

Chris Karlof

EDUCATION **University of California at Berkeley**, Berkeley, CA.
Ph.D. in Computer Science, expected graduation: late 2007 – early 2008.
Research focus: Computer security.
Advisors: David Wagner and Doug Tygar

North Carolina State University, Raleigh, NC.
B.S. in Mathematics, May 1995. Valedictorian.

Awards and Scholarships

- NFS Fellowship Honorable Mention 2002
- Valedictorian (GPA 4.0), class of 1995, NC State University
- Goldwater Scholarship 1995
- Phi Beta Kappa 1995
- Mary Alice and Hubert V. Park Endowed Scholarship 1993-1995

RESEARCH INTERESTS Computer security. Usable security. Web security and privacy. Electronic voting.

PUBLICATIONS **Doppelganger: Better Browser Privacy Without the Bother**
Umesh Shankar and Chris Karlof. Proceedings of the Thirteenth ACM Conference on Computer and Communications Security (CCS 2006), pages 154-167, November 2006.

A Practical Evaluation of Radio Signal Strength for Ranging-based Localization
Kamin Whitehouse, Chris Karlof, and David Culler. ACM Mobile Computing and Communications Review (MC2R), Special Issue on Localization Technologies and Algorithms. 2006.

Security Analysis of the Diebold AccuBasic Interpreter
David Wagner, David Jefferson, Matt Bishop, Chris Karlof, and Naveen Sastry. Report of the California Secretary of State's Voting Systems Technology Assessment Advisory Board (VSTAAB). February 14, 2006.

Cryptographic Voting Protocols: A Systems Perspective
Chris Karlof, Naveen Sastry, and David Wagner. Proceedings of the Fourteenth USENIX Security Symposium (USENIX Security 2005), pages 33-50, August 2005.

The Effects of Ranging Noise on Multihop Localization: An Empirical Study
Kamin Whitehouse, Chris Karlof, Alec Woo, Fred Jiang, and David Culler. Proceedings of the Fourth International Conference on Information Processing in Sensor Networks (IPSN 2005), pages 73-80, April 2005.

Design and Implementation of a Sensor Network System for Vehicle Tracking and Autonomous Interception
Cory Sharp, Shawn Schaffert, Alec Woo, Naveen Sastry, Chris Karlof, Shankar Sastry, and David Culler. Proceedings of the Second European Workshop on Wireless Sensor Networks (EWSN 2005), pages 93-107, January 2005.

TinySec: A Link Layer Security Architecture for Wireless Sensor Networks

Chris Karlof, Naveen Sastry, and David Wagner. Proceedings of the Second ACM Conference on Embedded Networked Sensor Systems (SenSys 2004), pages 162-175, November 2004.

Distillation Codes and Applications to DoS Resistant Multicast Authentication

Chris Karlof, Naveen Sastry, Yaping Li, Adrian Perrig, and J.D. Tygar. Proceedings of the Eleventh Annual Network and Distributed Systems Security Symposium (NDSS 2004), pages 37-56, February 2004.

Hidden Markov Model Cryptanalysis

Chris Karlof and David Wagner. Proceedings of the Fifth Workshop on Cryptographic Hardware and Embedded Systems (CHES 2003), LNCS 2779, pages 17-34, September 2003.

Secure Routing in Wireless Sensor Networks: Attacks and Countermeasures

Chris Karlof and David Wagner. Elsevier's AdHoc Networks Journal, Special Issue on Sensor Network Applications and Protocols, Volume 1, Issues 2-3, pages 293-315, September 2003.

ARRIVE: Algorithm for Robust Routing in Volatile Environments

Chris Karlof, Yaping Li, Joe Polastre. Technical Report UCB/CSD-03-1233, University of California at Berkeley, May 2002.

Estimation Problems Associated with the Three Parameter Gamma Distribution

K.O. Bowman, L.R. Shenton, Chris Karlof. Comm. Statist. Theory Methods 24 (1995), no. 5, pages 1355-1376.

**WORK
EXPERIENCE**

Graduate Student Researcher, University of California at Berkeley (Spring 2002-present)

Research in computer security, with a focus on network and distributed system security.

Advisors: Doug Tygar and David Wagner.

Teaching Assistant, University of California at Berkeley, (Fall 2001-Spring 2002)

CS61A - The structure and interpretation of computer programs

Lighting Designer/Electrician, New York City, (1995-2001)

Motion pictures, television, and commercials.

CONSULTING

California Secretary of State, Jan. 2006 - Feb. 2006, evaluated the security of the Diebold AccuBasic Interpreter in Diebold's electronic voting machines.

Resonate, Jan. 2004 - Feb. 2005, technical consultant for Resonate v. Alteon patent litigation.