# Nicole L. Beebe, Ph.D.

Melvin Lachman Distinguished Professor Professor of Cyber Security

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#### **RESEARCH / TEACHING INTERESTS**

**Digital Forensics** (media / network forensics, intelligent forensic algorithms, IoT forensics) **Cyber Security** (insider threat, malware risk assessment & classification) **Data Analytics** (cyber analytics, computational digital forensics)

#### **EDUCATION**

Doctorate of Philosophy, Information Technology, 2007
The University of Texas at San Antonio, College of Business
Dissertation: "Improving Information Retrieval Effectiveness in Digital Forensic Text String Searches: Clustering Search Results Using Self-Organizing Neural Networks"

**Master of Science**, Criminal Justice, 1997 Georgia State University

Thesis: "DoD Procurement Fraud—A Trend Analysis 1983-1996"

**Bachelor of Science**, Electrical Engineering, 1995 Michigan Technological University

#### **CERTIFICATIONS/LICENSES**

CISSP (Certified Information Systems Security Professional), since Dec 2001 (#27460) CCFP (Certified Cyber Forensics Professional), since Jul 2013 (#27460) EnCE (EnCase Certified Digital Forensics Examiner), 2004-2019 ACE (Access Data Certified Examiner), 2009-2018

#### **WORK EXPERIENCE**

2019-Present, Professor & Chair, Dept. of Information Systems & Cyber Security, UTSA 2015-Present, Director, Cyber Center for Security & Analytics, Univ. of Texas at San Antonio 2015-Present, Melvin Lachman Distinguished Professor, Univ. of Texas at San Antonio 2014-2019, Associate Professor, The University of Texas at San Antonio 2007-2018, Manager, Digital Forensics & Investigations, HEI S&S / Digitactics, Inc. 2008-2014, Assistant Professor, The University of Texas at San Antonio 2007-2008, Visiting Assistant Professor, The University of Texas at San Antonio 2003-2007, Instructor & Research Assistant, The University of Texas at San Antonio 2001-2007, Computer Crime Investigator, USAF (Reservist; Highest Rank: Major) 2001-2003, Network Security Engineer, Science Applications Int'l Corp. (SAIC) 1999-2001, Chief, Computer Investigations & Operations, US Air Force (Active Duty) 1998-1999, Computer Crime Investigator, US Air Force (Active Duty)

## **COURSES TAUGHT (\*DEVELOPED)**

- \*IS 7033 Topics: Information Systems Security Research
- \*IS 6973 Special Problems in IT: Advanced Topics and Research in Digital Forensics
- \*IS/ACC 6973 Special Problems in IT: Fundamentals of Cyber Forensics
- \*IS 6713 Data Foundations (in MS Data Analytics program)
- \*IS 6363 Computer Forensics
- \*IS/ACC 5513 Fundamentals of Information Assurance
- \*IS 4953 Special Topics in IS: Pathogenic Outbreak Investigations
- \*IS 4523 Digital Forensic Analysis II
- \*IS 4483 Digital Forensic Analysis I
- IS 3513 Information Assurance and Security
- \*IS/ACC 3503 Attack & Defend: An Introduction to Information Assurance
- \*IS/ACC 3433 Introduction to Computer Forensics
- IS 1503 Introduction to Cyber Security
- \*COR 1403 Freshman Seminar for Business Majors

### **JOURNAL PUBLICATIONS (PEER-REVIEWED)**

- 1. De La Torre Parra, Gonzalo, Paul Rad, Kim-Kwang Raymond Choo, **Nicole Lang Beebe**, "Detecting Internet of Things Attacks using Distributed Deep Learning," *Journal of Network & Computer Applications* (forthcoming).
- 2. Maasberg, Michele, Xiao Jerry Zhang, Myung Ko, Stewart Miller, **Nicole Lang Beebe**, "An Analysis of Motive and Observable Behavioral Indicators Associated with Insider Cyber Sabotage and Other Attacks," *IEEE Engineering Management Review*, (forthcoming).
- 3. **Beebe, Nicole Lang** and Frederick R. Chang (2019) "Cybersecurity: Rethinking the Definition of Insider Threat," *The BRIDGE: Linking Engineering & Society*, National Academy of Engineering (49:3), pp 12-19.
- 4. Zhang, Xiaolu, Kim-Kwang Raymond Choo, **Nicole Lang Beebe** (2019) "How do I share my IoT forensic experience with the broader community? An automated knowledge sharing IoT forensic platform," *IEEE Internet of Things Journal* (6:4), pp 6850-6861.
- Silva, Samuel Henrique, Paul Rad, Nicole Lang Beebe, Kim-Kwang Raymond Choo, Mahesh Umapathy (2019) "Cooperative Unmanned Aerial Vehicles with Privacy Preserving Deep Vision for Real-Time Object Identification and Tracking," *Journal of Parallel and Distributed Computing*, (131), pp 147-160.
- 6. Zhang, Xiaolu, Justin Grannis, Ibrahim Baggili, **Nicole Lang Beebe** (2019) "Frameup: An Incriminatory Attack on Storj: A Peer to Peer Blockchain Enabled Distributed Storage System," *Journal of Digital Investigation*, vol 29, pp 28-42.
- 7. Young, Diana, **Nicole Lang Beebe**, Glenn Dietrich, Charles Liu (2016) "An Empirical Examination of an Agile Contingent Project/Method Fit Model," *Communications of the Association for Information Systems (CAIS)*, (39:1), pp 267-296.
- 8. **Beebe, Nicole Lang**, Jan Guynes Clark, Frederick R. Chang, Priya Padmanabhan (2014) "Ranking Publication Outlets for Information Security Research," *Journal of Information System Security*, (10:2), pp 37-57.
- 9. **Beebe, Nicole Lang** and Lishu Liu (2014) "Clustering Digital Forensic String Search Output," *Journal of Digital Investigation*, (11:4), pp 314-322.
- 10. **Beebe**, **Nicole Lang**, Diana L. Young, Frederick R. Chang (2014) "Framing Information Security Budget Requests to Influence Investment Decisions," *Communications of the Association for Information Systems (CAIS)*, (35:1), pp 133-143.

- 11. Maasberg, Michele and **Nicole Lang Beebe** (2014) "The Enemy Within the Insider: Detecting the Insider Threat Through Addiction Theory," *Journal of Information Privacy and Security (JIPS)*, (10:2), pp 59-70.
- 12. **Beebe, Nicole Lang**, Laurence A. Maddox, Lishu Liu, Minghe Sun (2013) "Sceadan: Using Concatenated N-Gram Vectors for Improved Data/File Type Classification," *IEEE Transactions on Information Forensics and Security*, (8:9), pp. 1519-1530.
- 13. Ko, Myung, Ruben Mancha, **Nicole Lang Beebe**, Hyun Shik Yoon (2012) "Customers' Personality, Their Perceptions, and Green Concern on Internet Banking Use," *Journal of Information Technology Management (JITM)*, (23:4), pp. 21-32.
- 14. **Beebe, Nicole Lang**, Jan Guynes Clark, Glenn B. Dietrich, Myung S. Ko, Daijin Ko (2011) "Post-Retrieval Search Hit Clustering to Improve Information Retrieval Effectiveness: A Digital Forensics Case Study," *Decision Support Systems (DSS)*, (51:4), pp 732-744.
- 15. **Nicole Lang Beebe** and V. Srinivasan Rao (2010) "Improving Organizational Information Security Strategy via Meso-Level Application of Situational Crime Prevention to the Risk Management Process," *Communications of the Association for Information Systems* (CAIS), (26:17), pp 329-358.
- 16. Clark, Jan Guynes, **Nicole Lang Beebe**, Karen Williams, Linda Shepherd (2009) "Security and Privacy Governance: Criteria for Systems Design," *Journal of Information Privacy and Security*, (5:4), pp 3-30.
- 17. **Beebe, Nicole Lang** and Jan Guynes Clark (2007) "A Discriminant Model for Predicting Hacker Behavior," *Journal of Information System Security (JISSEC)*, (3:3), pp 3-20.
- 18. Goles, Tim, Greg White, **Nicole Lang Beebe**, Alberto Dorantes, Barbara Hewitt (2006) "Moral Intensity and Ethical Decision-Making: A Contextual Extension," *The DATA BASE for Advances in Information Systems*, 37(2-3), pp 86-95.
- 19. **Beebe, Nicole Lang** and Jan Guynes Clark (2005) "A Hierarchical, Objectives-Based Framework for the Digital Investigations Process," *Digital Investigation*, (2:2), pp 146-166.

### **BOOK CHAPTERS (PEER-REVIEWED)**

- 1. **Beebe, Nicole Lang,** Lishu Liu, Zi Ye (2017) "Insider Threat Detection Using Time-Series Based Raw Disk Forensic Analysis," in *Advances in Digital Forensics XIII*, G. Peterson and S. Shenoi (eds.), Boston: Springer, pp. 149-167.
- 2. **Beebe, Nicole Lang**, Lishu Liu, Minghe Sun (2016) "Data Type Classification: Hierarchical Class-to-Type Modeling," in *Advances in Digital Forensics XII*, G. Peterson and S. Shenoi (eds.), Boston: Springer, pp 325-343.
- 3. **Beebe, Nicole Lang** (2009) "Digital Forensic Research: The Good, The Bad, and The Unaddressed," in *Advances in Digital Forensics V, G.* Peterson and S. Shenoi (eds.), Boston: Springer, pp 17-33.
- 4. **Beebe, Nicole Lang** and Glenn Dietrich (2007) "A New Process Model for Text String Searching," in *Advances in Digital Forensics III*, P. Craiger and S. Shenoi (eds.), Boston: Springer, pp 179-191.
- 5. **Beebe, Nicole Lang** and Jan Guynes Clark (2005) "Dealing with Terabyte Datasets in Digital Investigations," in: *Research Advances in Digital Forensics,* M. Pollitt and S. Shenoi (eds.), Norwell: Springer, pp. 3-16.

### **CONFERENCE PROCEEDINGS (PEER-REVIEWED)**

1. Aivazpour, Zahra and **Nicole Lang Beebe**, "Cyberbullying: Investigating the Roles of Power and Communication Medium," *Proceedings of the Twenty-fourth Americas Conference on Information Systems (AMCIS)*, New Orleans, Louisiana, August 16, 2018.

- 2. Mata, Nicholas, **Nicole Lang Beebe**, Kim-Kwang Raymond Choo, "Are Your Neighbors Swingers or Kinksters? Feeld App Forensic Analysis," *Proceedings of the 17<sup>th</sup> IEEE International Conference on Trust, Security and Privacy in Computing & Communications (IEEE TrustCom 2018)* New York, NY, July 31-Aug 3, 2018.
- 3. Rad, Paul, Mehdi Roopaei, **Nicole Lang Beebe,** Mehdi Shadaram, Yoris Au, "Al Thinking for Cloud Education Platform with Personalized Learning," *Proceedings of The 51<sup>st</sup> Annual Hawaii International Conference on System Sciences (HICSS), Big Island, Hawaii, January 3-6, 2018.*
- 4. Rad, Paul, Mehdi Roopaei, Arun Das, **Nicole Lang Beebe**, "DeceptionNet: Al Model for Encoding Deception Using Facial Micro-Expression," *Proceedings of the Secure Knowledge Management Workshop*, Tampa, FL, October 4-6, 2017.
- Maasberg, Michele, Nicole Lang Beebe, John Warren, Glenn Dietrich, "IT Sabotage: An Empirical Examination of High Risk Insiders Exhibiting Subclinical Psychopathic Traits," Proceedings of the 10th Annual SIGSEC Workshop on Information Security and Privacy, Pre-ICIS, Dublin, Ireland, December 10, 2016. (Best Paper Award)
- 6. Hicks, Chelsea, **Nicole Lang Beebe**, Brandi Haliscak, "Extending Web Mining to Digital Forensics Text Mining," *Proceedings of the Twenty-second Americas Conference on Information Systems (AMCIS)*, San Diego, California, August 10-14, 2016.
- 7. Maasberg, Michele, Myung Ko, **Nicole Lang Beebe**, "Exploring a Systematic Approach to Malware Threat Assessment," *Proceedings of The 49<sup>th</sup> Annual Hawaii International Conference on System Sciences (HICSS)*, Kauai, Hawaii, January 5-8, 2016.
- 8. Maasberg, Michele, John Warren, **Nicole Lang Beebe**, "No Fear: Investigating Psychopathy and Information Security Policy Compliance in Relation to Insider Threat," *Proceedings of IFIP WG8.11/WG11.13 Dewald Roode Information Security Workshop* at the University of Delaware, October 2-3, 2015.
- 9. Maasberg, Michele, John Warren, **Nicole Lang Beebe**, "The Dark Side of the Insider: Detecting the Insider Threat Through Examination of Dark Triad Personality Traits," *Proceedings of The 48<sup>th</sup> Annual Hawaii International Conference on System Sciences (HICSS)*, Kauai, Hawaii, January 5-8, 2015.
- 10. **Beebe, Nicole Lang** and Lishu Liu (2014) "Ranking Algorithms for Digital Forensic String Search Hits," *Proceedings of DFRWS2014, Digital Investigation* (11:S2), pp S124-S132. (Acceptance rate: 28.85%)
- 11. Garfinkel, Simson, **Nicole Lang Beebe**, Lishu Liu, Michele Maasberg (2013) "Detecting Threatening Insiders with Lightweight Media Forensics," *Proceedings of the 13th annual IEEE Conference on Technologies for Homeland Security, Boston, Massachusetts, November 12-14, 2013.*
- 12. Young, Diana K., **Nicole Lang Beebe**, Frederick R. Chang (2012) "Prospect Theory and Information Security Investment Decisions," *Proceedings of the Eighteenth Americas Conference on Information Systems (AMCIS)*, Seattle, Washington, August 2012.
- Beebe, Nicole Lang, Sonia Stacy, Dane Stuckey (2009) "Digital Forensic Implications of ZFS," Proceedings of DFRWS2009, Digital Investigation (6:S1), pp S99-S107. (Acceptance Rate: 36.59%)
- 14. **Beebe, Nicole Lang** and V. Srinivasan Rao (2009) "Examination of organizational information security strategy: A pilot study," *Proceedings of the Fifteenth Americas Conference on Information Systems (AMCIS)*, San Francisco, California, August 2009.
- 15. **Beebe, Nicole Lang** and Jan Guynes Clark (2007) "Digital Forensic Text String Searching: Improving Information Retrieval Effectiveness by Thematically Clustering Search Results," *Proceedings of DFRWS2007, Digital Investigation* (4:S1), pp S49-S54. (Acceptance Rate: 47.22%)
- 16. **Beebe, Nicole Lang**, and Jan Guynes Clark (2006) "Digital Forensics Curriculum Development: Identification of Knowledge Domains, Learning Objectives, and Core

- Concepts," *Proceedings of the Twelfth Americas Conference on Information Systems (AMCIS)*, Acapulco, Mexico, August 2006.
- 17. **Beebe, Nicole Lang** and Jan Guynes Clark (2006) "A Discriminant Model for Predicting Hacker Behavior," *Proceedings of the Twelfth Americas Conference on Information Systems (AMCIS)*, Acapulco, Mexico, August 2006.
- 18. **Beebe, Nicole Lang** and V. Srinivasan Rao (2005) "Using Situational Crime Prevention Theory to Explain the Effectiveness of Information Systems Security," *Proceedings of the SoftWars Conference*, Las Vegas, Nevada, December 11, 2005.
- 19. **Beebe, Nicole Lang** and Diane Walz (2005) "An Empirical Investigation of the Impact of Data Quality and its Antecedents on Data Warehousing Success," *Proceedings of the Eleventh Americas Conference on Information Systems (AMCIS),* Omaha, Nebraska, August 2005.
- 20. **Beebe, Nicole Lang** and Jan Guynes Clark (2004) "A Hierarchical, Objectives-Based Framework for the Digital Investigations Process," *Proceedings of DFRWS2004*, Linthicum, Maryland, August 2004 (early version of the paper appearing in *Digital Investigation*).
- 21. **Beebe, Nicole Lang**, Roy Calvo, V. Srinivasan Rao (alphabetical ordering) (2004) "Web Services Security: Proposed Model for Content Delivery Assurance in a Low Trust Scenario," *Proceedings of the Tenth Americas Conference on Information Systems (AMCIS)*, New York, New York, August 2004.
- 22. Clark, Jan Guynes, Andrew G. Kotulic, **Nicole Lang Beebe** (2004) "Integrating Security and Privacy Issues in System Design," *Proceedings of the Sixth International Conference on Enterprise Information Systems*, Porto, Portugal, April 2004.

#### MANUSCRIPTS UNDER REVIEW

- 1. Valecha, Rohit, Elaine Tavares, Nicole Lang Beebe, "The Impact of Cultural Differences on Self-Disclosure Behavior on Facebook: A Communication Privacy Management Approach," submitted to *Journal of the Association of Information Systems (JAIS)* (under first review).
- 2. Aivazpour, Zahra, Nicole Lang Beebe, "The Impact of Power Imbalance on Cyberbullying: The Role of Bystander Intervention," *submitted to ICIS 2020* (under first review).

### **MANUSCRIPTS IN-PROGRESS**

#### Malware

- 1. "Density Based Outlier Detection of Malware Data" (Williams, Beebe, Ko)
- 2. "Static Binary Analysis of Import Table Function Calls for Malware Behavioral Classification" (Beebe, Maasberg, Munos, Bole)

#### **Digital Forensics**

- 3. "Analysis of Sampling Rates for Maximum Accuracy and Reliability of Storage Profiles" (Beebe, Maasberg, Hicks)
- 4. "Not All N-Grams are Created Equal in Data Type Classification" (Beebe, Liu, Ye)
- 5. "Meta-Analysis of Data/Type Classification Research" (Beebe)
- 6. "Digital Forensic Stoplists: Windows & Linux operating systems" (Beebe, Carpenter, Knoell)

### **Insider Threat**

- 7. "Beyond Malicious Intent: An Empirical Study of Insider Cyber Sabotage Based on the Theory of Revenge" (Maasberg, Beebe, Dietrich, Warren, Krasikova)
- 8. "It's My Nature: Investigating the Influence of Biological Individual Differences on Malicious IT Fraud" (Luse, Maasberg, Beebe)
- 9. "Understanding Antecedents of Insider Sabotage: A Social and Self Control Perspective." (Maasberg, Ko, Miller, Beebe, Warren)
- 10. "A Graph-theoretic Perspective to Combat Insider Threats." (Beebe, Maasberg)
- 11. "Detection of Hostile Insiders Using Outlier Detection Methods." (Ko, Beebe, Ko)

### Behavioral Cybersecurity & Privacy

- 12. "Trust No More The Influences of Skepticism in eWOM" (Zhang, Ko, Beebe)
- 13. "Self-Disclosure Behavior on Facebook: A Comparative Privacy Study of American and Brazilian Users" (Tavares, Beebe, Valecha)

#### **FUNDED GRANTS**

- 1. Principle Investigator, "Cyber Threat Analytic Modeling," \$223,500, Raytheon, 15 August 2019 31 July 2020 (Research)
- 2. Principle Investigator, "Malware Propagation Modeling," \$149,000, LGS Innovations, 15 December 2018 30 November 2020 (Research)
- 3. Co-Investigator, "College Crime Victimization Survey: Examining Traditional and Cybervictimization among College Students at a Hispanic Serving Institution," \$20,000, UTSA Vice President for Research, 1 Sep 2018 31 Aug 2019 (Research)
- 4. Principle Investigator, "IoT Security & Forensics Lab," \$86,010 (\$5K UTSA matching funds), Texas National Security Network, 1 Jun 2018 31 May 2019 (Research)
- 5. Principle Investigator, "Insider Threat Detection Research Initiative Risk-based Document Profiling and Anomaly Detection," \$75,000, Forcepoint, LLC 15 Sep 2017 31 Dec 2018 (Research)
- 6. Co-Principal Investigator, "CREST Center for Security and Privacy Enhanced Cloud Computing," \$5,000,000, National Science Foundation, 1 Sep 2017 31 Aug 2022 (Research & Education)
- 7. Co-Principal Investigator, "CyberCorps Scholarship for Service," \$3,737,836, National Science Foundation, 1 Oct 2016 30 Sep 2021 (Education)
- 8. Principle Investigator, "Lightweight Media Forensics for Insider Threat Detection Follow-On," \$649,172 contract award from the Department of Homeland Security, 1 Jul 2016 30 Dec 2018 (Research)
- 9. Co-Investigator, "Analysis and Training for the Defense of Biological and Digital Threats," \$895,237 grant award from the Department of Homeland Security, 30 Sep 2014 30 Sep 2020 (Research & Education)
- 10. Principal Investigator, "Vector: Insider Threat Identification," \$123,871 contract sub-award from Def-Logix, Inc., part of \$1.649M award from the DoD Information Systems Agency, 29 Sep 2014 29 Jun 2016 (Research)
- 11. Principle Investigator, "Relevancy Rank Algorithm for Digital Forensic String Search Output," \$10,000 grant award from UTSA Technology Proof-of-Principle (Tech POP) program, 1 Sep 2014 31 Aug 2015 (Research)
- 12. Principal Investigator, "Detecting Threatening Insiders with Lightweight Media Forensics," \$371,170 grant sub-award from cooperative agreement #N00244-13-2-004 with Naval Postgraduate School, under \$1.4M award from Department of Homeland Security (DHS) BAA-11-02, 15 Apr 2013 30 Sep 2014 (Research)

- 13. Principal Investigator, "Advanced Research in Data Type Classification," \$205,197 grant award #N00244-13-1-0027 under Naval Postgraduate School BAA-12-004, 1 Mar 2013 30 Sep 2014 (Research)
- 14. Principal Investigator, "Advanced Digital Forensics String Search Capability," \$279,311 grant award #N00244-11-1-0011 under Naval Postgraduate School BAA-09-003, 21 Dec 2010 31 May 2013 (Research)

#### **INVITED LECTURES & PRESENTATIONS**

- 1. "Finding Funding and Research Opportunities," CREWE (Cyber Research for Empowering Women Experimenters), Google sponsored workshop at Louisiana Technical University, February 25, 2020
- 2. "Women in Artificial Intelligence (panelist)," SA Women in Machine Learning & Data Science, Trinity University, August 28, 2019
- 3. "Cyber Center: Accelerating our National Cybersecurity Strategy (panelist)," Accenture, San Antonio, April 17, 2019.
- 4. "Cybersecurity Academic Excellence and R&D (panelist)," The Philosophical Society of Texas, February 3, 2018.
- 5. "Lightweight Media Forensics for Insider Threat Detection," 2017 Cyber Security R&D Showcase & Technical Workshop, US. Department of Homeland Security, July 12, 2017.
- 6. "Statistics Meets Digital Forensics to Detect Insider Threats," The 4th Annual Michigan State University Interdisciplinary Conference on Cybercrime, March 2, 2017.
- 7. "Cyber Hunting," Keynote Address, U.S. Chamber of Commerce 5<sup>th</sup> Annual Cybersecurity Summit, June 28, 2016.
- 8. "Advancements in Computational Digital Forensics," The Honeynet Project annual conference, May 11, 2016.
- 9. "A Look at the Current Cyber Threat Landscape (and how it can affect the food industry)," Food Protection and Defense Institute, Food Protection Webinar Series, April 1, 2016.
- 10. "Digital Forensics In and Of the Cloud: Challenges and Issues" Texas FreshAIR Big Data & Data Analytics Conference, March 30, 2016.
- 11. "Emerging Techniques in Digital Forensics: Insiders, Malware, and Tools," 2015 CAATs Conference: Insight & Impact—Using Technology to Look Deeper and Work Smarter," U.S. Department of Housing and Urban Development, Office of the Inspector General, September 2, 2015
- 12. "Advancements in Computational Digital Forensics," USAA TechX2015, April 30, 2015.
- 13. "SCEADAN: Systematic Classification Engine for Advanced Data ANalysis," Open Source Digital Forensics Conference (OSDFCON), November 5, 2014
- 14. "Discovering the Digital Footprints You Leave Behind (and implications for managers)," Alamo Chapter of Credit Unions, Monthly Meeting, November 21, 2013
- 15. "SIFTER: Search Indexes For Text Evidence Relevantly," Open Source Digital Forensics Conference (OSDFCON), November 5, 2013
- 16. "Big Data Forensics," USAA TechX2013, October 24, 2013
- 17. "Your Business and the Digital Paradigm: Digital Forensics Readiness & Response," North San Antonio Chamber of Commerce, "On the Horizon" speaker series, Oct 23, 2013
- 18. "Digital Forensics: Detecting Threatening Insiders," BITS (The Technology Policy Division of the Financial Services Roundtable) Research & Development Special Interest Group, June 7, 2013
- 19. "Digital Forensic Implications of Windows 7," Information Systems Security Association (ISSA), Alamo Chapter Meeting, November 15, 2011
- 20. "Evidence Challenges Created by Windows 7," 1st Annual Legal Technology Leadership Summit, Amelia Island, FL, September 8, 2011

- 21. "A Call for More Analytically Advanced String Search Approaches in Digital Forensics," 2<sup>nd</sup> Annual Northeast Forensics Exchange (NeFX), Washington D.C., September 13, 2010
- 22. "Digital Forensics of Windows 7," Risk & Security Summit, Sponsored by Ernst & Young and The University of Texas at San Antonio, February 8, 2010
- 23. "Great Debate Series: Cyber Security," Public Debate Sponsored by the Texas Lyceum, San Antonio, Texas, February 5, 2010
- 24. "Digital Forensic Implications of ZFS," DFRWS2009, August 18, 2009
- 25. "Examination of Organizational Information Security: A Pilot Study," Fifteenth Americas Conference on Information Systems, San Francisco, California, August 8, 2009
- 26. "Digital Forensics Research: The Good, the Bad, and the Unaddressed," Keynote Address, Fifth Annual IFIP WG 11.9 International Conference on Digital Forensics, Orlando, FL, Jan 27, 2009
- 27. "Discovering the Digital Footprints You Leave Behind," UTSA Lecture Series for National Cyber Security Awareness Month, October 23, 2008
- 28. "Frontiers in Science & Technology A Digital Forensics Demonstration" for the UTSA Honors College Technology Conference, September 19, 2008
- 29. "Discovering the Digital Footprints You Leave Behind," UTSA Lecture Series for National Cyber Security Awareness Month, October 16, 2007
- 30. "Digital Forensic Text String Searching: Improving Information Retrieval Effectiveness by Thematically Clustering Search Results," DFRWS'07, August 13, 2007
- 31. "A Primer and Update on Digital Evidence" (workshop co-presenter), 59<sup>th</sup> Annual Meeting of the American Academy of Forensic Sciences, February 19, 2007
- 32. "A New Process Model for Text String Searching," Third Annual IFIP WG 11.9 International Conference on Digital Forensics, January 30, 2007
- 33. "Data Mining and Digital Forensics," Florida Dept. of Law Enforcement, March 31, 2006
- 34. "Using Situational Crime Prevention Theory to Explain the Effectiveness of Information Systems Security," SoftWars Conference, December 11, 2005
- 35. "CISSP Preparation Course: Law, Investigations, and Ethics," Information Systems Security Association (ISS), Alamo Chapter, November 12, 2005
- 36. "Approaching the Terabyte Dataset in Digital Investigations" (modified), Digital Forensics Working Group (DFWG) Technology Transfer Workshop, June 9, 2005
- 37. "Cell Phone Forensics," Computer Crime Investigators Working Group, March 23, 2005
- 38. "Approaching the Terabyte Dataset in Digital Investigations," First Annual IFIP WG 11.9 International Conference on Digital Forensics, February 14, 2005
- 39. "CISSP Preparation Course: Law, Investigations, and Ethics," Information Systems Security Association (ISSA), Alamo Chapter, November 13, 2004
- 40. "Advanced Digital Forensic Analysis: Metadata," Digital Forensics Seminar for Law Enforcement, University of Texas at San Antonio, August 19, 2004
- 41. "A Hierarchical, Objectives-Based Framework for the Digital Investigations Process," Digital Forensics Research Workshop (DFRWS) 2004, Linthicum, MD, August 11, 2004
- 42. "Ethical Decision Making in an IT Environment Preliminary Results," Information Systems Security Association (ISSA), Alamo Chapter, March 16, 2004
- 43. "CISSP Preparation Course: Security Management Practices," Information Systems Security Association (ISSA), Alamo Chapter, September 20, 2003
- 44. "CISSP Preparation Course: Law, Investigations, and Ethics," Information Systems Security Association (ISSA), Alamo Chapter, September 20, 2003
- 45. "Solving Cyber Crimes with Federal Law Enforcement," Texas Security Symposium, Center for Infrastructure Assurance and Security, San Antonio, August 8, 2003
- 46. "Digital Forensics," Information Systems Security Association (ISSA), Alamo Chapter, Workshop, February 7, 2003

- 47. "Computer Forensics Policy," Information Systems Security Association (ISSA), Alamo Chapter, Membership Meeting, January 21, 2003
- 48. "Computer Forensics The Business Case," Information Systems Security Association (ISSA), Alamo Chapter, Membership Meeting, August 21, 2003
- 49. "CISSP Preparation Course: Law, Investigations, and Ethics," Information Systems Security Association (ISSA), Alamo Chapter, October 8, 2002
- 50. "Securing Wireless Technology," Information Systems Security Association (ISSA) Alamo Chapter, Annual Symposium, May 03, 2002
- 51. "Computer Forensics The Business Case," ASIS International, San Antonio Chapter, Membership Meeting, April 2, 2002
- 52. "Cyber Forensics," Information Systems Security Association, (ISSA) Alamo Chapter Annual Symposium, May 21, 2001

### **SPECIAL AWARDS & HONORS**

- Endowed 1969 Commemorative Award for Overall Faculty Excellence, 2019 (UTSA College of Business)
- UTSA Nominee for Regents' Outstanding Teaching Award, 2015
- UTSA College of Business Teaching Honor Roll, High Honors, Fall 2014
- UTSA Nominee for Minnie Stevens Piper Teaching Award, 2014
- DFRWS International Digital Forensics Challenge, 1st Place, 2012
- HEB Dissertation Fellowship, 2007
- University of Texas at San Antonio Fellowship, 2003-2007
- Top Graduate, 1997, Georgia State Univ., College of Health & Human Sciences
- Distinguished Graduate, 1995, Michigan Technological University, Air Force ROTC
- President's Award, 1995, Michigan Technological University
- Miscellaneous military awards and decorations (1995-Present)