Todd R. Andel   Curriculum Vitae

Professor
School of Computing
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A.   Professional Information

A.1 Professional Education

Florida State University (USA)	Computer Science	Ph.D., 2007
Air Force Institute of Technology (USA)	Computer Engineering	M.S.C.E., 2002
University of Central Florida (USA)	Computer Engineering	B.S.C.E., 1998

A.2 Full-Time Academic Positions

Professor	University of South Alabama	Aug 15, 2015 – present
Associate Professor	University of South Alabama	Aug 15, 2012 – Aug 14, 2015
Assistant Professor	Air Force Institute of Technology	Dec 15, 2007 – Aug 14, 2012

A.3 Other Professional Positions

Officer	United States Air Force	Sep 1998 – Aug 2012 (retired, Maj, USAF)
Enlisted	United States Air Force	Jul 1989 – Sep 1998

B.   Research Activities

B.1 Research Grants and Awards

1. J.T. McDonald, T.R. Andel, R.G. Bace, H.L. Barnett, Capacity Building for Information Assurance and Cyber Security, NSF, DGE-1303384, Sep 2014 – Aug 2017: **$322,410**

2. J.T. McDonald, T.R. Andel, H.L. Barnett, II-NEW: RUI: Expanding Cyber Assurance Research and Education, NSF, CNS-1305369 Oct 2013 – Sep 2015: **$476,017**

3. J.T. McDonald, T.R. Andel, A. Clark, H.L. Barnett, *"Scholarship for Service in Information Assurance,"* NSF, DUE-1241675, Jan 2013 – Dec 2017: **$2,407,693**

4. E.D. Trias, T.R. Andel, J.W. Humphries, M.R. Grimaila, *"Information Operations and Security Using Non-cryptographic Solutions,"* AFOSR, Dec 2009 – Jun 2012: **$71,695**

5. T.R. Andel, E.D. Trias, K.M. Hopkinson, R.W. Thomas, *"Using Formal Methods to Analyze Network Security Properties,"* AFOSR, Dec 2008 – Jun 2012: **$74,089**

6. J.T. McDonald, Y. Kim, T.R. Andel, "*Architectural Framework for Evaluating General, Efficient, and Measurable Program Protection*," AFOSR, Dec 2007 – Sep 2010: **$82,500**

7. T.R. Andel, "*Formal Methods Approaches to Analyzing and Generating Routing Protocols*," AFIT Faculty Research Council, Dec 2007 – Sep 2008: **$13,500**

B.2 Research Publications

B.2.1 Refereed Journal Publications

1. Joshua Cazalas, Todd R. Andel, and Jeffrey T. McDonald, "Analysis and Categorical Application of LSB Steganalysis Techniques," *Journal of Information Warfare*, Jul 2014, vol. 13, no. 3., pp. 12-22.

2. Todd R. Andel, John Barron, J. Todd McDonald, and Jeffrey W. Humphries, "RSA Power Analysis Obfuscation: A Dynamic Algorithmic Hardware Countermeasure," *International Journal of Computing & Digital Systems*, May 2014, vol. 3, no. 2, pp. 69-78.

3. Todd R. Andel, Austin Fritzke, Jeffrey W. Humphries, and J. Todd McDonald, "Design and Implementation of Hiding Techniques to Obfuscate Against Side-Channel Attacks on AES," *International Journal of Computing & Network Technology*, May 2014, vol. 2, no. 2, pp. 65-72.

4. Jose E. Fadul, Kenneth M. Hopkinson, Todd R. Andel, and Christopher A. Sheffield, "A Trust Management Toolkit for Smart Grid Protection Systems," *IEEE Transactions On Power Delivery*, Aug 2014, vol. 29, no. 4, pp. 1768 – 1779.

5. Jeffrey T. McDonald and Todd R. Andel, "Integrating Historical Security Jewels in Information Assurance Education," *IEEE Security and Privacy: Lost Treasures of Computer Security & Privacy*, Nov-Dec 2012, vol. 10, no. 6, pp. 45-50.

6. Kyle E. Stewart, Jeffrey W. Humphries, and Todd R. Andel, "An Automated Virtualization Performance Analysis Platform," *Journal of Defense Modeling and Simulation: Cyber Defense - Methodologies and Techniques for Evaluation*, vol 9, no 3, July 2012, pp. 257-265.

7. Todd R. Andel, Greg Back, and Alec Yasinsac, "Automating the Security Analysis Process of Secure Ad Hoc Routing," *Simulation Modelling Practice and Theory*, vol 19, no 9, October 2011, pp 2032-2049.

8. B.W. Ramsey, B.E. Mullins, R.W. Thomas, and T.R. Andel, "Subjective audio quality over a secure IEEE 802.11n network," *International Journal of Security and Networks*, vol 6, no 1, 2011 pp 53-63.

9. L.A. Oquendo Class, K.M. Hopkinson, X. Wang, T. R. Andel, R.W. Thomas, "A Robust Communication-Based Special Protection System," *IEEE Transactions On Power Delivery*, vol. 25, no. 3, July 2010, 1314-1324.

10. Todd R. Andel and A. Yasinsac, "Surveying Security Analysis Techniques in MANET Routing Protocols," *IEEE Communications Surveys & Tutorials*, 4th Quarter 2007, vol. 9, pp. 70-84.

11. Todd R. Andel and Alec Yasinsac, "On the Credibility of MANET Simulations," *IEEE Computer*, vol. 39, no. 7, July 2006, pp. 48-54.

B.2.2 Refereed Conference Publications

1. Cordell C. Davidson, Joel Dawson, Paul Carsten, Mark Yampolskiy, and Todd R. Andel, **(Accepted to Appear)** *In Proceedings of 3rd International Symposium for ICS & SCADA Cyber Security Research (ICS-CSR 2015)*, Ingolstadt, Germany, 17-18 September, 2015.

2. Paul Carsten, Todd R. Andel, Mark Yampolskiy, Jeffrey T. McDonald , and Samuel Russ, "A System to Recognize Intruders in Controller Area Network (CAN)," **(Accepted to Appear)** *In Proceedings of 3rd International Symposium for ICS & SCADA Cyber Security Research (ICS-CSR 2015)*, Ingolstadt, Germany, 17-18 September, 2015.

3. William B. Glisson, Todd Andel, Todd McDonald, Mike Jacobs, Matt Campbell, Johnny Mayr, "Compromising a Medical Mannequin," **(Accepted to Appear)** *In Proceedings of 21st Americas Conference on Information Systems (AMCIS 2015)*, Puerto Rico, 13-15 August, 2015.

4. Paul Carsten, Todd R. Andel, Mark Yampolskiy, and Jeffrey T. McDonald, "In-Vehicle Networks: Attacks, Vulnerabilities, and Proposed Solutions," *In Proceedings of 2015 Cyber and Information Security Research Conference (CISR '14)*, Oak Ridge, TN, 7-9 April 2015, Article 1, 8 pp.

5. Joshua Cazalas, Jeffrey T. McDonald, Todd R. Andel, and Natalia Stakhanova, "Probing the Limits of Virtualized Software Protection," *In Proceedings of 4th Program Protection and Reverse Engineering Workshop (PPREW-4),* New Orleans, Louisiana, December 9, 2014, Article 5, 11 pp.

6. Mark Yampolskiy, Todd R. Andel, Jeffrey T. McDonald, William B. Glisson, and Alec Yasinsac, "Intellectual Property Protection in Additive Layer Manufacturing: Requirements for Secure Outsourcing," *In Proceedings of 4th Program Protection and Reverse Engineering Workshop (PPREW-4),* New Orleans, Louisiana, December 9, 2014, Article 7, 9 pp.

7. Todd R. Andel, Lindsey N. Whitehurst, and J. Todd McDonald, "Software Security and Randomization through Program Partitioning and Circuit Variation," *In Proceedings of 1st Workshop on Moving Target Defense (MTD 2014)*, Scottsdale, Arizona, November 3, 2014, pp 79-86.

8. Lindsey N. Whitehurst, Todd R. Andel, and J. Todd McDonald, "Exploring Security in ZigBee Networks," *In Proceedings of 2014 Cyber and Information Security Research Conference (CISR '14)*, Oak Ridge, TN, 8-10 April 2014, pp. 25-28.

9. Joshua Cazalas, Todd R. Andel, and Jeffrey T. McDonald, Analysis and Categorical Application of LSB Steganalysis Techniques, *In Proceedings of 9th International Conference on Cyber Warfare and Security (ICCWS-2014)*, West Lafayette, Indiana, USA, 24-25 March 2014, pp. 25-32.

10. Todd R. Andel and J. Todd McDonald, "A Systems Approach to Cyber Assurance Education," *In Proceedings of 2013 Information Security Curriculum Development Conference*, Kennesaw, GA, 12 October 2013, pp. 13-19.

11. Todd R. Andel and Alec Yasinsac, "Secure Internet Voting Protocol for Overseas Military Voters," *Security Protocols XX - 20th International Workshop,* Cambridge, UK, April 12-13, 2012, Springer-LNCS, vol. 7622, pp. 3-14.

12. Brandon A. Brown, Todd R. Andel, and Yong Kim, "An FPGA Noise Resistant Digital Temperature Sensor with Auto Calibration," *In Proceedings of 6th International Conference on Information Systems, Technology, and Management(ICISTM 2012)*, Grenoble, France, 28-30 March 2012, pp. 325-335.

13. John Barron, Todd R. Andel, and Yong Kim, "Dynamic Architectural Countermeasure To Protect RSA Against Side Channel Power Analysis Attacks," *In Proceedings of 6th International Conference on Information Systems, Technology, and Management(ICISTM 2012)*, Grenoble, France, 28-30 March 2012, pp. 372-383.

14. Matthew F. Steele and Todd R. Andel, "Modeling the Optimized Link-State Routing Protocol for Verification," *Spring Simulation Multi-conference (SpringSim12)*, Orlando, FL, 26-29 March 2012, 8 pages.

15. Kyle E. Stewart, Todd R Andel, and Jeffrey W. Humphries, "Measuring the Performance of Network Virtualization Tool N2N in the Design of a Cyber Warfare Training and Education Platform," *In Proceedings of 2011 Spring Simulation Multi-conference (SpringSim11)*, Boston, MA, 4-7 April 2011, pp. 28-35.

16. Jose Fadul, Kenneth Hopkinson, Christopher Sheffield, James Moore, and Todd Andel, "Trust Management and Security in the Future Communication-Based "Smart" Electric Power Grid", *in 44th Hawaii International Conference on System Sciences (HICSS 2011)*, Kauai, Hawaii, 4-7 Jan 2011, pp. 1-10.

17. J. E. Fadul, K. M. Hopkinson, T. R. Andel, J. T. Moore, and S. H. Kurkowski, "SCADA Trust Management System," in *2010 International Conference on Security and Management (SAM'10) (under The 2010 World Congress in Computer Science, Computer Engineering, and Applied Computing (WORLDCOMP'2010)),* Las Vegas, Nevada USA, July 2010, pp. 548 - 554.

18. Todd R. Andel, Kyle E. Stewart, and Jeffrey W. Humphries, "Using Virtualization for Cyber Security Education and Experimentation," *In Proceedings of the 14th The Colloquium for Information Systems Security Education (CISSE 2010),* Baltimore, MD, 7-9 June 2010, 6 pages.

19. J. E. Fadul, K. M. Hopkinson, T. R. Andel, J. T. Moore, and S. H. Kurkowski, "Simple Trust Protocol for Wired and Wireless SCADA Networks," in *5th International Conference on Information Warfare and Security,* Dayton, OH, April 2010, pp. 89-97.

20. C.M. Durham, T.R. Andel, K.M. Hopkinson, and S.H. Kurkowski, "Evaluation of an OPNET Model for Unmanned Aerial Vehicle (UAV) Networks," *In Proceedings of 2009 Spring Simulation Multi-conference (SpringSim09)*, San Diego, CA, 22-27 March 2009, 8 pages.

21. K.E. Stewart, J.W. Humphries, and T.R. Andel, "Developing a Virtualization Platform for Courses in Networking, Systems Administration and Cyber Security Education," *In Proceedings of 2009 Spring Simulation Multi-conference (SpringSim09)*, San Diego, CA, 22-27 March 2009, 7 pages.

22. M.G. Wabiszewski, Jr, T.R. Andel, B.E. Mullins, and R.W. Thomas, "Enhancing Realistic Hands-on Network Training in a Virtual Environment," *In Proceedings of 2009 Spring Simulation Multi-conference (SpringSim09)*, San Diego, CA, 22-27 March 2009, 8 pages.

23. B.W. Ramsey, B.E. Mullins, R.W. Thomas, and T.R. Andel, "Subjective Audio Quality over Secure IEEE 802.11 Wireless Local Area Networks," in *IEEE International Performance, Computing and Communications Conference, 2008. IPCCC 2008*, Austin, TX, 7-9 Dec 2008, pp. 469-474.

24. Todd R. Andel and A. Yasinsac, "Automated Evaluation of Secure Route Discovery in MANET Protocols," *in 15th International SPIN Workshop on Model Checking of Software (SPIN 2008)*, Los Angeles, CA, Aug 10-12, 2008, LNCS vol. 5156, pp. 26-41.

25. Todd R. Andel and A. Yasinsac, "Adaptive Threat Modeling for Secure Ad Hoc Routing Protocols," *In Proceedings of the 3rd International Workshop on Security and Trust Management (STM 07)*, Dresden, Germany Sep 27, 2007, vol. 197: ENTCS, pp. 3-14.

26. Todd R. Andel and Alec Yasinsac, "Automated Security Analysis of Ad Hoc Routing Protocols," *In Proceedings of the Foundations of Computer Security and Automated Reasoning for Security Protocol Analysis (FCS-ARSPA'07)*, Wroclaw, Poland, July 8, 2007, pp. 9-26.

27. Todd R. Andel and Alec Yasinsac, "The Invisible Node Attack Revisited," *In Proceedings of IEEE SoutheastCon2007*, Richmond, VA, Mar 22-25, 2007, pp. 686-691.

28. Todd R. Andel and Alec Yasinsac, "Wireless Protocol Security; to Simulate or not Simulate," *In Proceedings of 2006 Spring Simulation Multi-conference (SpringSim06)*, Von Braun Center, Huntsville, Alabama, April 2-6, 2006, pp. 511-517.

29. Todd Andel, Dan Caudill, Brent Givens, et al, "Lessons Learned in Virtual Strike Warfare Environment #7," *In Proceedings of the 2000 Fall Simulation Interoperability Workshop (00F-SIW-056)*, Orlando, FL, September 2000.

30. Jesse B. Zydallis, Todd R. Andel, Ernest F. Payne, "Real-Time Performance of RTI Version 1.3," *In proceedings of the 1999 Fall Simulation Interoperability Workshop (99F-SIW-098)*, Orlando, FL, September 1999.

B.2.3 Other Publications

1. Kyle Stewart, Michael Clark, Kenneth Hopkinson, and Todd Andel, "MA-AHASBE: Multi-Authority Anonymous Hierarchical Attribute-Set Based Encryption from Asymmetric Pairings," Technical Report 88ABW-2014-4193, Air Force Institute of Technology, 2015.

2. Mark Yampolskiy, Todd R. Andel, Jeffrey T. McDonald, William B. Glisson, and Alec Yasinsac, "Towards Security of Additive Layer Manufacturing," (Abstract Paper) Presented at *Annual Computer Security Applications Conference (ACSAC)* 2014, New Orleans, Louisiana, December 8-12, 2014.

3. J. Todd McDonald and Todd R. Andel, "Program Partitioning and Polymorphic Functions: A Two-Pronged Approach for Program Protection Research," *ARO Workshop on Continuously Upgradeable Software Security and Protection* (SSP'14), Scottsdale, Arizona, November 7, 2014.

4. T. McDonald, B. Peterson, D. Karrels, T. Andel, and R. Raines, "Guarding the Cybercastle in 2020," *IAnewsletter, Information Assurance Technical Analysis Center*, Vol. 11, No. 3, Fall 2008, pp. 4-12.

5. Todd R. Andel, "Formal Security Evaluation of Ad Hoc Routing Protocols", PhD thesis, Department of Computer Science, Florida State University, 2007.

B.4 Invited Talks
1. "Intellectual Property Protections & Supply Chain Risks," Industrial Security Awareness Council, Ocean Springs, MS, April 17, 2015.
2. "Moving Target Defenses: Johnny Can't Secure, so He Moves," Panel Speaker, 30th Annual Computer Security Applications Conference, New Orleans, LA, Dec. 11, 2014.
3. "Computer Fraud: Intellectual Property Protections," Association of Certified Fraud Examiners - Gulf Coast Chapter, Gulfport, MS, Dec. 2, 2014.
4. "Cyber Security Vulnerabilities in Critical Infrastructure and Medical Devices," Gulf Coast Technology Council, Mobile, AL, Jun. 18, 2014
5. "Educating the Future IA Professional Workforce," IEEE Chapter Meeting, University of South Alabama, Mobile, AL, Apr. 25, 2013.

6. "Educating the Future IA Professional Workforce," CFITS Information Assurance Speaker Series, School of Computing, University of South Alabama, Mobile, AL, Mar. 20, 2013.
7. "Computer Security Research," ACM Chapter Meeting, University of South Alabama, Mobile, AL, Sep. 25, 2012.

B.3 Student Research Advising

- Graduated Masters (Thesis Research Advisor)
  1. Durham, Clifton M., "*Evaluation of an OPNET Model for Unmanned Aerial Vehicle Networks*," Sponsor: Air Force Research Laboratory, Information Directorate, Graduated: March 2009.
  2. Wabiszewski, Michael G. Jr, "*Enhancing Realistic Hands-On Network Training in a Virtual Environment*," Sponsor: 505th Training Squadron, Formal Training Unit, Graduated: March 2009.
  3. Stewart, Kyle E., "Developing a Hybrid Virtualization Platform Design for Cyber Warfare Training and Education," Sponsor: Air Force Research Laboratory, Information Directorate, Graduated: June 2010. (CoAdvised)
  4. Huber, Derek J., "*Attaining Realistic Simulations of Mobile Ad Hoc Networks*," Sponsor: Air Force Office of Scientific Research, Graduated: June 2010. (CoAdvised)
  5. Barron, John W., "*RSA Power Analysis Obfuscation: A Dynamic FPGA Architecture*," Sponsor: Air Force Office of Scientific Research, Graduated: March 2012.
  6. Brown, Brandon A., "*An FPGA Noise Resistant Digital Temperature Sensor with Auto Calibration*," Sponsor: Air Force Office of Scientific Research, Graduated: March 2012.
  7. Fritzke, Austin W., "*Obfuscating Against Side-channel Power Analysis using Hiding Techniques for AES*," Sponsor: Air Force Office of Scientific Research, Graduated: March 2012.
  8. Steele, Matthew F., "*Security Verification of Secure MANET Routing Protocols*," Sponsor: Air Force Office of Scientific Research, Graduated: March 2012.

- Masters Committee Membership: 21 completed
  Air Force Institute of Technology:
  1. Roberts, G., Grad: Mar 08
  2. Carroll, S., Grad: Mar 08
  3. Savage, K., Grad: Mar 08
  4. Pagel, B., Grad: Mar 09
  5. Ramsey, B., Grad: Mar 09
  6. Oquendo Class, L., Grad: Mar 09
  7. Stanton, William E., Grad: Mar 2011
  8. Trejo, Roberto A., Grad: Mar 2011
  9. Falkinburg, Jeffry L., Grad: Mar 2011
  10. Bochert, John R., Grad: Mar 2011
  11. Oslter, Ryan T., Grad: Mar 2011
  12. Corn, Paul, Capt, Grad: Mar 2012
  13. Cicale, Randy, Grad: Mar 2012
  14. Butler, Michael, Grad: Mar 2012
  15. Wolf, Andre, Grad: Mar 2012
  16. Badenhop, Chris, Grad: Mar 2012
  17. Hagen, John, Grad: Jun 2012

  University of South Alabama:

18. Alam, Shabab, Grad: Dec 2013
19. Mishra, Shikher, Grad: May 2014
20. Histing, David, Grad: May 2014
21. Cazalas, Joshua, Grad: May 2014

- Doctoral Committee Membership: 2 completed
  1. Fadul, Jose., Air Force Institute of Technology, Grad: Sep 2011
  2. Steward, Kyle E., Air Force Institute of Technology, Grad: Sep 2015

C.   Teaching Activities

C.1 Courses Taught (indicates # of students)

Air Force Institute of Technology:

#	Course	Title	Term
1.	CSCE 092	Review Course in Computer Systems Architecture	FA-short07 (17)
2.			SU-short08 (12)
3.			FA-short08 (24)
4.			FA-short10 (42)
5.			FA-short11(24)
6.	CSCE 492	Computer Systems Architecture	FA 07 (5)
7.			SU 08 (7)
8.			FA 08 (5)
9.			FA 10 (2)
10.	CSCE 525	Intro to Information Warfare/Operations	SP 08 (8)
11.			SU 09 (14)
12.	CSCE 692	Design Principles of Computer Architecture	WI 09(10)
13.			WI 11(14)
14.			WI 12(10)
15.	CSCE 754	Advanced Topics in Computer Networks	SU 11(5)

University of South Alabama:

1.	CSC 532	Advanced Operating Systems	FA 12 (4)
2.	CSC 580	Data Security	FA 12 (9)
3.	CSC 524	Computer Language Design	SP 13 (6)
4.	CSC 582	Network Security	SP 13 (6)
5.	CIS 518	Research Methodologies	SU 13 (12)
6.	CSC 228	Digital Logic and Computer Architecture	FA 13 (20)
7.			FA 14 (21)
8.	CSC 311	Networking and Communications	FA 13 (33)
9.	CSC 490/590	SpTop-Intro Network Security	SP 14 (9)
10.	CSC 520	Computer Architecture	SP 14 (9)
11.			SP 15 (10)
12.	CSC 532	Distributed Systems	FA 14 (9)
13.	CSC 320	Computer Organization	SP 15 (22)

C.2 Course Development

Air Force Institute of Technology:

2008   CSCE 492, *Computer Systems Architecture* – Incorporated assembly lab project to aid student understanding in portions of the class related to MIPS assembly.

2008, 2009   CSCE 525, *Intro to Info Warfare/Operations* – This course is restructured annually to focus on current IW/IO topics. For the Spring 2008 term, development included current Air Force focus on AFCYBER (P) and the new 17X/1BX career fields. For Summer 2009 term, incorporated new book into course, focusing class on strategic potentials/limitations of information warfare as it pertains to cyber operations.

2011   CSCE 692, *Design Principles of Computer Architecture* – Incorporated new book into class, requiring significant change in lecture material based on current hardware advances.

2011   CSCE 754, *Advanced Topics in Computer Networks* – Developed class around current literature with focus on secure ad hoc routing in wireless settings.

University of South Alabama:

2012   CSC 580, *Data Security* – Developed course lectures and material for first class offering at USA.

2013   CSC 582, *Network Security* – Developed course lectures and material for first class offering at USA.

2013   CSC 228, *Digital Logic and Computer Architecture* – Transitioned course labs that used outdated breadboards and component design to reconfigurable logic using Field Programmable Gate Arrays and an adopted commercial VHDL development suite.

2013   CSC 311, *Networking and Communications*– Transitioned course project to incorporate the NS-3 network simulator. Students now develop and simulate network concepts using an adopted academic/research standard.

2014	CSC 520, *Computer Architecture*– Integrated new course project utilizing the SimpleScaler toolkit. This project allows the students to apply advanced class concepts to determine overall effect on system performance against standardized benchmark suites. The project is focused on cost/performance for design concepts in modern processors.
2014	CSC 490/590, *Special Topics-Intro to Network Security* – Developed and taught first offering of this course at USA. This required initial development of the syllabus and learning objectives, and lecture material. Course was a hybrid combination of CSC 580 & CSC 582 concepts in both an undergraduate and graduate form.
2015	CSC 612 Cybersecurity – Developed doctoral seminar class covering Cyber policy and guidance; legal, privacy and ethical issues; national defense, critical infrastructure security; and corporate security.

D.   Service

D.1 Institutional Service

Air Force Institute of Technology:

2011 – 2012	Computer Science and Engineering Division Chief, Department of Electrical and Computer Engineering
2007 – 2009	ENG military faculty manager

- Arranged 7 pipeline faculty interviews, filling 4 slots for Fall 08 starts
- Arranged 2 pipeline faculty interviews, filling 2 slots for Fall 09 starts
- Arranged, interviewed, and filled 2 direct hire positions for the department
- Coordinated with AFIT/EN, AFIT/ENEL, AFIT/XP, and AFPC for all ENG military personnel actions

Nov 2008	Served on the AFIT Library Advisory Committee during interview process for three candidates to hire a new AFIT library director.
Dec 2011	Member of departmental faculty search committee.
Dec 2011	Dean's representative on doctoral defense of Lt Col Gerald Cottrill.

University of South Alabama:
School of Computing:

Sep 2012	Thesis Awards Committee

2012 – pres	Undergraduate student advising
2012-2013	Chair, BS Cyber Assurance Development Committee
2012-2013	CS Faculty Hiring Committee
2013 – 2014	Chair, CS Faculty Hiring Committee
2013	SoC Internal Grant Reviewer
2014 – pres	Cyber Assurance Program Coordinator
2015	CS Faculty Hiring Committee

University:
| Mar 2013 | Student Interviewer, University Honors Program |
| Sep 2013 – pres | Scholarship and Financial Aid Committee |

D.2 Professional Service

Journal Reviews:

2006   IEEE Transactions on Mobile Computing

2011   Journal of Defense Modeling and Simulation: Cyber Defense - Methodologies and Techniques for Evaluation

2012   IEEE Security & Privacy

2013   Frontiers of Computer Science

2013   AP Journal of Computers

2013   International Journal of Mobile Network Design and Innovation

2015   Computers & Security

2015   Computer Networks

2015   IEEE Security and Privacy

Grant Reviews:

2008   Reviewed grant proposals for the Air Force Office of Scientific Research (AFOSR) in the area of Information Operations and Security.

2014   National Science Foundation Review Panel

2015   National Science Foundation Review Panel

Program Committees & Reviews:

- 5th International Conference on Information Warfare and Security (ICIW 2010)
- 6th International Conference on Information Warfare and Security (ICIW 2011)
- 7th International Conference on Information Warfare and Security (ICIW 2012)
- Workshop on Program Protection and Reverse Engineering, 6th International Conference on Information Systems, Technology & Management (ICISTM 2012)
- 8th Annual Cyber Security and Information Intelligence Research Workshop (CSIIRW 2012)

- 8th International Conference on Information Warfare and Security (ICIW 2013)
- 1st International Conference on Cloud Security Management (ICCSM 2013)
- 8th International Conference on Availability, Reliability and Security (ARES 2013)
- 1st International Conference on Cloud Security Management (ICCSM 2013)
- 9th International Conference on Cyber Warfare and Security (ICCWS 2014)
- 4th International Workshop on Privacy, Security and Trust in Mobile and Wireless Systems (MobiPST 2014)
- 9th International Conference on Availability, Reliability and Security (ARES 2014)
- 9th Annual Cyber and Information Security Research Conference (CISRC 2014)
- 2nd International Conference on Cloud Security Management (ICCSM 2014)
- 17th International Conference on Computer and Information Technology (ICCIT 2014)
- 4th Workshop on Program Protection and Reverse Engineering (PPREW-2014)
- 5th International Workshop on Privacy, Security and Trust in Mobile and Wireless Systems (MobiPST 2015)
- 10th Annual Cyber and Information Security Research Conference (CISRC 2015)
- 10th International Conference on Cyber Warfare and Security (ICCWS 2015)
- 10th International Conference on Availability, Reliability and Security (ARES 2015)
- 18th International Conference on Computer and Information Technology (ICCIT 2015)

Conference Paper Reviews (non-committee):

- European Symposium on Research in Computer Security (ESORICS 2005), (ESORICS 2011)
- International Conference on E-Business and Telecommunication Networks (ICETE 2005)
- International Conference on Availability, Reliability and Security (ARES 2006)
- Information Technology: New Generations (ITNG 2007).
- International Conference on Web Services (ICWS 2008), (ICWS 2009)
- Cognitive Radio Oriented Wireless Networks and Communications (CrownCom 2009)
- International Conference on Web Services (ICWS 2009)
- International Conference on Cloud Computing (IEEE Cloud 2011)
- 8th Annual IFIP WG 11.9 International Conference on Digital Forensics (IFIP WG 11.9 – 2012)
- 34th IEEE Symposium on Security and Privacy (IEEE SP 2013)
- 2013 Information Security Curriculum Development Conference (InfoSecCD 2013)
- 2nd International Conference on Advances in Electrical Engineering (ICAEE 2013)

Consulting:

2010 – 2012   Appointed to the Federal Voting Assistance Program (FVAP) Cyber Security Review Group to provide recommendations as they develop electronic voting options for overseas voters as directed by the 2002/2005 NDAA. This group is

comprised of 20 top federal employees with leadership/influence within the information technology security / cyber security and voting systems.

2015   Cyber Education Project – Learning Outcomes Working Group. engage interested stakeholders (leveraging the work of the SC) in the development of learning outcomes which characterize the knowledge, skills, and abilities that should be gained by students in an undergraduate Cyber Science program. The primary objective of this effort is to provide the cyber education community with useful guidance on developing Cyber Science curricula. The outcomes developed will also be used to guide the development of criteria for Cyber Science program accreditation.

D.3 Professional Society Membership

2013 – pres   Senior Member, Institute of Electrical and Electronics Engineers (IEEE)
2007 – 2013   Member, Institute of Electrical and Electronics Engineers (IEEE)
2007 – pres   Member, Association of Computing Machinery (ACM)
2005 – pres   Member, Upsilon Pi Epsilon, Honor Society in the Computing / Information Disciplines
2001 – pres   Member, Tau Beta Pi, National Engineering Honor Society
2001 – pres   Member, Eta Kappa Nu, Electrical and Computer Engineering Honor Society