Samuel Liles
College of Technology
Purdue University
401 North Grant Street
West Lafayette, IN 47906

Phone (765) 496-2274
sam@selil.com
www.selil.com

Education – *Completed a doctorate in technology and masters and bachelors degrees in computer science*

Purdue University: West Lafayette, Indiana April 2005 to May 2012, PhD College of Technology (Digital Forensics), Dissertation Title: "*Cyber warfare as a form of conflict: Evaluation of models of cyber conflict as a prototype to conceptual analysis*", Advisor: Marcus Rogers

Colorado Technical University: Colorado Springs, Colorado July 1998 to February 1999, MSCS Software Systems Engineering

Huron University: Huron, South Dakota December 1997 to August 1998, BS Computer Science

Certifications

- Current DoD clearance
- Certified Information Systems Security Professional (CISSP), *April 2010*
- Sun Microsystems Workgroup and Enterprise GSP Certification*, August 2003*
- Colorado Technical University Certification in C++, *March 1999*

Experience – *Over 20 Years of increasing professional responsibility and experience serving and consulting as a trusted adviser to major corporate and government leadership in information security topics, over 10 years in research and higher education.*

Purdue University: Associate Professor August 2012 to Present

Activity: Serve as a tenured associate professor in the area of digital forensics and information security, focusing on live system and network based cyberforensics and cyberforensic tool development including curriculum and facilities development. Mentor and guide graduate student research and laboratory environment. Participate in both undergraduate and graduate education assignments.

Technology: Blackboard, Moodle, Forensic Took Kit, Encase, Blacklight, Autopsy, Sleuthkit, Pro Discover, Apple OSX, Apple iOS, Microsoft Windows (XP, 7, 8), Linux Red Hat, BackTrak 5.X, IdaPro

National Defense University: Associate Professor March 2011 to July 2012

Activity: Serve as a recognized expert and professor of systems management, and contribute expertise in information operations, computer network operations, computer network defense, information assurance, cybersecurity, cyberterrorism, and cyberwar. Experience encompasses the systems/network security technical and management disciplines required to ensure the security of information systems used in the federal government; including cryptography, access control, threat analysis and vulnerability assessment.

Technology: Host Based Security System, Industrial Control Systems, RedEye, Apple OSX, Apple iOS, Linux Red Hat, BackTrak 5.X

Purdue University Calumet: Associate Professor August 2003 to March 2011

Promoted from Assistant to Associate August 2008.

Activity: Held primary responsibility for the creation and delivery of information technology and security curriculum that is taught at a distance and in the classroom. Served as the lead instructor on all networking, operating system, and security courses within the department. Maintained and fostered the growth and experience of a cadre of masters degree seeking graduate students.

Technology: Blackboard, WebCT, Vista, Cisco IOS, Pix Firewalls, Cisco Routers, Cisco Switches, HP Switches, Enterasys Switches, Cisco Wireless Access Points, Microsoft Enterprise Servers (2000, 2003, etc,), Microsoft Clients (2000, XP, Vista), ProDiscover,

Samuel Liles Phone (765) 496-2274
College of Technology sam@selil.com
Purdue University www.selil.com Page 2 of 6
401 North Grant Street
West Lafayette, IN 47906

Forensic Tool Kit, Java, C++, Netbeans, Visual Studio, Source Safe, Subversion, Apple OSX, Apple iOS, Linux, BackTrak 4.x to 5.x

NCR Corporation: Senior Consultant 1 – August 2000 to August 2003

Activity: Led efforts towards extensive system integration tasks on various information technology projects. Provided consulting and knowledge of SNMP traffic, firewalls, security, help desk, systems, and project management as required to customer executives and technical experts. Provided leadership and responsibility for entire architectural review prior to implementation on customer project sites. Supported any engineering activities for project enhancements internationally. Developed and wrote white papers setting project scope and methods for internal and external executives.

Technology: SNMP, RMON, Cisco IOS, Microsoft (NT, 2000, 2003, XP, etc.), Visual Studio, Source Safe, Solaris (5, 6, 7), Oracle, MySql, PostGres, Java, Netbeans, Linux

Access Data Consulting Corporation: Senior Technical Consultant - April 2000 to August 2000

Activity: Provided leadership and served as senior technical consultant providing assistance to other members of the team. Worked closely with the architectural design requirements of a web enhanced application suite. Was responsible for providing documentation and briefing materials for customer executive management. Served a customer base composed of leading e-commerce companies. Developed and implemented help desk processes and procedures for insuring customer satisfaction.

Technology: Microsoft Windows (98, NT, 2000), HTML, JavaScript, Java, C++, Word, Excel, RMON, Source Safe, BugTrak, Oracle, MSSQL

Litton/TASC (Now just TASC): Senior Member Technical Staff – September 1999 to April 2000.

Activity: Managed the release of software, network enhancements, and Source-Safe code library within Department of Defense requirements. Assisted with response to technical queries, consultations with customer, and engineered technical solutions. Provided domain expertise and leadership in developing network solutions, and software engineering of project management software within the Department of Defense context. Procured, maintained, and solved issues dealing with network operating systems and hardware within the Department of Defense customer environment. Led analysis of and suggested response to customer training and solution needs at the customer site. Led and managed timelines, budgets, and project activities of vendors for the Department of Defense customer. Provided leadership and held responsibility for briefing general officers, military staff, and executive civilian staff on various assigned topics.

Technology: Dell server appliances, Microsoft Windows (98, NT, 2000), HTML, JavaScript, ToolBox, C++, Java, ADA, Oracle, MSSQL

MCIWorldcom *(Contracted Services):* Senior Program Manager – February 1999 to September 1999.

Activity: Provided leadership and subject matter expertise for systems analysis on the Y2K project. Provided technical leadership and oversight for executive management. Held primary responsibility for briefing customer executive management on technical solution strategies. Managed the development of migration paths for the known universe of network equipment. Managed a budget of over $60 million and coordinated expense documentation with the financial executive manager. Provided subject matter expertise to management on embedded network systems. Developed requirements analysis documentation for project management software. Briefed senior executive leadership on project milestone successes and issues.

Technology: Microsoft Windows (98, NT, 2000), PERL, C++, Java, ADA, Oracle, MSSQL

Basec.Net: Network Engineer - December 1997 to June 1998

Activity: Managed, implemented, and configured Internet hardware across the

Samuel Liles
College of Technology
Purdue University
401 North Grant Street
West Lafayette, IN 47906

Phone (765) 496-2274
sam@selil.com
www.selil.com

Page 3 of 6

corporate enterprise. Led and developed innovative solutions for federation of customer enterprise networks. Developed and managed corporate billing and helpdesk database. Led team of technical assistance personnel who provided Tier 2 and Tier 3 help desk support. Responsible for briefing management of customer companies on product enhancements and enterprise solutions. Developed and maintained applications and performed webmaster functions developing web pages. Managed and implemented enterprise wide infrastructure enhancements.

Technology: Cisco IOS, Cisco Routers, Cisco Switches, Cisco Bridges, Livingston Portmasters, BSD Unix, Microsoft NT, Windows 95, JavaScript, HTML, C, C++

Law Enforcement and Military Experience – *Seven years experience in law enforcement with various duties and titles, three years military experience transferring from Washington State National Guard to the United States Marine Corps*

Pierce County Sheriff Department: Corrections Officer -August 1989 – December 1993

Special duties performed included court room services to the judges, and legal staff. I managed several special projects where policies were written on staffing, shift rotation, budget synopses, upgrades of phone and data networks, and implementation of computer systems.

Kitsap County Sheriff Department Corrections Officer - October 1987 - August 1989

Managed the technical workings and implementation of upgrades within the Central Control Room where the computerized alarms and surveillance gear resides. I managed the upgrade of several voice and data systems. Implemented new policies from Washington State Crime Information Computer managers, and managed local access to terminals.

United States Marine Corps: September 1984 - October 1986

Military Occupational Specialty- Small Missile Systems Technician

Washington State Army National Guard: June 1983 – August 1983

Military Occupational Specialty- Tank Driver

Publications and Presentations – *Over 20 academic peer reviewed publications, 2 technical editorships, over 15 invited speaker engagements, numerous non-peer reviewed academic publications, numerous mass-market publications, and numerous media appearances.*

Book

Devost, M., Dion, M., Healey, J., Gourley, B., **Liles, S**., Mulvenon, C., Pitts, H., Rattray G., "Addressing Cyber Instability", Cyber Conflict Studies Association, 2012

Book Chapter

Liles, S., " A unified generational warfare model", The Handbook of 5th Generation Warfare, 2010

Liles, S., "The issues of non-state actors and the nation state", Threats in the Age of Obama, 2009

Liles, S., Kamali, R., "Information Assurance and Security Curriculum Meeting the SIGITE Guidelines", Handbook of Research on Social and Organizational Liabilities in Information Security; 2008

Journal

Borton, M., **Liles, S**., Liles, S. "Cyberwar Policy", The John Marshall Journal of Computer & Information Law, Spring 2010, pp 303 - 324

Borton, M., **Liles, S**, "Active defense of corporate information systems", IO Journal, May 2010

Wozniak, J., **Liles, S**. "Political and technical roadblocks to cyber attack attribution", IO

Samuel Liles
College of Technology
Purdue University
401 North Grant Street
West Lafayette, IN 47906

Phone (765) 496-2274
sam@selil.com
www.selil.com

Page 4 of 6

Journal, Inaugural Issue, April 2009

Liles, S., A review of Software Forensics by Robert Slade, Journal of Digital Forensic Practice. 2008.

Liles, S., Kamali, R., "An Information Assurance and Security curriculum implementation" The Journal of Issues in Information Systems and Information Technology Volume 3, 2006

Kamali, R., **Liles, S**., Jiang, K., Nicolai, B., "A Curriculum Model Based on the SIGITE Guidelines" Journal of Information Technology Education, Volume 5, 2006.

Amici Curiae

United States v. Ray Andrus, *On Appeal from the United States District Court for the District of Kansas,*" Brief of Amici Curiae Computer Forensics Researchers and Scientists", August 2007

Conference Proceeding

Liles, S., Dietz, J.E., Rogers, M., Larson, D., "Applying traditional military principles to cyber warfare", Fourth Annual International Conference on Cyber Conflict, Cooperative Cyber Defence, Center of Excellence, June 5 – 8, 2012, Talinn Estonia

Uzubell, S., **Liles, S**., Jiang, K., "An Analysis of the Common Body of Knowledge of Software Assurance", SIGITE, October 7 – 9, 2010, Central Michigan University, Midland MI

Liles, S. "Cyberwarfare: A form of low-intensity conflict and insurgency", In proceedings Conference on Cyber Conflict, Cooperative Cyber Defence, Center of Excellence, June 16-18, 2010, Tallinn Estonia

Liles, S., "Cyber warfare compared to fourth and fifth generation warfare as applied to the Internet". In proceedings of International 2007 International Symposium on Technology and Society: Risk, Vulnerability, Uncertainty, Technology and Society, June 1 - 2, 2007, University of Nevada Las Vegas

Rosco, R., Rogers, M. **Liles, S**., "Breaking Down Stereotypes: A Call for an ontological Model". In proceedings of the Hawaii International Conference on System Sciences Hilton Waikoloa Village Waikoloa HI January 3 - 6, 2007

Liles, S., Kamali, R., 2006. "An Information Assurance and Security curriculum implementation". In proceedings of International Informing Science + Information Technology Education joint Conference (Manchester, England, UK, June 25 -28 2006).

Kamali, R., **Liles, S**., Winer, C., Jiang, K., and Nicolai, B. 2005. "An implementation of the SIGITE model curriculum". In Proceedings of the 6th Conference on information Technology Education (Newark, NJ, USA, October 20 - 22, 2005). SIGITE '05. ACM Press, New York, NY.

Liles, S., "A vendor neutral wide area networking course" American Society for Engineering Education 2005 Illinois-Indiana Sectional Conference (Northern Illinois University, DeKalb, Illinois, USA April 1-2, 2005)

Liles, S., "A vendor neutral local area networking course" American Society for Engineering Education 2005 Illinois-Indiana Sectional Conference (Northern Illinois University, DeKalb, Illinois, USA April 1-2, 2005)

Liles, S., "Distance Education II Collaboration With Industry: Utilizing Software To Build Community and Foster Communication", ASEE CIEC 2005, February 24-25, 2005

Technical Editor

Barrett, D., Kipper, G., Virtualization and Forensics: A digital forensic investigator's guide to virtual environments, Syngress 2010

Bolt, S., Xbox Forensics, First Edition, Syngress 2010

Invited Speaker

Speaker – "Cyber security with a global perspective", Pugwash Conference, Purdue

Samuel Liles
College of Technology
Purdue University
401 North Grant Street
West Lafayette, IN 47906

Phone (765) 496-2274
sam@selil.com
www.selil.com

Page 5 of 6

University, April 20, 2013

Speaker – "Cyber as a form of National Power", Institute for World Politics, Center for Culture and Security, Washington DC, November 9, 2012.

Speaker – "Considerations of defense in depth", Dynamic defense workshop, Sandia National Laboratory, September 5th & 6th, 2012, Albuquerque New Mexico

Panel – "Tips and opportunities in graduate school", University Symposium and Open House, Sandia National Laboratory, August 1-2, 2012, Albuquerque New Mexico

Panel – "Military Operations in Cyberspace", Fourth Annual International Conference on Cyber Conflict, Cooperative Cyber Defence, Center of Excellence, June 5 – 8, 2012, Talinn Estonia

Presented – "Cyber Threats" National War College Alumni Meeting, Naples Florida, March 2, 2012

Presented – "Cyber Threats" First Cavalry Alumni Meeting, Springfield Virginia, February 18, 2012

Panelist – "Managing Cyber Risk through Recovery Driven Resiliency", Fort Lesley J. McNair, Washington DC, February 14, 2012

Presented – "Federal Government Privacy Day: Future technology challenges to privacy", Fort Lesley J. McNair, Washington DC, October 15, 2011

Presented – "Cyber Threats", Senior Executive Seminar, John G. Marshall Center, Garmisch Germany, September 8, 2011
http://www.marshallcenter.org/mcpublicweb/en/component/content/article/4-cat-mc-news/944-senior-leaders-discuss-threat-of-cyber-war.html?directory=58

Moderator – "Cyber Security Threats" Spy Museum, Washington, DC, May 18, 2011

Panelist – "Cyber Conflict at the Operational Level", Cyber Conflict Studies Association, Washington DC September 21, 2010

Panelist – "Cyberwarfare and non-state actors", Conference on Cyber Conflict, Cooperative Cyber Defence, Center of Excellence, Tallinn Estonia, June 16-18, 2010

Poster Presentation

Liles, S., Rogers, M., Dietz, J., Larson, D., Raskin, V., "Cyberwarfare as a form of conflict: Evaluation of models of cyber conflict as a prototype to conceptual analysis", CERIAS Research Symposium 2012

Liles, S. "Risk assessment in an information centric world: Threats, vulnerabilities, countermeasures and impacts (a work in progress)", CERIAS Research Symposium 2012

Uzubell, S., **Liles, S**., Jiank, K., "Software Assurance in Academia", SIGITE, October 7 – 9, 2010, Central Michigan University, Midland MI

Bingham N., Dark M., **Liles S**., Mislan R., Rogers M., Rose M., Wedge T., "Digital Forensics Learning Objects", CERIAS Research Symposium 2006

Liles S,, Rogers M,. "Cyber warfare as low intensity conflict", CERIAS Research Symposium 2008.

Technical Publication

Liles, S., Kovacik, S., & O'Day, D. " Proposed Methodology for Victim Android Forensics", Retrieved January 31, 2011 from http://viaforensics.com/?fid=Proposed-Methodology-for-Android-Forensics.pdf, November 2010

Liles, S., Larson, D. "A Gap Analysis for the Indiana Department of Homeland Security District One Law Enforcement", Purdue University Calumet and Indiana Department of Homeland Security District 1, December 2009

Kamali R., **Liles S**., Winer C., "Report on the programs in Computer Information Sciences South Suburban Community College", April 2007

Samuel Liles	Phone (765) 496-2274	
College of Technology	sam@selil.com	
Purdue University	www.selil.com	Page 6 of 6
401 North Grant Street		
West Lafayette, IN 47906		

Dark M., **Liles S**., Rose M., Rogers M., "Computer Forensics: Introduction to Computer Forensics Law", Purdue University, West Lafayette, IN, July 2005

Dark M., **Liles S**., Rose M., Rogers M., "Computer Forensics: Computer Forensics Principles", Purdue University, West Lafayette, IN, July 2005

Mass Media Publications

Liles, S., "Riding in the Wet", Wing World Magazine, Phoenix, Gold Wing Road Riders Association, AZ March 1996

Liles, S., "Even In The Cold", Wing World Magazine, Phoenix, Gold Wing Road Riders Association, AZ January 1996

Liles, S., "Tips on Trailering", Motorcycle Tour & Travel Magazine, September 1995

Liles, S., "Naming The Hazards", Wing World Magazine, Phoenix, Gold Wing Road Riders Association, AZ September 1995

Liles, S., "I Don't Get Angry I Get Even!", Wing World Magazine, Gold Wing Road Riders Association, Phoenix, AZ August 1995

Liles, S., "Group Riding Redux", Wing World Magazine, Gold Wing Road Riders Association, Phoenix, AZ July 1995

Liles, S., "Group Riding On Your Big Bike", Wing World Magazine, Gold Wing Road Riders Association, Phoenix, AZ May 1995

Media Appearances

May 15, 2013, Richard Essex, "Companies using smartphone data to track shoppers", WTHR (http://www.wthr.com/story/22265762/companies-using-smartphone-data-to-track-shoppers)

May 14, 2013, Joshua Foust, "The liberal case for drones", Foreign Policy, (http://www.foreignpolicy.com/articles/2013/05/14/a_liberal_case_for_drones?page=full)

April 24, 2013, Kent Erdahl, "Twitter increasing security after hack", FOX59 (http://fox59.com/2013/04/24/twitter-increasing-security-after-hack/#axzz2RQgv4iqi)

February 27, 2012, Bob Segall, "Cell phone warning: Deleted personal information often left behind", WTHR (http://www.wthr.com/story/21419450/cell-phone-warning-deleted-personal-information-often-left-behind)

February, 7, 2012, Adam Elkus, "Competition in cyberspace: Responding to the proliferation of information-based weapons", Armed Forces Journal, (http://www.armedforcesjournal.com/2013/01/12842322)

February, 4, 2013, Mark Clayton, "Cybersecurity: how preemptive cyberwar is entering the nation's arsenal" Christian Science Monitor, (http://www.csmonitor.com/USA/Military/2013/0204/Cybersecurity-how-preemptive-cyberwar-is-entering-the-nation-s-arsenal)

November 26, 2012, David McNally, "Cybershopping can have security risks", WTHR Channel 13 Indianapolis, (http://www.wthr.com/story/20190387/cybershopping-can-have-security-risks)

July 2012 Eric Beidel "iCollege Takes Nation's Cybersecurity Leaders back to School", National Defense, (http://www.nationaldefensemagazine.org/archive/2012/July/Pages/iCollegeTakesNation'sCybersecurityLeadersBacktoSchool.aspx)