Jean Gourd

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Brief Biography

Dr. Gourd is Chair of Computer Science and Professor of Computer Science at The University of Tampa. His research interests are in the areas of computer science curriculum development (including pedagogy), project-based learning, cyber security, distributed computing, software engineering, and artificial intelligence. He has been involved in many research projects with various government and industry partners. His current research areas of interest include:

- Computer science education (including curriculum development)
- Hands-on, projects-based learning

Specifically, this includes topics such as:

- Computer science curriculum development in higher education, both pedagogical and technical, with a hands-on, project-based focus
- Computer science curriculum development at the primary and secondary levels, mainly for the purpose of increasing computational thinking experiences to cultivate thinkers and interest in the pursuit of STEM disciplines in higher education and industry

Dr. Gourd has varied personal interests that include tinkering with electronics, French pastry and artisan bread baking, cooking, homebrewing a variety of styles of beer (IPAs and Belgian beers being the current favorites), gardening (especially growing herbs, peppers, and tomatoes), woodworking, performing magic tricks and illusions, reading novels and fascinating non-fiction, playing the guitar, sampling wines from around the world with a focus on those from the Bordeaux, Burgundy, and Rhone regions of France, and indulging in the occasional cigar (current favorites include Oliva Serie G, Romeo y Julieta Vintage, Montecristo Classic, and Montecristo Habana 2000).

Originally born in Montreal, Canada, Dr. Gourd emigrated to the U.S. in 1983 and became a naturalized U.S. citizen in 2005.

Education

- 2007: Ph.D., Computational Science, University of Southern Mississippi, Hattiesburg, MS, Thesis: *API-S Calculus: Formal Modeling for Secure Mobile Intelligent Agent Systems*

- 2004, B.S., Computer Science (*Summa Cum Laude*), University of Southern Mississippi, Hattiesburg, MS, Thesis: *Smart Server: Concepts and Applications*
- 1995: A.A., Business Administration and Management, Santa Fe Community College, Gainesville, FL

Academic Experience

- 2020–present: Professor, Computer Science, University of Tampa, Tampa, FL
- 2020–present: Chair, Computer Science, University of Tampa, Tampa, FL
- 2014–2020: Associate Professor, Computer Science and Cyber Engineering, Louisiana Tech University, Ruston, LA
- 2013–2020: Program Chair, Computer Science, Louisiana Tech University, Ruston, LA
- 2012–2014: Assistant Professor, Computer Science and Cyber Engineering, Louisiana Tech University, Ruston, LA
- 2012–2013: Interim Program Chair, Cyber Engineering, Louisiana Tech University, Ruston, LA
- 2008–2020: Member, Center for Secure Cyberspace, Louisiana Tech University, Ruston, LA
- 2008–2012: Assistant Professor, Computer Science, Louisiana Tech University, Ruston, LA
- 2007–2008: Visiting Assistant Professor, Computer Science, University of Southern Mississippi, Hattiesburg, MS
- 2004–2007: Research Assistant, Database Research Lab for Intelligent Agents, University of Southern Mississippi, Hattiesburg, MS
- 2004–2007: Research Assistant, Computational Research Facility for Defense Data Integration, University of Southern Mississippi, Hattiesburg, MS
- 2002–2004: Teaching Assistant, Computer Science, University of Southern Mississippi, Hattiesburg, MS

Courses taught

- The Science of Computing
- Introduction to Cyber Security
- Computer Network Security
- Reverse Engineering (software)

- Access Control Logic and Covert Channels
- Applied Cryptography
- Artificial Intelligence
- Compiler Design
- Systems Programming
- Data Structures
- Advanced Data Structures and Algorithms
- Computer Programming with Android
- Theory of Programming Languages
- Object Oriented Programming
- Overview of Computer Science
- Introduction to Computer Programming
- Intermediate Computer Programming
- Software Design and Engineering
- Programming Languages
- Senior Capstone
- Foundations of Software Development
- Programming and Software Development
- Computer Architecture
- Advanced Computer Architecture
- Embedded Microcomputer Design

Research

Funded grants

- 12/2018: "cyber$_{\text{LAB}}$: Networking and Applied Cyber Security Lab," Louisiana Tech Student Technology Fee Board, $50,000; PI
- 06/2018–05/2020: "A Modernized Framework for Air Force Supply Chain Management Incorporating Mobile Devices," US Department of Defense/US Air Force, $1,280,678; PI

- 01/2018–12/2022: "SFS@LaTech: Cyber Engineers for our Future," National Science Foundation, $2,816,111; Co-PI
- 06/2017–05/2020: "Megaprocessor: Louisiana Tech's Room-sized CPU Replica," Louisiana Tech University/Louisiana Economic Development, $50,000; PI
- 09/2016–08/2018: "High School A.P. Computer Science Curriculum (extension of grant)," Cyber Innovation Center/US Department of Homeland Security, $32,130; PI
- 09/2015–08/2016: "High School A.P. Computer Science Curriculum (extension of grant)," Cyber Innovation Center/US Department of Homeland Security, $151,692; PI
- 02/2015–08/2015: "High School A.P. Computer Science Curriculum," Cyber Innovation Center/US Department of Homeland Security, $37,443; PI
- 04/2014–09/2014: "Research-Intensive Internship in Cyber Engineering," Cyber Innovation Center/US Department of Homeland Security, $240,000; Co-PI
- 11/2013–12/2014: "NCWIT Extension Services Mini-Grant," National Science Foundation, $8,000; Co-PI
- 09/2013–09/2018: "Extraction of Social Context via Synthetic Pollination for Information Tracking and Control," Air Force Research Lab (Minority Leaders Program), $175,000; PI
- 11/2012–11/2013: "A Cryptologic Method for Preventing Unauthorized Outbound Network Traffic via Authenticating Network Devices," Air Force Research Lab (Minority Leaders Program), $75,000; PI
- 09/2012–08/2013: "Shapeshifter: Dynamic Network Polymorphism," Air Force Office of Scientific Research; *This research was funded as part of a larger grant and provided two months of summer salary and a Ph.D. student.*
- 12/2011: "Computer Networking Lab with Cisco Routers and Switches," Louisiana Tech University College of Engineering and Science, $20,000; PI
- 12/2011: "Android-based Cell Phones for Introductory CS and Cyber Engineering," Louisiana Tech University College of Engineering and Science, $7,500; PI
- 12/2011: "cyber$_{\text{LAB}}$: Applied Cyber Security, Digital Forensics and Networking Lab," Louisiana Tech University Student Technology Fee Board, $80,000; PI
- 06/2010–06/2014: "Genetically Engineered Tamper-Resistant Intelligent Agents," Air Force Office of Scientific Research, $48,607; PI
- 06/2010–06/2014: "FPGA-Based Net Framework with Embedded Agents as Cyber Attack Detectors," Air Force Office of Scientific Research, $64,030; PI
- 06/2010–06/2014: "LA Tech Proposal for the Cybersecurity Research Program at the Cyberspace Research Laboratory," Air Force Office of Scientific Research, $1,189,458; Co-PI

- 06/2009: "Cyberspace Research Laboratory," Air Force Office of Scientific Research, $2,840,000; *note: participated in proposal preparation in a non-PI capacity*
- 04/2009: "DINER: Distributed Information Discovery Laboratory," Louisiana Board of Regents (Enhancement), $50,156; Co-PI
- 01/2005–05/2009: "Data Conflation and Integration with Intelligent Agents Support," US Army Space Missile Defense Command, $140,000; Co-PI

Other proposals

- 09/2019–08/2021: "Demystifying CT: Thinking Deeply, Thinking Well," National Science Foundation, $298,832; PI
- 09/2016–08/2017: "Scalable Cyber Security Challenges for STEM Education," Cyber Innovation Center/US Department of Homeland Security, $96,400; PI
- 08/2016–08/2018: "U-Discovery – Computing Across the Curriculum," National Science Foundation, $1,249,422; Co-PI
- 01/2015: "Louisiana Tech's Center of Academic Excellence, Cyber Operations," National Security Agency, $0; Co-PI
- 09/2015–09/2020: "SFS@LaTech: Louisiana Tech University's Scholarship for Service Program," National Science Foundation, $2,096,891; Co-PI
- 09/2014–09/2019: "Cyber-ICE: Louisiana Tech University's IC Center for Academic Excellence in National Security Studies," Office of the Director of National Intelligence, $1,652,985; Co-PI
- 09/2014–09/2019: "SFS@LaTech: Louisiana Tech University's Scholarship for Service Program," National Science Foundation, $2,762,413; Co-PI
- 06/2014–04/2015: "Biologically Inspired Threat Identification and Mitigation in MANETs," US Department of Defense/US Army (SBIR), $45,000; PI
- 01/2014: "Louisiana Tech's Center of Academic Excellence, Cyber Operations," National Security Agency, $0; PI
- 11/2012: "CITEST: Louisiana Tech's Cyber ITEST Program," National Science Foundation, $1,198,377; Co-PI
- 11/2012: "General Purpose Solution Optimization via Distributed Artificial Life of Agents," Louisiana Board of Regents (Research Competitiveness Subprogram), $149,818; PI
- 10/2012: "SFS@LaTech: Louisiana Tech University's Scholarship for Service Program," National Science Foundation, $4,155,363; Co-PI
- 09/2012: "FAST-VM: Detecting Complex High Order State Changes Over Time for APT Management," US Department of Defense/Office of the Secretary of Defense (SBIR), $45,000; PI

- 09/2012–08/2013: "Shapeshifter: Dynamic Network Polymorphism," Air Force Office of Scientific Research, ∼$41,000; PI
- 06/2012: "Secure Mobile Interfaces for Business systems," US Department of Defense/US Navy (SBIR), $36,611; PI
- 05/2012: "An Immersive, Projects-Based Introductory Curriculum for the First Cyber Engineering Program in the Nation," National Science Foundation, $91,110; PI
- 04/2012: "Cyber-CaB: Louisiana Tech University's Federal Cyber Capacity Building Program," National Science Foundation, $895,503; Co-PI
- 12/2011: "Agent-Based Cyber Security in SCADA Systems," US Department of Homeland Security, $68,223; PI
- 12/2011: "A Cryptologic Method for Preventing Unauthorized Outbound Network Traffic via Authenticating Network Devices," Defense Advanced Research Projects Agency, $131,526; PI
- 11/2011: "Sensitive Information Accountability Among Physically Segregated Data Networks," Defense Advanced Research Projects Agency, $59,906; PI
- 03/2011: "The Spicule Model: A Visual Malware Identification and Classification Method," US Department of Defense/US Army, $31,612; PI
- 03/2011: "BANDIT: Biology-inspired Agent-based Network Detection of Insider Threats," US Department of Homeland Security, $561,293; PI
- 01/2011: "ABSCoND: Agent-Based extraction of Social Context from Network Data," Defense Advanced Research Projects Agency, $41,801; PI
- 03/2010: "Exposing the Netprint," Defense Advanced Research Projects Agency, $1,565,738; Co-PI
- 02/2010: "Virtual Organization for Collaboration and Advancement of Learning Institutes (VOCAL)," National Science Foundation, $431,470; PI
- 01/2010: "Mobile Agent Framework for Intelligent Attack Response," US Army Research, Development, and Engineering Command, $36,000; PI
- 01/2010: "CYEN: A Roadmap to Creating and Deploying Cyber Engineering at Louisiana Tech University," US Department of Homeland Security, $69,484; PI
- 11/2009: "Identifying Vulnerabilities from Binary Executable Code Characteristics," Intelligence Advanced Research Projects Activity, $904,712; PI
- 11/2009: "Contained Automated Software Environment," Intelligence Advanced Research Projects Activity, $1,280,618; PI
- 09/2008: "DECIDE: Decision Engine for Cyber Infrastructure of Distributed Agents," National Science Foundation, $685,648; Co-PI

- 10/2006: "Applying Fuzzy Logic to the Modeling and Prediction of the Effect of Global Pollution on the Gulf Coast," National Aeronautics and Space Administration, $264,924; *note: participated in proposal preparation in a non-PI capacity*

- 06/2006: "Geospatial Web Services Portal for Integration of GIS and Enhancement of Emergency Response," US Department of Homeland Security, $750,000; *note: participated in proposal preparation in a non-PI capacity*

- 04/2006: "Net-Centric Web Services Brokering System for Geospatial Information Discovery, Analysis and Reporting utilizing Intelligent Mobile Agents," National Geospatial-Inteligence Agency, $449,926; *note: participated in proposal preparation in a non-PI capacity*

- 10/2005: "Rapid Prototyping Support and Operational Transition Assessment Utilizing a Grid Computing Environment," National Aeronautics and Space Administration, $773,044; *note: participated in proposal preparation in a non-PI capacity*

Patents and Reports of Invention

- A. AlQahtani and J. Gourd. Shahrah 0E2FA: Shahrah Zero Effort Two Factor Authentication. **In preparation.**

Publications

Currently in preparation

- J. Gourd, A. Kiremire, K. Cherry. Living *with* Cyber: A hands-on, projects-based freshman computing curriculum.

Articles in peer-reviewed journals

- H. Alamleh and J. Gourd. Unobtrusive location-based access control utilizing existing IEEE 802.11 infrastructure. *Mobile Networks and Applications*. 2020. **Under review.**

- A. AlQahtani, H. Alamleh, and J. Gourd. 0EISUA: Zero effort indoor secure user authentication. *IEEE Access*, 8(1):79069–79078, 2020. 10.1109/ACCESS.2020.2990604.

- V. Strimbu, V. Strimbu, W. Palmer, and J. Gourd. Comparison of nine image classification methods on landsat 7 imagery. *Analele Universitatii din Oradea – Seria Geografie*, 24(2):143–157, 2014.

- J. Gourd, N. Killeen, D. Stonecypher, N. Lapp, M. Sop, and J. Kackley. Fpga-based multi-agent system for network security. *The Journal of Management and Engineering Integration*, 4(1), 2011.

- J. Gourd and D. Ali. A calculus for modeling security and mobility in multi-agent systems. *The Journal of Management and Engineering Integration*, 3(2):39–47, 2010.

- J. Kackley and J. Gourd. A flow direction algorithm for geometry-based networks utilizing a prioritized bfs method. *The Journal of Management and Engineering Integration*, 1(1):115–119, 2008.

- J. Kackley, M. Gambrell, and J. Gourd. I3P: A protocol for increasing reliability and responsiveness in massively multiplayer games. *Journal of Advanced Computational Intelligence and Intelligent Informatics*, 12(2):142–149, 2008.

- J. Gourd, M. Cobb, P. Wahjudi, and D. Ali. Smart server: Concepts and applications. *International Journal of Intelligent Systems*, 22(10):1139–1154, 2007.

Book chapters

- J. Gourd and G. Vert. Hyper distribution of contextual information. In *Introduction to Contextual Processing: Theory and Applications*, pages 115–184. Taylor and Francis, 2011.

Published books

- J. Gourd and A. Kiremire. The Science of Computing: Living *with* Cyber. Self-published, 2016–2020.

Peer-reviewed papers presented at conferences

- A. AlQahtani, H. Alamleh, and J. Gourd. BF2FA: Beacon frame two factor authentication. In *IEEE 18th Annual Consumer Communications and Networking (CCNC)*, Virtual Conference, January 2021. **Under Review.**

- A. AlQahtani, H. Alamleh, J. Gourd, and H. Mugasa. 0EI2FA: Zero effort indoor two factor authentication. In *14th International Conference on Innovations in Information Technology (IIT'20)*, Virtual Conference, November 2020. **Under Review.**

- A. AlQahtani and J. Gourd. 0E2FAUE: Zero Effort Two Factor Authentication Based On User's Environment. In *IEEE-APS Topical Conference on Antennas and Propagation in Wireless Communications (APWC 2020)*, Honolulu, Hawaii, USA, August 2020. **Accepted.**

- A. AlQahtani, H. Alamleh, J. Gourd, and H. Alnuhait. TS2FA: Trilateration System Two Factor Authentication. In *2020 3rd International Conference on Computer Applications and Information Security (ICCAIS)*, Riyadh, Saudi Arabia, March 2020.

- H. Alamleh and J. Gourd. A weighting system for building RSS maps by crowdsourcing data from smartphones. In *2020 International Conference on Computing, Networking and Communications (ICNC): Social Computing and Semantic Data Mining*, Big Island, HI, February 2020.

- H. Alamleh, A. AlQahtani, and J. Gourd. Wireless authentication using variable transmission power. In the *93rd Annual Meeting of the Louisiana Academy of Science*, Alexandria, LA, March 2019.

- G. Vert, J. Gourd, and S.S. Iyengar. Application of context to fast contextually based spatial authentication utilizing the spicule and spatial autocorrelation. In *CRW'10: 3rd Cyberspace Research Workshop*, Shreveport, LA, November 2010.

- J. Kackley, J. Jacobs, P. Wahjudi, and J. Gourd. Pollination in maids: Detecting and combating passive intrusions in a multi-agent system. In *CRW'10: 3rd Cyberspace Research Workshop*, Shreveport, LA, November 2010.

- J. Gourd and G. Vert. Hyper distribution of contextual information: Solving the unknown producer-unknown consumer (up-uc) problem. In *IKE*, pages 336–342, Las Vegas, NV, July 2010.

- J. Kackley, J. Gourd, and M. Gambrell. Increasing p2p gameplay performance utilizing i3p. In *GameOn-NA'09: 5th International North American Conference on Intelligent Games and Simulation*, Atlanta, GA, August 2009.

- G. Vert, J. Gourd, and S.S. Iyengar. Integration of the visual authentication of spatial data with spatial-temporal class taxonomies for advanced spatial authentication modeling to create pretty good security. In *Proceedings of the 2nd Cyberspace Research Workshop*, Shreveport, LA, June 2009.

- J. Kackley, M. Gambrell, and J. Gourd. I3P: A protocol for increasing reliability and responsiveness in massively multiplayer games. In *International Symposium on Intelligence Techniques in Computer Games and Simulations*, Shiga, Japan, March 2007.

Invited papers presented at conferences

- J. Gourd. Cyber Storm: The culmination of an undergraduate course in cyber security. In *Security and Management*, pages 300–306, Las Vegas, NV, July 2010.

Non-reviewed papers presented at conferences

- J. Gourd and D. Ali. A calculus for modeling security and mobility in multi-agent systems. In *Proceedings of the 2010 International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL, March 2010.

- J. Gourd. A web services based approach to mobile agent migration and security. In *Proceedings of the 2009 International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL, March 2009.

- J. Gourd and D. Ali. A weighted relative contribution algorithm for grid-based analysis of heterogeneous geospatial data. In *Proceedings of the 2008 International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL, March 2008.

- J. Kackley and J. Gourd. A flow direction algorithm for geometry-based networks utilizing a prioritized bfs method. In *Proceedings of the 2008 International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL, March 2008.

- P. Wahjudi, J. Gourd, J. Kackley, and D. Ali. Applying fuzzy logic to the modeling and prediction of the effect of global pollution on the gulf coast. In *Proceedings of the 2007 International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL, March 2007.

- D. Butler, P. Wahjudi, J. Gourd, and D. Ali. Multilevel computational teaching techniques utilizing the parallax boe-bot. In *Proceedings of the 2007 International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL, March 2007.

- G. Coburn, J. Gourd, and D. Ali. Multi-agent confidence framework for heterogeneous data fusion. In *Proceedings of the 2007 International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL, March 2007.

- J. Kackley, M. Johnson, K. Yang, P. Wahjudi, J. Gourd, and D. Ali. Nationally organized distributed database system for evacuation planning management. In *Proceedings of the 2007 International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL, March 2007.

- I. Gang, D. Dobson, J. Gourd, and D. Ali. Parallel implementation and analysis of mandelbrot set construction. In *Proceedings of the 2007 International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL, March 2007.

- J. Kackley, G. Coburn, J. Gourd, and D. Ali. Parallel implementation of concurrently executing petri nets. In *Proceedings of the 2007 International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL, March 2007.

- J. Gourd, P. Wahjudi, and L. Guo. Development, testing, and simulation of a smart phone card prototype. In *Proceedings of the 2006 International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL, March 2006.

- J. Gourd, J. Stone, M. Bennett, and D. Ali. Examining contraflow in evacuating a major city. In *Proceedings of the 2006 International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL, March 2006.

- J. Gourd and C. Burgess. Development and analysis of the parallelization of a sequential integration-by-parts algorithm using petri nets. In *Proceedings of the 2006 International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL, March 2006.

- J. Gourd, J. Heath, P. Wahjudi, D. Ali, and M. Cobb. Smart server: Integrating intelligence into a web server. In *Proceedings of the 2004 International Conference on Industry, Engineering, and Management Systems*, Cocoa Beach, FL, March 2004.

Presentations

Invited talks

- 01/2020: *A Vision for an Innovative Baccalaureate Program in Computer Science*, University of Tampa, Tampa, FL

- 09/2019: *Computer Science and Cyber Engineering PSA*, Louisiana Tech University TECHniques for Success, Ruston, LA
- 01/2018: *Cyber Storm: Hacking Our Way to Cyber Security Awareness*, Sigma Xi Science Cafe, Ruston, LA
- 04/2017: *Cyberspace*, Louisiana Tech University Engineering and Science Day (Keynote), Ruston, LA
- 11/2013: *Cyber Storm: The Culmination of an Undergraduate Cyber Security Course*, BSidesJackson 2013 Cyber Security Conference, Jackson, MS
- 11/2012: *Cyber Storm: The Culmination of an Undergraduate Course in Cyber Security*, Shaping the Future of Cybersecurity Education Workshop, Gaithersburg, MD
- 11/2011: *A Competitive Approach to Raising Future Cyber Citizens*, Cyber Engineering Research Conference, Shreveport, LA
- 08/2011: *Cyber Storm*, FBI Infragard, Baton Rouge, LA
- 12/2010: *Cyberspace?*, Ruston Kiwanis, Ruston, LA
- 10/2010: *On the State of Cyber Security*, Northwestern State University, Natchitoches, LA
- 04/2010: *On Raising Awareness of and Addressing Cyber Security Issues*, Seminar in Computational Sciences, University of Southern Mississippi, Hattiesburg, MS
- 03/2010: *In Preparation for the Ostensible "Cyber Storm"*, Cyber Innovation Center Member Luncheon, Shreveport, LA
- 01/2009: *API-S Calculus: Formal Modeling for Secure Mobile Intelligent Agent Systems*, Center for Secure Cyberspace, Louisiana Tech University, Ruston, LA
- 11/2008: *Cyber Security: Is it Attainable?*, Seminar in Computational Sciences, University of Southern Mississippi, Hattiesburg, MS
- 09/2008: *Mobile Intelligent Agents: A Primer*, Center for Secure Cyberspace, Louisiana Tech University, Ruston, LA
- 02/2007: *Towards the Modeling and Analysis of the Security of Mobile Intelligent Agents*, Seminar in Computational Sciences, University of Southern Mississippi, Hattiesburg, MS
- 02/2007: *Intelligent Machines: On Motivating Soft Computing Concepts*, Seminar in Computational Sciences, University of Southern Mississippi, Hattiesburg, MS
- 01/2007: *Intelligent Machines: Magic or Trick?* The Mississippi Space Grant Consortium Teacher Conference, School of Computing, University of Southern Mississippi, Hattiesburg, MS

Workshop content sessions delivered

- 03/15-16/2019: *Analysis and Investigation Through Cyber Scenarios (AICS) Mini Camp*, Louisiana Tech University, Bossier City, LA
- 03/08-09/2019: *Analysis and Investigation Through Cyber Scenarios (AICS) Mini Camp*, Louisiana Tech University, Baton Rouge, LA
- 11/26-27/2018: *Computer Build Teacher and Student Workshop (Lincoln Parish Schools)*, Louisiana Tech University, Ruston, LA
- 08/20-22/2018: *Living with Cyber Workshop*, Louisiana Tech University, Ruston, LA
- 06/11-12/2018: *Computer Build Teacher and Student Workshop*, Louisiana Tech University GEAR UP Program, Baton Rouge, LA
- 05/05/2018: *Cyber Discovery and Analysis and Investigation Through Cyber Scenarios (AICS) Teacher Workshops*, Louisiana Tech University, Ruston, LA
- 08/28-30/2017: *Living with Cyber Workshop*, Louisiana Tech University, Ruston, LA
- 08/03-04/2017: *Computer Build Student Workshop (3D Printers)*, Louisiana Tech University, Ruston, LA
- 08/01/2017: *Computer Build Student Workshop (Computers)*, Louisiana Tech University, Ruston, LA
- 07/06/2017: *Computer Build Teacher Workshop*, Louisiana Tech University, Ruston, LA
- 04/22/2017: *Cyber Discovery and Analysis and Investigation Through Cyber Scenarios (AICS) Teacher Workshops*, Louisiana Tech University, Ruston, LA
- 10/17-19/2016: *C3E (Computational Cybersecurity in Compromised Environments) Competition Panel*, Georgia Tech University, Atlanta, GA
- 08/15-17/2016: *Living with Cyber Workshop*, Louisiana Tech University, Ruston, LA
- 08/01-02/2016: *Computer Build Teacher and Student Workshops*, Louisiana Tech University, Ruston, LA
- 07/25-28/2016: *PRAXIS Computer Science Workshop*, National Integrated Cyber Education Research Center (NICERC), Little Rock, AR
- 07/19-21/2016: *Education Discovery Forum (Computer Science Curriculum lead)*, National Integrated Cyber Education Research Center (NICERC), Dallas, TX
- 07/13-16/2015: *Education Discovery Forum (Cyber Science Curriculum)*, National Integrated Cyber Education Research Center (NICERC), Shreveport, LA
- 05/15-16/2015: *Cyber Discovery Institutional Seminar*, University of Central Arkansas, Conway, AR

- 05/02/2015: *Cyber Discovery Institutional Workshop*, University of Central Arkansas, Conway, AR
- 04/24-26/2015: *Cyber Discovery Institutional Workshop*, Eastern Michigan University, Ypsilanti, MI
- 03/05-07/2015: *Cyber Discovery Institutional Workshop*, Eastern Michigan University, Ypsilanti, MI
- 02/28/2015: *Cyber Discovery 2.0 Teacher Workshop*, Louisiana Tech University, Ruston, LA
- 02/21/2015: *Cyber Discovery Teacher Workshop*, Louisiana Tech University, Ruston, LA
- 11/13-15/2014: *Cyber Discovery Institutional Seminar*, Eastern Michigan University, Ypsilanti, MI
- 07/14-18/2014: *Education Discovery Forum (Cyber Science Curriculum)*, National Integrated Cyber Education Research Center (NICERC), Shreveport, LA
- 05/02-03/2014: *Cyber Discovery Institutional Seminar*, University of Central Arkansas, Conway, AR
- 04/26/2014: *Cyber Discovery 2.0 Teacher Workshop*, Louisiana Tech University, Ruston, LA
- 04/10-12/2014: *Cyber Discovery Institutional Workshop*, University of Central Arkansas, Conway, AR
- 03/03-06/2014: *Cyber Discovery Institutional Workshop*, Portland State University, Portland, OR
- 03/15/2014: *Cyber Discovery Teacher Workshop*, Louisiana Tech University, Ruston, LA
- 03/08/2014: *Cyber Discovery 2.0 Teacher Workshop*, Louisiana Tech University, Ruston, LA
- 02/08/2014: *Cyber Discovery Teacher Workshop*, Louisiana Tech University, Ruston, LA
- 07/15-19/2013: *Cyber Science Curriculum Teacher Workshop*, National Integrated Cyber Education Research Center (NICERC), Ruston, LA
- 04/20/2013: *Cyber Discovery Teacher Workshop*, Louisiana Tech University, Ruston, LA
- 02/23/2013: *Cyber Discovery Teacher Workshop*, Louisiana Tech University, Ruston, LA
- 07/16-19/2012: *Cyber Science Curriculum Teacher Workshop*, National Integrated Cyber Education Research Center (NICERC), Ruston, LA

- 05/12/2012: *Cyber Discovery 2.0 Teacher Workshop*, Louisiana Tech University, Ruston, LA
- 03/17/2012: *Cyber Discovery 2.0 Teacher Workshop*, Louisiana Tech University, Ruston, LA
- 07/19-22/2011: *Cyber Science Curriculum Teacher Workshop*, National Integrated Cyber Education Research Center (NICERC), Ruston, LA

Residential camp content sessions delivered

- 06/17-22/2019: *Analysis and Investigation Through Cyber Scenarios (AICS) Camp 2*, Louisiana Tech University, Ruston, LA
- 06/03-08/2019: *Analysis and Investigation Through Cyber Scenarios (AICS) Camp 1*, Louisiana Tech University, Ruston, LA
- 05/27-06/01/2019: *Cyber Discovery Camp*, Louisiana Tech University, Ruston, LA
- 06/18-23/2018: *Analysis and Investigation Through Cyber Scenarios (AICS) Camp*, Louisiana Tech University, Ruston, LA
- 06/04-09/2018: *Cyber Discovery Camp 2*, Louisiana Tech University, Ruston, LA
- 05/28-06/02/2018: *Cyber Discovery Camp 1*, Louisiana Tech University, Ruston, LA
- 06/19-24/2017: *Analysis and Investigation Through Cyber Scenarios (AICS) Camp*, Louisiana Tech University, Ruston, LA
- 06/05-10/2017: *Cyber Discovery Camp 2*, Louisiana Tech University, Ruston, LA
- 05/29-06/03/2017: *Cyber Discovery Camp 1*, Louisiana Tech University, Ruston, LA
- 06/20-25/2016: *Cyber Discovery Camp*, Eastern Michigan University, Ypsilanti, MI
- 05/30-06/04/2016: *Cyber Discovery Camp*, Louisiana Tech University, Ruston, LA
- 07/20-25/2015: *Cyber Discovery 2.0 Camp*, Louisiana Tech University, Ruston, LA
- 06/22-27/2015: *Cyber Discovery Camp*, Eastern Michigan University, Ypsilanti, MI
- 06/15-20/2015: *Cyber Discovery Camp*, University of Central Arkansas, Conway, AR
- 06/08-13/2015: *Cyber Discovery Camp 2*, Louisiana Tech University, Ruston, LA
- 06/01-06/2015: *Cyber Discovery Camp 1*, Louisiana Tech University, Ruston, LA
- 07/21-26/2014: *Cyber Discovery 2.0 Camp*, Louisiana Tech University, Ruston, LA
- 07/07-12/2014: *Cyber Discovery Camp*, Portland State University, Portland, OR
- 06/23-28/2014: *Cyber Discovery Camp*, University of Central Arkansas, Conway, AR
- 06/09-14/2014: *Cyber Discovery Camp 2*, Louisiana Tech University, Ruston, LA

- 06/02-07/2014: *Cyber Discovery Camp 1*, Louisiana Tech University, Ruston, LA
- 06/03-08/2013: *Cyber Discovery Camp 2*, Louisiana Tech University, Ruston, LA
- 05/27-06/01/2013: *Cyber Discovery Camp 1*, Louisiana Tech University, Ruston, LA
- 07/23-28/2012: *Cyber Discovery 2.0 Camp 2*, Louisiana Tech University, Ruston, LA
- 07/09-14/2012: *Cyber Discovery 2.0 Camp 1*, Louisiana Tech University, Ruston, LA
- 06/28-07/02/2012: *Cyber Discovery Camp*, Louisiana Tech University, Ruston, LA

Mentoring Experience

Committees chaired

- Ph.D. Advisory Committee Chair: Eyas Abu Alhaj, *TBD*, Louisiana Tech University, 2019–2020
- Ph.D. Advisory Committee Chair: Ahmed Almalki, *TBD*, Louisiana Tech University, 2019–2020
- Ph.D. Advisory Committee Chair: Zakaria El-Awadi, *TBD*, Louisiana Tech University, 2019–2020
- Ph.D. Advisory Committee Chair: Yogeswar Kalle, *TBD*, Louisiana Tech University, 2019–2020
- Ph.D. Advisory Committee Chair: Baker Smadi, *TBD*, Louisiana Tech University, 2019–2020
- Ph.D. Advisory Committee Chair: John Spurgeon, *Fog Load-Balancing for Edge-Compute Clusters*, Louisiana Tech University, 2018–2020
- Ph.D. Advisory Committee Chair: Ali AlQahtani, *Zero Effort Two-Factor Authentication*, Louisiana Tech University, 2017–2020
- Ph.D. Advisory Committee Chair: Hosam Alamleh, *Unobtrusive Location-Based Access Control Utilizing Existing IEEE 802.11 Infrastructure*, Louisiana Tech University, 2017–2019
- Ph.D. Advisory Committee Chair: Teri Williams, *Sub Pixel Analysis And Processing of Sensor Data for Mobile Target Intelligence Information and Verification*, Louisiana Tech University, 2008–2010
- M.S. Advisory Committee Chair: Jonathon Beauregard, *Assessing How Human Drivers React to Autonomous Vehicles and How Autonomous Vehicles Affect Traffic Safety Statistics Using a Simulation Environment*, Louisiana Tech University, 2018–2020
- M.S. Advisory Committee Chair: Philip Raeisghasem, *TBD*, Louisiana Tech University, 2018–2020

- M.S. Advisory Committee Chair: Mingke Chen, *Enhanced Cloud Computing Storage Model by Implementing Segmentation and Renaming Method*, Louisiana Tech University, 2013–2015
- M.S. Advisory Committee Chair: Victor Strimbu, *Individual Tree Detection and Delineation in LiDAR Point Clouds*, Louisiana Tech University, 2013–2014
- M.S. Advisory Committee Chair: Nathan Killeen, *Artificial Life for Modeling City Development*, Louisiana Tech University, 2011–2013
- M.S. Advisory Committee Chair: Justin Poole, *Integrated Framework for Visualizing Network Infrastructures to Provide Real Time Network Defense*, Louisiana Tech University, 2009–2011

Committees served

- Ph.D. Advisory Committee: Ibrahim Al-Agha, *TBD*, Louisiana Tech University, 2019–2020
- Ph.D. Advisory Committee: Miraz Zaman, *TBD*, Louisiana Tech University, 2017–2020
- Ph.D. Advisory Committee: Zilong Li, *TBD*, Louisiana Tech University, 2016–2020
- Ph.D. Advisory Committee: Yufan Chen, *TBD*, Louisiana Tech University, 2015–2020
- Ph.D. Advisory Committee: Radhika Medury, *TBD*, Louisiana Tech University, 2015–2020
- Ph.D. Advisory Committee: Ayesha Akter, *Feature Space Modeling for Accurate and Efficient Learning from Non-Stationary Data*, Louisiana Tech University, 2015–2019
- Ph.D. Advisory Committee: Norman Mapes, *Multidimensional Feature Engineering for Post-Translational Modification Prediction Problems*, Louisiana Tech University, 2014–2018
- Ph.D. Advisory Committee: Andrew Gardner, *Motion-Capture-Based Hand Gesture Recognition for Computing and Control*, Louisiana Tech University, 2013–2018
- Ph.D. Advisory Committee: Richard Appiah, *Spatiotemporal Subspace Feature Tracking by Mining Discriminatory Characteristics*, Louisiana Tech University, 2012–2017
- Ph.D. Advisory Committee: Sara Blazek, *A Study of Mathematics Achievement, Placement, and Graduation of Engineering Students*, Louisiana Tech University, 2012–2017
- Ph.D. Advisory Committee: Stanislav Ponomarev, *Intrusion Detection System of Industrial Control Networks Using Network Telemetry*, Louisiana Tech University, 2012–2015
- Ph.D. Advisory Committee: Nathan Wallace, *The Detection of Malicious Cyber Activity in the Power Grid*, Louisiana Tech University, 2011–2014

- Ph.D. Advisory Committee: Miguel Gates, *Position-Adaptive Localization of an Electromagnetic Source Using Static and Mobile Sensor Networks*, Louisiana Tech University, 2011–2013
- Ph.D. Advisory Committee: Isaac Gang, *BEMDEC: An Adaptive and Robust Approach to Digital Image Features Extraction*, University of Southern Mississippi, 2009–2010
- Ph.D. Advisory Committee: Jeremy Kackley, *DNAgents: Genetically Engineered Intelligent Mobile Agents*, University of Southern Mississippi, 2008–2010
- Ph.D. Advisory Committee: Shrijit S. Joshi, *Naïve Bayes and Similarity Based Methods for Identifying Computer Users Using Keystroke Patterns*, Louisiana Tech University, 2008
- M.S. Advisory Committee: Nishant Shakya, *TBD*, 2017–2020
- M.S. Advisory Committee: Jan Durand, *Evaluation of Random Projection for Malware Classifcation*, 2010–2012
- M.S. Advisory Committee: Juan Flores, *Evolution of Traditional Digital Forensics in Virtualization by Using Virtual Machine Introspection*, 2010–2012

Supervised research

- Jonathon Beauregard, *Megaprocessor: Louisiana Tech's Room-sized CPU Replica*, Louisiana Tech University, 2017–2020
- Christopher Boquet, Thomas Bozeman, Travis Evans, Shawn Killeen, Alexander Montegna, Nathan Ruppel, Elizabeth Smith, *Extraction of Social Context via Synthetic Pollination for Information Tracking and Control*, Louisiana Tech University, 2016–2018
- Caroline Hubbard, Miguel Garcia, Jaryd Rester, Zachary Wentzell, *Polymorphic Network: Fooling Network Scans*, Louisiana Tech University, 2014
- Zachary Wentzell, *Shapeshifter: Dynamic Network Polymorphism*, Louisiana Tech University, 2013–2014
- Thomas Bozeman, Regan Carver, Leo Gourrier, Skylar McLean, Ryan Tiedeman, *A Cryptologic Method for Preventing Unauthorized Outbound Network Traffic via Authenticating Network Devices*, Louisiana Tech University, 2012–2013
- Justin Poole, *Cyber Security Research*, Louisiana Tech University, 2009

Service

Service to profession

- 2014–present: Advisory Board Member, National Integrated Cyber Education Research Center (NICERC)

- 2012–present: Reviewer, Multiagent Systems and Applications: Practice and Experience
- 2010–present: Reviewer, Journal of Management and Engineering Integration
- 2007–present: Member, Institute of Electrical and Electronics Engineers (IEEE)
- 2006–present: Member, Association for Computing Machinery (ACM)
- 2017: Reviewer, International Multi-Conference on Complexity, Informatics, and Cybernetics, Orlando, FL
- 2013–2019: Technical Program Committee Member/Reviewer, The Florida Artificial Intelligence Research Society, AI and Cyber Security, Pensacola Beach, FL
- 2011–2019: Technical Program Committee Member/Reviewer, Federated Computer Science and Information Systems Conference, Joint Agent-oriented Workshops in Synergy, Szczecin, Poland
- 2010–2019: Technical Program Committee Member/Reviewer, International Conference on Industry, Engineering, and Management Systems, Cocoa Beach, FL
- 2010: Proceedings Editor, CRW'10: 3^{rd} Cyberspace Research Workshop, Shreveport, LA
- 2010: Publication and Proceedings Chair, CRW'10: 3^{rd} Cyberspace Research Workshop, Shreveport, LA
- 2010: Publicity Chair for Announcement and Web, CRW'10: 3^{rd} Cyberspace Research Workshop, Shreveport, LA
- 2010: Local Arrangement Chair, CRW'10: 3^{rd} Cyberspace Research Workshop, Shreveport, LA
- 2010: Technical Program Committee Member/Reviewer, CRW'10: 3^{rd} Cyberspace Research Workshop, Shreveport, LA
- 2009: Technical Program Committee Member/Reviewer, International Conference on Contemporary Computing, Noida, India
- 2009: Proceedings Editor, 2^{nd} Cyberspace Research Workshop (2009), Shreveport, LA
- 2009: Publication and Proceedings Chair, 2^{nd} Cyberspace Research Workshop (2009), Shreveport, LA
- 2009: Technical Program Committee Member/Reviewer, 2^{nd} Cyberspace Research Workshop (2009), Shreveport, LA
- 2007–2010: Session Chair, Decision Support Systems, International Conference on Industry, Engineering, and Management Systems, Cocoa Beach, FL

Service to academic program

- 2012–2020: Student Advisor, Cyber Engineering Program, Louisiana Tech University
- 2008–2020: Student Advisor, Computer Science Program, Louisiana Tech University
- 2008–2020: Member, Ph.D. Advisory Committees of many students, Louisiana Tech University
- 2008–2020: Member, M.S. Advisory Committees of many students, Louisiana Tech University
- 2012–2017: Chair, CS, EE, and EET Website Development Advisory Committee, Louisiana Tech University
- 2012–2017: Faculty Sponsor, ACM Local Chapter, Louisiana Tech University
- 2011–2019: Coordinator of Student Engagement, Computer Science Program, Louisiana Tech University
- 2008–2013: Coach, Deloitte (formerly BearingPoint) Intercollegiate Programming Competition, Hattiesburg, MS

Service to college

- 2020–present: Chair, Computer Science Program, University of Tampa
- 2016–2020: Thread Lead, Content Developer, and Presenter, Analysis and Investigation Through Cyber Scenarios (AICS), COES, Louisiana Tech University
- 2014–2020: Member, Integrated STEM Education Research Center (ISERC), Louisiana Tech University
- 2013–2020: Program Chair, Computer Science Program, Louisiana Tech University
- 2012–2020: Thread Lead, Content Developer, and Presenter, Cyber Discovery, COES, Louisiana Tech University
- 2011–2020: Judge, Freshman Design Expo, Louisiana Tech University
- 2011–2020: Member, COES Research and Economic Development Travel Grant Program, Louisiana Tech University
- 2012–2016: Co-Thread Lead, Content Developer, and Presenter, Cyber Discovery 2.0, COES, Louisiana Tech University
- 2012–2013: Interim Program Chair, Cyber Engineering Program, Louisiana Tech University
- 2011–2014: Member, COES Research Strategic Committee, Louisiana Tech University
- 2008: Chair, Danny R. Carter Scholarship Committee, School of Computing, University of Southern Mississippi

- 2008: Chair, Bob Cold Award Committee, School of Computing, University of Southern Mississippi
- 2008: Judge, Sixth Innovative Design for Computing Competition, University of Southern Mississippi

Service to university

- 2015–2020: (Inaugural) Steering Committee Member, Waggonner Center for Civic Engagement and Public Policy, Louisiana Tech University
- 2010–2020: Creator, Organizer, and Manager, Cyber Storm, Louisiana Tech University
- 2012–2014: Chair, Technology Subcommittee, University Senate, Louisiana Tech University
- 2011–2014: Member, University Senate, Louisiana Tech University
- 2011–2012: Chair, Policies and Procedures Subcommittee, University Senate, Louisiana Tech University

Service to community

- 2016–2020: Creator, Developer, and Presenter, Computer Build Workshops (Demystifying the Computer), Louisiana Tech University
- 2010–2020: Judge, Louisiana Regional Science Fair, Louisiana Tech University
- 2018: Creator, Developer, and Presenter, Computer Build Workshops (Demystifying the Computer), GEAR UP, Louisiana Tech University
- 2015–2018: Subject Matter Expert and Content Developer, High School Computer Science Curriculum, National Integrated Cyber Education Research Center (NICERC)
- 2013–2016: National Subject Matter Expert, Content Developer, and Presenter, Cyber Discovery, National Integrated Cyber Education Research Center (NICERC)
- 2013–2016: Subject Matter Expert, Content Developer, and Presenter, Educational Discovery Forum, National Integrated Cyber Education Research Center (NICERC)
- 2013–2016: Course Development and Instructor, IT Certificate, Louisiana Tech University
- 2011–2012: Course Development and Instructor, Advanced Certification Technical Training (ACTT) Program, Louisiana Tech University
- 2010–2016: Curriculum Development and Implementation, Cyber Science, COES, Louisiana Tech University
- 2010–2012: Facilitator, Cyber Discovery, COES, Louisiana Tech University
- 2008: Event Supervisor, Mississippi Science Olympiad, University of Southern Mississippi

Honors and Awards

- 2014–2020: Louisiana Tech University, W. W. Chew Endowed Professorship
- 2019: Louisiana Tech University, College of Engineering and Science, Research and Economic Impact Award
- 2018: Louisiana Tech University, College of Engineering and Science, Student Quality and Outreach Award
- 2016: Louisiana Tech University, College of Engineering and Science, Innovative Education Award
- 2012: EWARDS Educator of the Year in Technology, Nominee
- 2010–2011: Louisiana Tech University, College of Engineering and Science, Outstanding Faculty Award
- 2004–2007: National Dean's List
- 2002–2007: President's List
- 2003–2005: Danny R. Carter Scholarship
- 1992: Key Club Scholarship
- 1992: Presidential Academic Fitness Award
- 1991: Harvard Alumni Association Prize Book