

CURRICULUM VITAE

Gary Craig Kessler

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Technical Specialties:

Course development, teaching, consulting, and research in the areas of maritime cybersecurity, Automatic Identification System (AIS) protocols, and computer and network security.

Education:

- B.A., Mathematics (*cum laude*), Humboldt State University, Arcata, CA, 1975
- Graduate study in Computer Science, University of Arizona, Tucson, AZ, 1975-1976
- M.S., Computer Science, University of Vermont, Burlington, VT, 1980
- Ph.D., Computing Technology in Education, Nova Southeastern University, Ft. Lauderdale, FL, 2010
- Industry certifications held: (ISC)² CISSP
- Security clearance information provided upon request
- Additional qualifications: PADI Master SCUBA Diver Trainer, USCG Merchant Mariner Credential (50 GT/Tow assist), USCG Auxiliary coxswain

Work Experience (since 1999):

- *Principal Consultant, Fathom5, 02/2021-Present.* Work on special projects, research, training, and curriculum development related to maritime and industrial control system cybersecurity.
- *President, Gary Kessler Associates, Ormond Beach, FL, 8/2012-present.* Providing training, consulting, and research services related to cybersecurity, with a focus on maritime issues, digital forensics, and communications networks.
- *Professor of Cybersecurity, Embry-Riddle Aeronautical University, Daytona Beach, FL, 8/2012-12/2020.* Responsible for curriculum design and development of cybersecurity courses as a minor within the Homeland Security program, as well as development of a masters degree in cybersecurity management.
- *Visiting Professor, U.S. Coast Guard Academy, New London, CT, 8-12/2019.* Responsible for teaching and developing introductory information security course as part of new Cyber Systems program, lead seminar in Maritime Cybersecurity, and collaborated on Automatic Identification System (AIS) projects. (This activity during sabbatical from Embry-Riddle.)
- *Department Chair and Professor of Cybersecurity, Embry-Riddle Aeronautical University, Daytona Beach, FL, 7/2015-7/2019.* Responsible for managing more than a dozen faculty members, two undergraduate and two graduate programs, and budget for the Security Studies & International Affairs Dept.
- *Program Director and Associate Professor, Norwich University, Northfield, VT, 9/2011-6/2012.* Responsible for curriculum design and development, recruitment and retention of faculty, and student admissions for the M.S. in Information Assurance (MSIA) program.
- *President, Gary Kessler Associates, Burlington, VT, 7/2010-7/2012.* Develop and deliver training, consulting, and services related to computer forensics and information security.
- *Assoc. Professor and Program Director, Champlain College, Burlington, VT, 7/2000-6/2010.* Responsible for coordinating course offerings, hiring and managing full-time and adjunct faculty, designing and teaching courses, and updating the curriculum for the Computer Networking, Computer & Digital Forensics, and Information Security majors. Director, Champlain College Center for Digital Investigation. Led team preparing successful application for college's designation as a National Center

of Academic Excellence in Information Assurance Education (CAEIAE). Developer and director of the M.S., Digital Investigation Management program.

- *Senior Network Security Analyst, SymQuest Group, South Burlington, VT, 7/1999-6/2000.* Manage and helped build the company's consulting practices in the network security, Internet access, and WAN space. Involved in all aspects of the practice, from sales, recruitment, RFP response, needs assessment, training, and implementation.

Other Related Information:

- Co-author of *Maritime Cybersecurity: A Guide for Leaders and Managers, 2/e* (2022), <https://www.garykessler.net/MaritimeCybersecurityBook/>.
- Non-Resident Senior Fellow, Cyber Statecraft Initiative, Scowcroft Center for Strategy and Security, The Atlantic Council (2021-present).
- Editorial review board, *TransNav, The International Journal on Marine Navigation and Safety of Sea Transportation* (2018-present).
- USCG Auxiliary, 7th District, Flotilla 44, Daytona Beach, FL (2017-present) — Flotilla Staff Officer, Finance; Flotilla Staff Officer, Navigation Systems; Chief, Cybersecurity Prevention Operations Division, Auxiliary Cybersecurity Augmentation Program (AUXCYBER).
- Captain, Marine Discovery Center, New Smyrna Beach, FL (2015-present).
- Editor-in-chief (2011-2012) and member of editorial board (2005-2019), *Journal of Digital Forensics, Security and Law*.
- Public Outreach Coordinator, mobile device examiner, and advisory board member of the Vermont Internet Crimes Against Children (ICAC) and Internet Crimes Task Forces (1999-2012); mobile device examiner, North Florida ICAC (2012-2015).
- Numerous training and consulting activities in computing and data communications within the telecommunications industry, to both technical and non-technical audiences; have also taught and/or consulted in Australia, Brazil, Canada, Mexico, and the U.K. Have provided instruction or advice to numerous community groups, including testifying to the Vermont Legislature about the need for computer crime and digital signature legislation, and defining the role of digital forensics examiners.
- Instructor with the U.S. Department of State, Diplomatic Security Service, Anti-Terrorism Assistance Cybertraining program (2008-2011).
- Author or co-author of more than 100 articles, peer-reviewed papers, and book chapters; lead author of *ISDN: Concepts, Facilities, and Services* (4/e, 1998) and *METROPOLITAN AREA NETWORKS: Concepts, Standards, and Services* (1992).
- Frequent speaker at industry and academic conferences throughout the world.
- Past and current participant in numerous standards activities, including those related to maritime electronics, computer forensics education and practitioner certification, and networking technologies.

Personal Information:

- Life Member (and former chief) of Colchester Rescue Squad, past member of (and current Webmaster for) the Green Mountain Critical Incident Stress Management Team, and past member of Malletts Bay Fire Department and Malibu Mountain Rescue Team.
- Hobbies include reading, playing the guitar, SCUBA diving, boating, walking, and hiking.

DETAILED RESUME

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gck@garykessler.net

(This resume only includes activity since 2000 except for a few major items before that. A complete resume dating back to the 1970s can be provided upon request.)

EDUCATION AND CERTIFICATIONS:

- 1975 Humboldt State University, Arcata, California
B.A., Mathematics (*cum laude*)
(Computer and Statistics options)
- 1975-1976 University of Arizona, Tucson, Arizona
Graduate study in Computer Science
- 1980 University of Vermont, Burlington, Vermont
M.S., Computer Science
Thesis title: *A Computer Model of Hypoxic Man*
- 2010 Nova Southeastern University, Ft. Lauderdale, Florida
Ph.D., Computing Technology in Education
Research title: *Judges' Awareness, Understanding, and Application of Digital Evidence*

Professional Certifications:

- International Information Systems Security Certification Consortium [(ISC)²] Certified Information Systems Security Professional (CISSP), March 2005-present
- The International Society of Forensic Computer Examiners (ISFCE) Certified Computer Examiner (CCE), June 2007-present

Security clearance information provided upon request.

SCUBA and Mariner Certifications:

- Open Water Diver, Professional Association of Diving Instructors (PADI), 1991
- Divemaster, PADI, 2009
- Open Water SCUBA Instructor, PADI, 2009
- Master SCUBA Diver Trainer, PADI, 2011
- U.S. Coast Guard Captain's license (50GT Master/Tow Assist), 2012

WORK EXPERIENCE:

February 2021-present Principal Consultant
Fathom5

Provide technical research support on special projects, provide external consulting services, and support training and curriculum development initiatives related to maritime and industrial control system cybersecurity.

July 2010-present PRESIDENT
Gary Kessler Associates
Ormond Beach, Florida

Provide consulting, training, and practitioner services related to computer forensics, mobile device forensics, and information security, with a particular focus on maritime cybersecurity. Have worked with U.S. Department of State, Diplomatic Security Service, Anti-Terrorism Assistance Cybertraining program, Vermont Internet Crimes Against Children (ICAC) Task Force, Teel Technologies, Champlain College

Center for Workforce Development, Hudson Analytix, and Fathom5.

August 2019- VISITING PROFESSOR
December 2019 U.S. Coast Guard Academy
New London, Connecticut

Visiting professor at USCGA during sabbatical from Embry-Riddle. Assigned to coordinate and develop "Foundations of Information Security" course for the new Cyber Systems program, as well as help advise program leaders regarding the overall development of the major. Also taught a special topics course in "Maritime Cybersecurity." Collaborated with several projects regarding Advanced Identification System (AIS) protocols, including an automated iceberg reporting software project. Provided liaison to several projects at the USCG Research & Development Center. (This activity during sabbatical from Embry-Riddle.) The "Maritime Cybersecurity" seminar was also offered in fall 2021, and I remain on the USCGA Cyber Council.

August 2012- DEPARTMENT CHAIR (7/2015-7/2019)
December 2020 PROFESSOR OF CYBERSECURITY (7/2014-12/2020)
ASSOCIATE PROFESSOR OF CYBERSECURITY (8/2012-6/2014)
SECURITY STUDIES & INTERNATIONAL AFFAIRS DEPARTMENT
Embry-Riddle Aeronautical University
Daytona Beach, Florida

Teach courses in the Homeland Security undergraduate program. Responsible for curriculum design and development of a cybersecurity minor within the program, as well as develop and chair the graduate online cybersecurity program. Provide student advising and public outreach services. As department chair, oversaw day-to-day operations of the SSIA Dept., including more than a dozen full-time faculty, two B.S. and two M.S. programs, budget, and several adjunct faculty and student workers; provided mentoring for faculty and staff, led strategic planning efforts, and managed staffing and curriculum. Research interests include aviation cybersecurity, maritime cybersecurity, and Automatic Identification System (AIS).

March 2011- INTERIM ASSOCIATE PROGRAM DIRECTOR (ACADEMICS) (3/2011-8
June 2012 /2011)
PROGRAM DIRECTOR/ASSOCIATE PROFESSOR (9/2011-6/2012)
MASTER OF SCIENCE IN INFORMATION ASSURANCE (MSIA) PROGRAM
Norwich University
Northfield, Vermont

Responsible for curriculum design and development, recruitment and retention of faculty, and student admissions for the graduate program. Initial task was to lead redesign of the program curricula to meet the evolving needs of the students, potential employers, and the marketplace.

July 2000- ASSOCIATE PROFESSOR (2000-2010)
June 2010 PROGRAM DIRECTOR, COMPUTER NETWORKING (2000-2007)
PROGRAM DIRECTOR, COMPUTER & DIGITAL FORENSICS (2003-2007)
PROGRAM DIRECTOR, INFORMATION SECURITY (2005-2007)
DIRECTOR, CENTER FOR DIGITAL INVESTIGATION (2006-2009)
PROGRAM DIRECTOR, M.S. IN DIGITAL INVESTIGATION MANAGEMENT
(2009-2010)
Champlain College
Burlington, Vermont

Initial primary role was to manage courses in the Computer Networking A.S. degree and professional certificate programs, and coordinate curriculum with other programs within the department, particularly Telecommunications. Responsible for staffing, and the hiring and management of full-time and adjunct faculty. Updated the curriculum to address information assurance and other up-to-date industry requirements, including the design of a 4-year B.S. Computer Networking degree commencing in 2002. Course development in the areas of Internet and Web architecture, TCP/IP, routers, computer and network security, and computer forensics. Primary developer of the Computer & Digital Forensics curriculum leading to a B.S. degree, commencing in 2003 (and becoming an online program in 2004); principal investigator on Dept. of Justice (DOJ) grant to design and coordinate e-crime curriculum in cooperation with the National Institute of

Justice (NIJ) Electronic Crime Partnership Initiative (ECPI). Led effort to develop Information Security B.S. degree program, commencing in 2005, and teamwork leading to designation as a National Center of Academic Excellence in Information Assurance Education (CAEIAE) in 2007. Work with various industry groups to identify educational requirements for future workers in all of these fields. Led proposal for M.S. program in Digital Investigation Management (2005-07), participated in application for initial program approval by regional accreditation board (2007-08), was named program director (2009), managed and coordinated course development (2009-10), and led efforts for final accreditation of the program (2010). In 2006, assumed role of director of Champlain College Center for Digital Investigation (C3DI), a DOJ-funded grant project and partnership between the college, Vermont Internet Crimes Against Children (ICAC) Task Force, and several law enforcement training organizations. Additional work within the college community includes the development of college-wide educational competencies for undergraduates, member and co-chair of the Curriculum Committee (2002-2005), and information security instructor in college's Managing Innovation in Information Technology M.S. program. Also spearhead information security projects for the Vermont Information Technology Center (VITC), a collaboration between the Vermont Technology Council and Champlain College.

CONFERENCE ACTIVITIES:

- Presented "An Introduction to Cryptography, Certificates, and PKI" at *SANS 2000, Monterey*, October 2000.
- Presented "Introduction to TCP/IP for Intrusion Detection" tutorial at *SANS D.C.*, December 2000.
- Presented "An Introduction to TCP/IP" tutorial at *COMNET D.C. 2001*, January 2001.
- Presented an "Overview of Telecommunications Technologies" to the Vermont Legislature, January 2001.
- Presented "Security and ISPs" talk at New York State Telecom Association and Telecommunications Association of New England (NYSTA/TANE) Annual Meeting, February 2001, Albany, NY.
- Co-presented "The Future of Infosec" at The 2001 e-protectIT Conference offered by Norwich University and the Vermont Army National Guard, March 2001, Northfield, VT.
- [Webmaster](#) and member of organizing committee, *26th IEEE Local Computer Networks Conference*, November 2001.
- Presented updated "Security and ISPs" talk at Telecommunications Association of New England (TANE) Meeting, September 2001, Albany, NY.
- Presented "Recommended Security Practices" and "Ethics, the Internet, and Teenagers" at VITA-Learn, November 2001, Killington, VT.
- Presented "An Overview of the Global Analysis and Response Initiative at incidents.org" at The 4th e-protectIT Conference, Norwich University, March 2002, Northfield, VT.
- Presented "Recommended Security Practices" and "Ethics, the Internet, and Teenagers" at Dynamic Landscapes Symposium, May 2002, Burlington, VT.
- Presented "Recommended Security Practices" and "Ethics, the Internet, and Teenagers" at Vermont Library Conference, May 2002, Burlington, VT.
- Presented "Introduction to Computers and the Internet" at *SAFETY NET: Multidisciplinary Approach to Investigating and Prosecuting Computer-Facilitated Crimes Against Children*, sponsored by the National District Attorneys Association, June 2002, Burlington, VT. Hosted and organized this event on behalf of Champlain College.
- Presented cryptography sessions at the Information Technology Institute, Champlain College, part of the Governor's Institutes of Vermont, June 2002, Burlington, VT.
- Presented "Ethics, the Internet, and Teenagers" at *VITA-Learn*, November 2002, Killington, VT.
- Presented "Introduction to Computers and the Internet" and "Cryptography and Steganography" at Computer Crimes Basic Investigative Techniques courses, sponsored by the Vermont Internet Crimes Against Children Task Force and Vermont State Police, August 2002 and January 2003, Burlington, VT.
- [Webmaster](#) and member of organizing committee, *27th IEEE Local Computer Networks Conference*, November 2002.
- Presented "Cyber Forensics" talk at ESCC/Internet2 Techs Workshop, February 2003.
- Presented "Computer Forensics: An Investigative Overview" to the annual meeting of the Vermont Chapter of the FBI National Academy Associates, March 2003, Rutland, VT.
- Presented "Cyberethics and K-12 Education" and "Applying Computer & Network Security to the K-12 Environment" at Dynamic Landscapes Symposium, May 2002, Castleton, VT.
- [Webmaster](#) and member of organizing and program committees, *28th IEEE Local Computer Networks*

Conference, October 2003.

- Presented "Cyberethics and K-12 Education" and "Computer Forensics" at *VITA-Learn*, November 2003, Killington, VT.
- Presented lectures on cryptography, steganography, and TCP/IP at *HTCIA Annual Conference*, September 2004.
- Keynote speaker on computer forensics education at *Computer Forensics Symposium 2004*, Metropolitan State University, St. Paul, MN, October 2004.
- **Webmaster** and member of organizing and program committees, *29th-32nd IEEE Local Computer Networks Conference*, November 2004, November 2005, November 2006, and October 2007.
- Presented lectures on TCP/IP at *Southeast Cybercrime Summit*, March 2005.
- Presented lectures on cryptography, steganography, and TCP/IP at *HTCIA Annual Conference*, August 2005.
- Taught portions of Internet technology and investigations as part of *CyberSleuth* course for National District Attorneys Association, January 2006 and January 2007.
- Presented lectures on cryptography and TCP/IP at *DoD Cyber Crime Conference*, January 2006.
- Presented lectures on steganography and TCP/IP at *Southeast Cybercrime Summit*, March 2006.
- Participated in panel session on The Future of Digital Forensics, representing the academic perspective, at the *Colloquium for Information Systems Security Education*, June 2006.
- Presented lecture on online computer forensics training and education at the *International Association of Directors of Law Enforcement Standards and Training (IADLEST) Annual Conference*, June 2006.
- Presented lecture on academia's role in information security and digital forensics at the *Cyber Security Summit*, October 2006.
- Presented lectures on cell phone forensics and TCP/IP at the *HTCIA Annual Conference*, October 2006.
- Presented paper on online undergraduate digital forensics education and pedagogy at the *40th Hawaii International Conference on System Sciences (HICSS-40)*, January 2007.
- Presented lecture on cell phone forensics at *DoD Cyber Crime Summit*, January 2007.
- Presented lectures on cryptography and TCP/IP at the *Southeast Cybercrime Summit*, March 2007.
- Presented paper on network forensics and member of program committee, *Conference on Digital Forensics, Security and Law*, April 2007.
- Presented lectures on cell phone forensics, cryptography, TCP/IP protocol analysis, and Internet tools at the *HTCIA Annual Conference*, August 2007.
- Gave paper on experience with hands-on exercises in online computer forensics courses and participated on panel session, at *CFET 2007: 1st International Conference on Cybercrime Forensics Education & Training*, September 2007.
- Gave talk on the role of digital forensics at the *Vermont Association of Investigative & Security Services Annual Meeting*, October 2007.
- Presented keynote address ("The Acceptability of Digital Evidence") and paper on anti-forensics at the *5th Australian Digital Forensics Conference*, December 2007.
- Presented paper on the pedagogy and design of an M.S. degree program in digital investigation management at the Digital Forensics Mini-Track, *41st Hawaii International Conference on System Sciences (HICSS-41)*, January 2008. *Best Paper nominee*.
- Gave talk on network forensics at *The Computer Forensics Show*, February 2008.
- Gave talk on the role of digital forensics at the *Vermont Paralegal Association Annual Meeting*, April 2008.
- Led workshop titled "Computer Forensics Examiners as Private Investigators: The Role of Academia in the Debate" at the *Conference on Digital Forensics, Security and Law*, April 2008.
- Gave talk on cell phone forensics at *Mobile Forensics World*, May 2008.
- Presented paper on hands-on digital forensics exercises and chaired paper session at *Colloquium for Information Systems Security Education*, June 2008. *Received Best Paper award*.
- Presented paper on mock trials in undergraduate digital forensics education and participated on panel session, at *CFET 2008: 2nd International Conference on Cybercrime Forensics Education & Training*, September 2008.
- Presented talk on TCP/IP investigative tools and led lab on TCP/IP protocol analysis and packet sniffing at the *HTCIA Annual Conference*, October 2008.
- Presented talk on computer forensics at *Dartmouth College's Securing the eCampus 2.0* conference, November 2008.
- Led tutorial on computer forensics at the *42nd Hawaii International Conference on System Sciences*

(HICSS-42) (January 2009).

- Presented talk on the value and effectiveness of digital forensic evidence at the meeting of the New England chapter of the HTCIA, March 2009.
- Host and conference chair, *Conference on Digital Forensics, Security and Law*, Burlington, VT (May 2009)
- Presented talk on the process of mobile device forensics and participated in panel on standardization and certification of the mobile forensics process at *Mobile Forensics World*, May 2009.
- Presented talk on challenges of digital forensic evidence at *TechnoSecurity*, June 2009.
- Presented talk on future issues for digital forensics at the *Annual Meeting of the New England Chapter of the FBI National Academy Associates*, June 2009.
- Participate in panel session on Forensic Challenges in the Court Room at *SANS Forensics & Incident Response Summit*, July 2009.
- Presented talks on the challenges of digital evidence and the relationship between training, education, certification, and PI licensure at the *HTCIA Annual Conference*, August 2009.
- Led Webinar about Tracing IP Addresses on behalf of Vere Software, October 2009.
- Presented talk about cryptography and steganography to the Vermont Anti-Terrorism/Law Enforcement Coordination Committee, November 2009.
- Presented talks about cryptography, TCP/IP protocol analysis, and a jihadist cryptosystem at the DoD Cybercrime Conference, January 2010.
- Presented talk on steganography at Victim's Rights: Emerging Issues in the Criminal Justice System Conference, April 2010.
- Presented talk on mobile device forensics process at Mobile Forensics World, May 2010.
- Member of the "Curriculum Design and Implementation in Computer Forensics Education" panel at the Conference of Digital Forensics, Security and Law, May 2010.
- Presented talk on cryptography at TechnoSecurity, June 2010.
- Presented talk on "Computer Forensics for Judges" at Vermont Judicial College, June 2010.
- Presented talk on challenges to digital evidence at the 4th International Conference on Cyberlaw, August 2010.
- Presented talks on TCP/IP protocol analysis and cryptography at the 2010 HTCIA Annual Conference, September 2010.
- Presented keynote speech about information security and talks on cell phone analysis and TCP/IP investigative tools at the 2010 Wisconsin Association of Computer Crime Investigators (WACCI) Conference, October 2010.
- Presented talks on TCP/IP protocol analysis and tracing IP addresses tools at the 2011 Computer and Enterprise Investigations Conference (CEIC), May 2011.
- Presented talks on the process of mobile device forensics and Cryptography and Steganography Apps on the iPhone at the TechnoSecurity/Mobile Forensics Conference, June 2011.
- Presented talk on cryptography at the DoD Cyber Crime Conference, January 2012.
- Presented talks on the process of mobile device forensics and cryptography at the National Cyber Crime Conference, April/May 2012.
- Presented talk on challenges to digital forensic evidence at The Evidence Conference, October 2012.
- Presented talks on on tracing IP address and report writing, and moderated judges panel at the National Cyber Crime Conference, April 2013.
- Presented talk about cryptography and steganography, Florida High Technology Crime Investigation Association (HTCIA) Chapter meeting, Ft. Lauderdale, FL, December 2013.
- Presented TCP/IP packet sniffing and IP address tracing tutorials at Florida Internet Crimes Against Children (ICAC) Annual Conference, Orlando, FL, December 2013.
- Presented "Cybersecurity Education in a Homeland Security Curriculum" and co-chaired IS Education and Training mini-track, 47th Hawaii International Conference on System Sciences (HICSS-47), Waikoloa, HI, January 2014.
- Presented report writing talk and moderated judges' panel on digital evidence at the National Cyber Crime Conference (NCCC), Boston, MA, April 2014.
- Presented "Report Writing" and "Tracing IP Addresses" at the Appalachian Institute of Digital Evidence (AIDE) 2014 Conference, Marshall University Forensic Science Center, Huntington, WV, April 2014.
- Invited speaker: "Is Cell Phone Forensics Really Forensics?" at the NIST Mobile Forensics Workshop and Webcast, Gaithersburg, MD, June 2014.
- Invited speaker: "Lone Wolf Cyberterrorism" at the NATO Advanced Research Workshop Lone Actors

- An Emerging Security Threat, Jerusalem, Israel, November 2014.
- Presented TCP/IP packet sniffing and IP address tracing tutorials at the Florida Internet Crimes Against Children (ICAC) Annual Conference, Orlando, FL, December 2014.
- Presented "Exploring Myths in Digital Forensics" at the American Academy of Forensic Sciences Annual Meeting, February 2015.
- Presented "Solid State Device Forensics," "Tracing IP Addresses," "Report Writing," and "Mobile Device Forensics" at the National Cyber Crime Conference (NCCC), Boston, MA, April 2015.
- Presented "Lone Operator Cyberterrorism" and "Myths of Digital Forensics" at the Appalachian Institute of Digital Evidence (AIDE) 2015 Conference, Marshall University Forensic Science Center, Huntington, WV, April 2015.
- Presented IP address tracing, mobile device forensics, solid state devices, and wireless network fundamentals tutorials at Florida Internet Crimes Against Children (ICAC) Annual Conference, Orlando, FL, December 2015.
- Presented SSD forensics, tracing IP addresses, and mobile device forensics at the National Law Enforcement Training on Child Exploitation Annual Conference, Atlanta, GA, April 2016.
- Presented "IP Address Tracing," "Mobile Device Forensics," "Overview of Wireless Networks," and "Report Writing" at the National Cyber Crime Conference, April 2016.
- Invited speaker: "Identification of Potential Terrorists and Adversary Planning" session at the NATO Advanced Research Workshop on Emerging Technologies and New Counter-Terror Strategies, Washington, D.C., July 2016.
- Presented "Using Journals to Assess Non-STEM Student Learning in STEM Courses: A Case Study in Cybersecurity Education," 50th Hawaii International Conference on System Sciences (HICSS-50), January 2017.
- Panelist at President's Forum on Data -- "The New Game in Cyber Security: Security Analytics," University at Albany, New York, March 2017.
- Presented talks on tracing IP addresses, IP version 6, router forensics, and report writing at the National Cyber Crime Conference, Boston, April 2017.
- Led "Cryptography," "Tracing IP Addresses," and "TCP/IP and Packet Sniffing" at Crimes Against Children Conference, Dallas, August 2017.
- Presented talk on Aviation Cybersecurity at Safeskies Australia, Canberra, ACT, October 2017.
- Presented talks on tracing IP addresses, NTFS, mobile device forensics, and report writing at the National Cyber Crime Conference, Boston, April 2018.
- Participated in panel session on human factors in cybersecurity sponsored by Human Factors & Ergonomics Society, July 2018, with talk titled "Human Factors and the Computer Interface: Does Easier to Use Improve Understanding?"
- Presented "Aviation Cybersecurity" talk as part of Technology in Aviation panel at 31st National Training Aircraft Symposium, Daytona Beach, August 2018.
- Presented "Air & Space Information Sharing and Analysis Organization (AS-ISAO)" at the International Association of Certified ISAOs (IACI) Cyber Summit, Cape Canaveral, November 2018.
- Presented "Cyber Attacks and Physical Property Damage" at ASTM F25 Workshop on Autonomous Shipping, Vessel Automation and Maritime Cyber Security, Washington, D.C., December 2018.
- Presented talk on "Passwords, Cryptography, Privacy, and the Fifth Amendment" at the Interdisciplinary Conference on Cybercrime, Michigan State University, E. Lansing, MI, April 2019.
- Presented talks on tracing IP addresses, router forensics, wireless technologies, and VPNs and the Dark Web at the National Cyber Crime Conference, Boston, April 2019.
- Keynote presentation on "Passwords, Cryptography, Privacy, and the Fifth Amendment" at the ADFSL Conference of Digital Forensics, Security and Law, Embry-Riddle Aeronautical University, Daytona Beach, May 2019.
- Presented talk on maritime cybersecurity at National Marine Electronics Association (NMEA) 2019 Conference & Expo, September 2019.
- Presented talks on tracing IP addresses, router forensics, wireless technologies, and crypto/privacy/5th Amendment at the National Cyber Crime Conference, Boston, July 2020.
- Presented talks on AIS security at DEF CON/Hack The Sea Village, August 2020 and August 2021.
- Presented talks on "Cyberterrorism" and "Maritime Cybersecurity" as part of the Naval Education and Training Security Assistance Field Activity (NETSAFA) course on International Anti-terrorism/Anti-piracy (IATP) course, December 2016-present.

OTHER PROFESSIONAL ACTIVITIES:

- Internet Crimes Against Children (ICAC)
 - Technical adviser to Vermont ICAC (1999-2012). Helped organize and deliver computer and network first responder training to police officers in the region, and hosted courses from other organizations.
 - Participated in computer and network investigations. Lead mobile device examiner for the Vermont ICAC (2006-2012).
 - Public awareness outreach coordinator, Vermont ICAC (2008-2012).
 - Have presented webinars and training videos for the National ICAC training program (2011-present).
 - Member of the North Florida ICAC (2012-present) and Hawaii ICAC (2013-present).
- Originated the Vermont Information Security Coordination Center at Champlain College (2000) leading to the formation of the [Vermont InfraGard chapter](#), (2001). Chapter Chair, (2000-2005), Webmaster (2000-2012), Secretary (2006-2012).
- Board member of Vermont Telecom Advancement Center (<http://www.vtac.org>), 2001-2004.
- Member of SANS faculty, 2000-2002. Primary focus on TCP/IP, security essentials, and cryptography.
- Teach about cryptography and steganography for the Information Operations training taught to U.S. National Guard units by the Vermont National Guard, 2001-2011.
- Security Technology chair for the IEEE Technical Committee on Computer Communications (TCCC), 2002-2005.
- Adjunct member of graduate faculty in the Master of Science in Information Assurance (MSIA) program at Norwich University, Northfield, VT, 2002-2003.
- Taught computer forensics course for educators, Boston Area Advanced Technological Education Center (BATEC), July 2005 and July 2006.
- Editorial board member (2005-2006) and Associate Editor (2007-2010), *Journal of Digital Forensic Practice*.
- Editorial board member (2005-present), Associate Editor (2009-2010), Book Review Editor (2006-2010), and Editor-in-Chief (2011-2013), *Journal of Digital Forensics, Security and Law*.
- International Board of Referees (2006-present), *Digital Investigation*.
- Certified Computer Examiner (CCE) Bootcamp® instructor (2007-2013).
- Member of Forensic Education Program Accreditation Committee (FEPAC) (2008-2010).
- U.S. Department of State, Diplomatic Security Service, Anti-Terrorism Assistance Cybertraining program instructor (2008-2011).
- Member of the Digital Forensics Certification Board (DFCB), Certification and Testing Committee (2008-2010).
- Editorial review board, *International Journal of Digital Crime and Forensics* (2008-present).
- Member of program committee, Symposium on Applied Computing (SAC), Computer Forensics track (2008-present).
- Board member, Consortium of Digital Forensic Specialists (CDFS) (2010-2017); Treasurer (2011-2017).
- Member of program committee, The 4th International Conference on Cyberlaw (2010).
- Member of program committee, The 5th International Conference on Digital Forensics & Cyber Crime, Moscow, September 2013 (Sponsored by European Alliance for Innovation).
- Member of program committee, ADFSL Conference on Digital Forensics, Security and Law, June 2013.
- Co-chair of Information Systems Education and Training mini-track for the Hawaii International Conference on System Sciences, January 2014.
- International Society for Forensic Computing Examiners (ISFCE) Certified Computer Examiner (CCE) Appeals Committee (July 2013-present).
- Lecturer on cyberterrorism and maritime cybersecurity, International Anti-Terrorism/Anti-Piracy program, NAS Pensacola (December 2016-present).
- Advisory board to Maritime & Port Security Information Sharing and Analysis Organization (MPS-ISAO) (November 2017-present).
- Pre-processor/user interface and NMEA sentence unpacker code contributed to TrendMicro [AIS BlackToolkit](#).

PUBLICATIONS:

- *METROPOLITAN AREA NETWORKS: Concepts, Standards, and Services*. New York: McGraw-Hill, 1992. (GCK & D.A. Train).
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SELECT COMMUNITY ACTIVITIES:

- U.S. Coast Guard Auxiliary, Flotilla 44, Daytona Beach, 2017-present.
- Volusia County Reef Report, 2016-present.
- Volusia County Reef Research Dive Team, 2013-2016.
- Volusia County Sheriff's Office/N. Florida ICAC, 2012-2014.
- Southwind Condominium Association Board, 2005-2012; Board President, 2009-2012.
- American Heart Association Cardiopulmonary Resuscitation (CPR) instructor, 1999-2002.
- Member of Green Mountain Critical Incident Stress Management Team, 1997-2012; Webmaster, 2015-present.
- Vermont Emergency Medical Technician (EMT), 1979-2006.
- Malletts Bay Fire Department, Colchester, Vermont, 1979-1981, 1984-1986.
- [Colchester Rescue Squad](#), Colchester, Vermont, 1978-1981, 1984-1999, 2002-2005. Positions held include Chief (1987-1994, 1995-1996) and Assistant Chief (1986-1987, 1995). Also statistician (1979-1999) and Webmaster (1996-2005). Elected Life Member, 1999.