

# Andrew Kalafut

## Contact Information

Lindley Hall 215  
150 S. Woodlawn Ave.  
Bloomington, IN 47405-7104

Email: [akalafut@cs.indiana.edu](mailto:akalafut@cs.indiana.edu)  
Web: <http://www.cs.indiana.edu/~akalafut/>

## Research Interests

My research interests are in computer networking and network security. My current research projects focus on security against attacks on the Web such as malware downloads, scam sites, and phishing. I specifically focus on identification of the characteristics which can be used to distinguish malicious infrastructure from legitimate sites on the Internet.

## Education

Currently	Ph.D. candidate in Computer Science Indiana University, Bloomington, IN
May 2006	M.S. in Computer Science Indiana University, Bloomington, IN
May 2004	B.S. in Computer Science and Mathematics Magna Cum Laude Bradley University, Peoria, IL

## Journals/Magazines

- D. Kevin McGrath, **Andrew Kalafut**, Minaxi Gupta, “Phishing Infrastructure Fluxes All the Way”. IEEE Security and Privacy Magazine Special Issue on Securing the Domain Name System, September/October 2009.

## Conferences/Workshops

- Craig Shue, **Andrew Kalafut**, Minaxi Gupta, “A Unified Approach to Intra-Domain Security”. IEEE International Symposium on Secure Computing (SecureCom), August 2009.
- **Andrew Kalafut** and Minaxi Gupta. “Pollution Resilience for DNS Resolvers”. IEEE International Conference on Communications (ICC), June 2009.
- **Andrew Kalafut**, Jacobus van der Merwe, and Minaxi Gupta. ”Communities of Interest for Internet Traffic Prioritization”. IEEE Global Internet Symposium (GI), April 2009.
- **Andrew Kalafut**, Craig Shue, Minaxi Gupta, “Understanding the Implications of DNS Server Provisioning,” ACM SIGCOMM Internet Measurement Conference (IMC), October 2008.
- Craig Shue, **Andrew Kalafut**, Minaxi Gupta, “Exploitable Redirects on the Web: Identification, Prevalence, and Devense,” Usenix Workshop on Offensive Technologies (WOOT), July 2008.
- Craig Shue, **Andrew Kalafut**, Minaxi Gupta, “The Web is Smaller than it seems,” ACM SIGCOMM Internet Measurement Conference (IMC), October 2007.
- **Andrew Kalafut**, Abhinav Acharya, Minaxi Gupta, “A Study of Malware in Peer-to-Peer Networks,” ACM SIGCOMM Internet Measurement Conference (IMC), October 2006.

- Michael Jipping, **Andrew Kalafut**, Nathan Kooistra, Kathleen Ludewig, “Investigating Wired and Wireless Networks Using a Java-based Programmable Sniffer,” ACM SIGCSE Conference on Innovation and Technology in Computer Science Education (ITiCSE), June 2004.

## Book Chapters

- Minaxi Gupta, Markus Jakobsson, **Andrew Kalafut**, and Sidney Stamm, “Crimeware and Peer-to-Peer Networks,” Book Chapter in *Crimeware: Understanding New Attacks and Defenses*, edited by M. Jakobsson and Z. Ramzan. Publisher: Symantec Press, ISBN:0-321-50195-0. 2008.

## Invited Workshops

- **Andrew Kalafut**, Craig Shue, Minaxi Gupta, “Security Implications of DNS Configuration and Contents,” Midwest Security Workshop, 2008.
- **Andrew Kalafut**, Minaxi Gupta, “Practical Malware Defense in Peer-to-Peer Networks,” Midwest Security Workshop, 2007.

## Milestones

- Thesis Proposal approved, December 2008
- Entered Ph.D. Candidacy, May 2007
- Passed departmental oral qualifying exam, April 2007
- Passed both departmental written qualifying examinations, August 2005

## Service

- Program committee member: International Conference on Internet Monitoring and Protection, 2008,2009,2010
- Program committee member, First International Workshop on System Diagnosis (SYDIA), 2007
- President, Iota Nu Phi honor society Alpha chapter, 2006 - 2007.
- Reviewer: IEEE INFOCOM 2009,2008; ACM Conference on Computer and Communication Security (CCS) 2009; International Conference on Computer Communications and Networks (ICCCN) 2009; Workshop on Secure Network Protocols (NPsec) 2009; IEEE Workshop on Local and Metropolitan Area Networks (LANMAN) 2008, APWG eCrime Researchers Summit (eCRS) 2008, SKLOIS Conference on Information Security and Cryptography (Inscrypt) 2006.
- Computer Science Department representative to IU Graduate and Professional Student Organization, 2008/2009.

## Work Experience

- 1/2009 - Present **Research Assistant** Indiana University Bloomington, IN  
Research under the direction of Professor Minaxi Gupta
- 8/2008 - 12/2008 **Course Instructor** Indiana University Bloomington, IN  
*Adventures in Computing: C, Unix, and C++*  
Taught two eight week courses, one on C and Unix, the other on C++
- 8/2004 - 5/2008 **Associate Instructor** Indiana University Bloomington, IN  
*Mastering the World Wide Web*  
Taught lab section and some lectures  
*Introduction to Computer Networks*  
Assisted with design of projects. Assisted with grading.  
*Advanced Operating Systems*  
Led discussion section. Graded all projects. Assisted with grading of exams.  
*Introduction to Software Systems*  
Taught Java programming and Object-Oriented concepts in one lab section.  
Assisted with Grading.  
*Introduction to Computers and Computing*  
Taught HTML and Microsoft Access, Excel, PowerPoint, and Word.  
Assisted with development of course materials.
- 5/2007 - 8/2007 **Research Intern** AT&T Labs Research Florham Park, NJ  
Networking research under the direction of Balachander Krishnamurthy and Kobus van der Merwe
- 5/2006 - 8/2006 **Research Assistant** Indiana University Bloomington, IN  
Conducted research on an Internet reputation system under the direction of Professor Minaxi Gupta.
- 5/2003 - 8/2003 **Undergraduate Researcher** Hope College Holland, MI  
Networking research under the direction of Professor Michael Jipping as part of the Hope College NSF REU program.