

Xinguang(Steve) Sheng

CONTACT INFORMATION

4720 Forbes Ave, CIC 2222
Pittsburgh, PA 15213

Phone: 412 608 7237
Email: steve.sheng@gmail.com
Website: www.chariotsfire.com

PROFESSIONAL OBJECTIVE

A research/policy position to develop and implement policies to improve Internet security.

EDUCATION

Carnegie Mellon University, Pittsburgh, Pennsylvania

Ph.D. Engineering and Public Policy

July 2009

- Dissertation: *Phishing Countermeasures: A Policy Analysis*
- Advisor: Prof. Lorrie Cranor

University of Pennsylvania, Philadelphia, Pennsylvania

M.S. Computer and Information Science (GPA: 3.9)

May 2002

B.S. Computer Science and Engineering, Magna Cum Laude

May 2001

RESEARCH EXPERIENCE

Carnegie Mellon University, Pittsburgh, Pennsylvania

Graduate Researcher

August 2004 – present

Policy Analysis for Phishing Countermeasures

- Analyzed the phishing lifecycle both from an attacker's and defender's perspective.
- Developed a set of recommendations for stakeholders to counter phishing more effectively.
- Interviewed 20 experts from law enforcement, academia, service providers, and registries to validate and prioritize these recommendations.

Anti-phishing Phil Game

- Funded by the National Science Foundation to improve users' trust experience online
- Initiated and led weekly meetings for 2 months with 5 colleagues to design the game.
- Developed the prototype game and supervised a designer to implement it.
- Evaluated the game with a user study of 6000 users, the game improved novice Internet users' ability to detect phishing scams from 29% to 77%.
- **Impact:** The game was named No.9 of the top 25 radical research projects by Network World in 2008, was played over 200,000 rounds since 9/07, and was written in over 30 news articles.

Bringing Municipal Wifi to Pittsburgh

- Developed a strategy to spread broadband wireless Internet access throughout the city.
- Collaborated with 3 colleagues and managed a team of 20 students.
- Designed a wireless network and estimated its operating costs for 6 years, developed a regression model to predict revenues based on city demographics.
- Identified 5 potential business models, and performed a cost benefit analysis and risk analysis for each model.
- Concluded that the wholesale retail model best achieves the city's objective, but financial risk existed, and suggested the city provide financial incentives to the wholesaler.
- Presented the recommendations to the City Council, published a paper at the 35th Telecommunications Research and Policy conference (Washington DC 2007).

Toolkit for Automated Privacy Policy Analysis

- Collaborated with one CMU colleague and 3 researchers from IBM.
- Created a software toolkit to collect and analyze machine readable privacy policies.
- Used the toolkit to survey 300 privacy policies of 50 US financial institutions posted online between 1999 and 2005.
- Written and published the paper in the Journal of Law and Policy for the Information Society.

PROFESSIONAL
EXPERIENCE

University of Pennsylvania

Data Manager, School of Medicine

June 2002 – July 2004

- Developed and managed clinical databases for Alzheimer’s disease research.
- Initiated and led the center’s computing system upgrade effort.
- Participated in writing research grant proposals.

PUBLICATIONS

Xinguang Sheng and Lorrie Faith Cranor. An Evaluation of the Effectiveness of US Financial Privacy Legislation Through the Analysis of Privacy Policies. In *I/S: A Journal of Law and Policy for the Information Society*, Volume 2, Number 3, Fall 2006, pp. 943-979.

S. Sheng, B. Magnien, P. Kumaraguru, A. Acquisti, L. Cranor, J. Hong, and E. Nunge. Anti-Phishing Phil: The Design and Evaluation of a Game That Teaches People Not to Fall for Phish. *2007 Symposium On Usable Privacy and Security*, 18-20 July 2007, Pittsburgh

Lorrie Faith Cranor, Serge Egelman, **Steve Sheng**, Aleecia M. McDonald, and Abdur Chowdhury. P3P Deployment on Websites. In *Electronic Commerce Research and Applications*, forthcoming

P. Kumaraguru, **S. Sheng**, A. Acquisti, L. Cranor, and J. Hong. Getting Users Pay Attention to Anti-Phishing Education: Evaluation of Retention and Transfer. In *Proceedings of 2007 eCrime Research Summit*, 4-5 October 2007, Pittsburgh, PA

J. M. Peha, B. E. Gilden, R. J. Savage, **S. Sheng**, B. L. Yankiver. Finding an Effective Sustainable Model for a Wireless Metropolitan-Area Network: Analyzing the Case of Pittsburgh. In *The 35rd Research Conference on Communication, Information and Internet Policy (TPRC)*, Sep 29 - Sep 30, 2007, The National Center for Technology and Law, George Mason University School of Law.

P. Kumaraguru, **S. Sheng**, A. Acquisti, L. Cranor, and J. Hong. Teaching Johnny not fall for phish. In *Transactions on Internet Technology*, Under Review, 2007

Lorrie Faith Cranor, Aleecia M. McDonald, Serge Egelman, and **Steve Sheng**. 2006 Privacy Policy Trends Report. CyLab Privacy Interest Group, January 31, 2007

CONFERENCES AND
PRESENTATIONS

- Invited Speaker, “Effectiveness of email filtering and web warning for phishing,” 2008 Anti-Phishing working group general meeting, Atlanta GA, October 2008.
- Invited Speaker, “Teaching Johnny not to fall for phish,” 2008 Counter eCrime Operations Summit, Tokyo Japan, May 2008
- Invited Speaker, “Overview of Supporting Trust decisions,” (IIS) Institute of Information Science in Academia Sinica, Taipei Taiwan ROC, Jan 2008
- Oral Presentation, “Anti-phishing phil: A game that teaches people not to fall for phish,” SOUPS 2007 (Symposium for Usable Privacy and Security), Pittsburgh PA, July 2007

SELECTED NEWS
ARTICLES

- “25 Radical Network Research Projects You Should Know About,” NetworkWorld, April 2008 (Anti-phishing Phil was No. 9)
- “CMU Group Discusses City’s Wi-Fi Options,” Pittsburgh Tribune Review, February 2007
- “CMU Develops Scam-Busting Online Game,” CNet News, September 2007
- “Web Tool Detects Something Phishy,” Pittsburgh Tribune Review, December 2007

SKILLS

- Policy analysis (quantitative): cost benefit analysis, risk analysis.
- Policy analysis (qualitative): stakeholder analysis, interview and survey design and analysis
- Modeling: Excel, Decision Tools Suite, Analytica; Statistics: SAS, Stata, Minitab
- Programming skills: C++, Java, C#, Perl; Database: MySQL, Access.
- Foreign Languages: Native fluency in Mandarin and Cantonese

ACTIVITIES

President, Chinese Student and Scholar Association
Representative, CMU Graduate Student Assembly
Intramural Volleyball Team, Co-Captain, 1st place

July 2007 – July 2008
September 2004 – July 2005
2002, 2006