

John R. Goodall

Research Scientist
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Education

Ph.D.	2006	University of Maryland, Baltimore County: Information Systems
M.S.	2003	University of Maryland, Baltimore County: Information Systems
B.A.	1998	Binghamton University: History

Research Interests

Visualization for cyber security, information visualization, collaborative visualization, human-computer interaction, computer network defense, intrusion detection, computer-supported cooperative work, communities of practice, qualitative & ethnographic research methods.

Refereed Journal Publications

D'Amico, Anita D., John R. Goodall, Daniel R. Tesone, and Jason K. Kopylec. "Visual Discovery in Computer Network Defense." *IEEE Computer Graphics and Applications* 27(5), IEEE Press, 2007, 20-27.

Goodall, John R., Wayne G. Lutters, Penny Rheingans, and Anita Komlodi. "Focusing on Context in Network Traffic Analysis." *IEEE Computer Graphics and Applications* 26(2), IEEE Press, 2006, 72-80.

Refereed Conference Publications

Tesone, Daniel T. and John R. Goodall. "Balancing Interactive Data Management of Massive Data with Situational Awareness through Smart Aggregation." *Proceedings of the IEEE Symposium on Visual Analytics Science and Technology (VAST)*, IEEE Press, 2007, 67-74.

Goodall, John R., Wayne G. Lutters, Penny Rheingans, and Anita Komlodi. "Preserving the Big Picture: Visual Network Traffic Analysis with TNV." *Proceedings of the Workshop on Visualization for Computer Security (VizSec)*, IEEE Press, 2005, 47-54.

Komlodi, Anita, Penny Rheingans, Utkarsha Ayachit, John R. Goodall, and Amit Joshi. "A User-Centered Look at Glyph-Based Security Visualization." *Proceedings of the Workshop on Visualization for Computer Security (VizSec)*, IEEE Press, 2005, 21-28.

Goodall, John R. "User Requirements and Design of a Visualization for Intrusion Detection Analysis." *Proceedings of the IEEE SMC Information Assurance Workshop (IAW)*, IEEE Press, 2005, 394-401.

Goodall, John R., A. Ant Ozok, Wayne G. Lutters, Penny Rheingans, and Anita Komlodi. "A User-Centered Approach to Visualizing Network Traffic for Intrusion Detection." *Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI)*, ACM Press, 2005, 1403-1406.

Goodall, John R., Wayne G. Lutters, and Anita Komlodi. "I Know My Network: Collaboration and Expertise in Intrusion Detection" *Proceedings of the ACM Conference on Computer-Supported Cooperative Work (CSCW)*, ACM Press, 2004, 342-345.

Goodall, John R., Wayne G. Lutters, and Anita Komlodi. "The Work of Intrusion Detection: Rethinking the Role of Security Analysts." *Proceedings of the Americas Conference on Information Systems (AMCIS)*, AIS Press, 2004, 1421-1427.

Komlodi, Anita, John R. Goodall, and Wayne G. Lutters. "An Information Visualization Framework for Intrusion Detection." *Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI)*, ACM Press, 2004, 1743-1746.

Book Chapters

Kopylec, Jason K., Anita D. D'Amico, and John R. Goodall. "Visualizing Cascading Failures in Critical Cyber Infrastructure." In Eric Goetz and Sujeet Shenoj (eds.), *Critical Infrastructure Protection*, Springer, Boston, 2007, 351-366.

Other Publications and Presentations

Goodall, John R. "Visualizing Network Traffic for Intrusion Detection," Doctoral Symposium, *Proceedings of the ACM Conference on Designing Interactive Systems (DIS)*, ACM Press, 2006, 363-364.

Goodall, John R., Anita Komlodi, Wayne G. Lutters, and Ant Ozok. "Information Visualization for Intrusion Detection," *Human Factors and Ergonomics Society (HFES-Potomac Chapter) Open House*, Baltimore, MD, November, 2004.

Goodall, John R., Anita Komlodi, and Wayne G. Lutters. "Information Visualization for Intrusion Detection Analysis: A Needs Assessment of Systems and Network Security Experts." *Workshop on Statistical and Machine Learning Techniques in Computer Intrusion Detection*, Fairfax, VA, 2003.

Komlodi, Anita, Penny Rheingans, John Pinkston, Andrew Sears, Jeff Undercoffer, John R. Goodall, and Enrique Stanziola. "Item-based Visualization for Intrusion Detection." *Workshop on Statistical and Machine Learning Techniques in Computer Intrusion Detection*, Fairfax, VA, 2003.

Goodall, John R. "RedHat 6.2 AFS/Kerberos Installation Guide." *SANS GIAC UNIX Security Administrator paper*, 2001.
http://www.giac.org/certified_professionals/practicals/gcux/0106.php

Dissertation

Goodall, John R. "Defending the Network: Visualizing Network Packets for Intrusion Detection Analysis," *Ph.D. Dissertation*, University of Maryland, Baltimore County (UMBC), 2006.

Professional Experience

- 2006-present Secure Decisions division of Applied Visions Inc., Northport NY
Research Scientist
- 2001-2006 University of Maryland, Baltimore County (UMBC), Baltimore MD
Unix Systems Administrator
- 1998-2001 TVData Technologies, Glens Falls NY
Unix Systems Administrator

Teaching Experience

- 2004-2006 University of Maryland, Baltimore County (UMBC), Baltimore MD
Department of Information Systems
Part-time Instructor (IS.403: User interface design)

Academic Activities

- 2008 Program Chair, *VizSEC: Workshop on Visualization for Computer Security (in conjunction with 11th International Symposium on Recent Advances in Intrusion Detection [RAID])*
- 2007 Program Chair, *VizSEC: Workshop on Visualization for Computer Security (in conjunction with IEEE Vis & InfoVis)*
- 2006 Technical Reviewer, *Security Data Visualization: Graphical Techniques for Network Analysis*, by Greg Conti. No Starch Press, 2007. (ISBN 1-59327-143-3)
- 2005 Reviewer, *IEEE Trans. on Visualization & Computer Graphics*, special issue
- 2005 Reviewer, *IEEE Computer Graphics and Applications*, special issue
- 2005 Company liaison and student supervisor for industry penetration testing grant
- 2005-06 Reviewer, *ACM Conf. on Human Factors in Computing Systems (CHI)*
- 2005 Program Committee, *VizSEC: Workshop on Visualization for Computer Security (in conjunction with IEEE Vis & InfoVis)*
- 2005 Reviewer, *ACM International Conf. on Supporting Group Work (GROUP)*
- 2005 Reviewer, *IEEE Information Assurance Workshop*
- 2005 Volunteer Staff, *ACM Conf. on Human Factors in Computing Systems (CHI)*
- 2004 Program Committee & Session Chair, *VizSEC: Workshop on Visualization and Data Mining for Computer Security (in conjunction with ACM CCS)*
- 2004 Volunteer Staff, *ACM Conf. on Computer-Supported Cooperative Work (CSCW)*
- 2003-04, 06 Student Supervisor, *NSF Research for Undergraduates Experience (REU)*

Honors And Awards

- 1994-1998 Morris Gitlitz Memorial Academic Scholar, Binghamton University

Software Development

TNV Computer network traffic visualization tool <http://tnv.sourceforge.net/>
Released under the MIT License.