

Peter Snyder

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RESEARCH INTERESTS

Computer Security, Privacy, and Cryptography.

EDUCATION

Ph.D. Computer Science

University of Illinois at Chicago, Chicago, IL
Expected graduation date: Spring 2017

2012 - Present

B.A. Political Science

Lawrence University, Appleton, WI

2002 - 2006

PUBLICATIONS

Jason 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 ACM Conference on Human Factors in Computing Systems (CHI)* (2015). [UPCOMING].

Peter Snyder and Chris Kanich. "One Thing Leads To Another: Credential Based Privilege Escalation." *In ACM Conference on Data and Application Security and Privacy (CODASPY)* (2015). [POSTER].

Peter Snyder and Chris Kanich. "Cloudsweeper: Enabling Data-Centric Document Management for Secure Cloud Archives." *In Greater Chicago Area Systems Research Workshop (GCASR)* (2014). [POSTER].

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).

RESEARCH

CRISP: Abstractions for Security Guarantees in Interactive Web Applications

Web users currently have few guarantees about the security properties of websites they visit, and the frequency and sophistication of attacks on web servers means that a site that is benign one day can become malicious the next, all invisibly to the client. This project seeks to create higher level abstractions for creating HTML and Javascript applications, so that the client has guarantees about the security of the application being run, without the need for manual code inspection.

Cloudsweeper

<http://cloudsweeper.cs.uic.edu>

Developed tool to measure and mitigate the frequency of plaintext password sharing in Gmail archives. The public tool allows users to redact or encrypt-in-place found passwords. The site has had over 2,500 users and has secured over 38,000 messages.

Mining in Mailboxes: Credentials Worms In The Email Domain

Measured the viability of an email credential worm by searching for passwords in a small set of seed email accounts, testing if those passwords give access to new accounts, and then repeating the attack. Simulated this attack using a university's email archives.

RELATED ACTIVITIES

IGERT Fellow Electronic Security and Privacy IGERT Fellow	2013 - 2015
External Reviewer Reivewed 3 papers for IEEE Symposium on Security and Privacy 2015	2014
President UIC Computer Science Graduate Student Association	2013 - 2014
Invited Talk No Secrets: Journalism in the Age of Surveillance Surveillance Defense: Practical Steps for Security and Privacy	2014
Invited Talk University of Illinois at Chicago Security Lunch Presented Dyer, Kevin P., et al. "Protocol misidentification made easy with format-transforming encryption."	2013
Invited Talk University of Illinois at Chicago Security Lunch Presented AlFardan, Nadhem J., and Kenneth G. Paterson. "Lucky Thirteen: Breaking the TLS and DTLS Record Protocols."	2013
Invited Talk University of Illinois at Chicago Advanced Programming Seminar Series Mirthful Mashups: Building Scaleable Web Applications	2013
1st Place Symantec Cyber Challenge Competition, a capture the flag style security competition. Competed in Symantec's national competition.	2013
External Reviewer Reviewed 2 papers for Network and Distributed System Security Symposium (NDSS)	2013
Invited Talk University of Illinois at Chicago Advanced Programming Seminar Series Modern Web Development: From Angle Brackets to WebSockets	2012