” *In Proceedings of the ACM Internet Measurement Conference (IMC)* (2012).
- Vaibhav Garg, Chris Kanich, and L. Jean Camp. “Analysis of E-Crime in Crowd-sourced Labor Markets: Mechanical Turk vs. Freelancer.” *In Proceedings of the 11th Workshop on the Economics of Information Security (WEIS)* (Berlin, Germany, 2012).
- Chris Kanich. *Characterizing Internet Scams through Underground Infrastructure Infiltration*. Ph.D. thesis, University of California, San Diego (2012).
- Christian Kreibich, Nicholas Weaver, Chris Kanich, Weidong Cui, and Vern Paxson. “GQ: Practical Containment for Measuring Modern Malware Systems.” *In Proceedings of the ACM Internet Measurement Conference (IMC)* (Berlin, Germany, 2011).
- Chris Kanich, Nicholas Weaver, Damon McCoy, Tristan Halvorson, Christian Kreibich, Kirill Levchenko, Vern Paxson, Geoffrey M. Voelker, and Stefan Savage. “Show Me the Money: Characterizing Spam-advertised Revenue.” *In Proceedings of the 20th USENIX Security Symposium* (2011).
- Chris Kanich, Stephen Checkoway, and Keaton Mowery. “Putting out a HIT: Crowdsourcing Malware Installs.” *In Proceedings of the 5th USENIX Workshop on Offensive Technologies* (2011).
- Chris Kanich, Neha Chachra, Damon McCoy, Chris Grier, David Wang, Marti Motoyama, Kirill Levchenko, Stefan Savage, and Geoffrey M. Voelker. “No Plan Survives Contact: Experience with Cybercrime Measurement.” *In Proceedings of the 4th USENIX Workshop on Cyber Security Experimentation and Test* (San Francisco, California, USA, 2011).
- Kirill Levchenko, Andreas Pitsillidis, Neha Chachra, Brandon Enright, Mark Felegyhazi, Chris Grier, Tristan Halvorson, Chris Kanich, Christian Kreibich, He Liu, Damon McCoy, Nicholas Weaver, Vern Paxson, Geoffrey M. Voelker, and Stefan Savage. “Click Trajectories: End-to-End Analysis of the Spam Value Chain.” *In Proceedings of the IEEE Symposium on Security and Privacy* (Oakland, CA, 2011).

- Marti Motoyama, Kirill Levchenko, Chris Kanich, Damon McCoy, Geoffrey M. Voelker, and Stefan Savage. “Re: CAPTCHAs – Understanding CAPTCHA Solving from an Economic Context.” *In Proceedings of the 19th USENIX Security Symposium* (Washington, DC, USA, 2010).
- Andreas Pitsillidis, Kirill Levchenko, Christian Kreibich, Chris Kanich, Geoffrey M. Voelker, Vern Paxson, Nicholas Weaver, and Stefan Savage. “Botnet Judo: Fighting Spam with Itself.” *In Proceedings of NDSS '10* (San Diego, CA, USA, 2010).
- Chris Kanich, Christian Kreibich, Kirill Levchenko, Brandon Enright, Geoffrey M. Voelker, Vern Paxson, and Stefan Savage. “Spamalytics: An Empirical Analysis of Spam Marketing Conversion.” *In ACM Communications of the Association for Computing Machinery*, pp. 99–107 (2009).
- Christian Kreibich, Chris Kanich, Kirill Levchenko, Brandon Enright, Geoffrey M. Voelker, Vern Paxson, and Stefan Savage. “Spamcraft: An Inside Look At Spam Campaign Orchestration.” *In Proceedings of the Second USENIX Workshop on Large-Scale Exploits and Emergent Threats (LEET)* (Boston, MA, USA, 2009).
- Christian Kreibich, Chris Kanich, Kirill Levchenko, Brandon Enright, Geoffrey M. Voelker, Vern Paxson, and Stefan Savage. “On the Spam Campaign Trail.” *In Proceedings of the First USENIX Workshop on Large-Scale Exploits and Emergent Threats (LEET)* (San Francisco, CA, 2008).
- Chris Kanich, Christian Kreibich, Kirill Levchenko, Brandon Enright, Geoffrey M. Voelker, Vern Paxson, and Stefan Savage. “Spamalytics: An Empirical Analysis of Spam Marketing Conversion.” *In Proceedings of the 15th ACM Conference on Computer and Communications Security* (Alexandria, Virginia, USA, 2008).
- Chris Kanich, Kirill Levchenko, Brandon Enright, Geoffrey M. Voelker, and Stefan Savage. “The Heisenbot Uncertainty Problem: Challenges in Separating Bots from Chaff.” *In First USENIX Workshop on Large-Scale Exploits and Emergent Threats (LEET)* (2008).
- Brandon Enright, Geoff Voelker, Stefan Savage, Chris Kanich, and Kirill Levchenko. “Storm: When Researchers Collide.” *In ;login: The USENIX Magazine*, pp. 6–13 (2008).

PROFESSIONAL EXPERIENCE/ACTIVITIES

Program Committee Member World Wide Web Conference	2016
Program Committee Member IEEE Security and Privacy Conference	2016
Invited Talk Greater Chicago Area Systems Research Workshop “I Saw Images I Didn't Even Know I Had:” Understanding User Perceptions of Cloud Storage Privacy	2015
Program Committee Member 18th International Symposium on Research in Attacks, Intrusions, and Defenses	2015
Program Committee Member ACM Conference on Computer and Communications Security	2015
Program Committee Member IEEE Security and Privacy Conference	2015
Organizing Committee Member IEEE Security and Privacy Workshops Donations Chair	2014
Program Committee Member USENIX Security Conference	2014
Program Committee Member 11th Conference on Detection of Intrusions and Malware & Vulnerability Assessment (DIMVA)	2014

Program Committee Co-Chair 7th Workshop on Cyber Security Experimentation and Test	2014
Program Committee Member Network and Distributed System Security Symposium	2014
Program Committee Member Annual Computer Security Applications Conference	2013
Program Committee Member 2013 Workshop on Hot Topics in Cloud Computing	2013
Program Committee Co-Chair 6th Workshop on Cyber Security Experimentation and Test	2013
Invited Talk AT&T Security Research, New York, New York “Online Freelance Labor Abuse and Underground Social Networks”	2012
Program Committee Member 5th Workshop on Cyber Security Experimentation and Test	2012
Invited Talk Center for Applied Cybersecurity Research, Indiana University “CAPTCHA Solving as a Service and Online Freelance Labor Abuse”	2011
Invited Panelist 24th IEEE Annual Computer Communications Workshop Participant on “Interacting with Live Malware” panel.	October 2010
Invited Panelist Fifth Workshop on Secure Network Protocols, Princeton, NJ. Participant on “Ethics in Security Research” panel.	October 2009
Invited Talk Facebook, Palo Alto, CA Invited talk on Spamalytics and the Storm Botnet.	June 2008

TEACHING

Instructor University of Illinois at Chicago Computer Systems.	Spring 2015
Instructor University of Illinois at Chicago Graduate Seminar: Beyond the Dark Side of Data.	Spring 2014
Instructor University of Illinois at Chicago Computer Networks.	Spring 2013, Fall 2013, Fall 2014, Fall 2015
Instructor University of California, San Diego Served as Instructor of Record for CSE123, Computer Networks	Summer 2011