

John A. Hamilton, Jr. (Nickname: Drew)

Associate Professor, Computer Science and Software Engineering

Director, [Information Assurance Laboratory](#)

107 Dunstan Hall

Auburn University, AL 36849

Phone: 334.844.6360, Fax: 334.844.6329, email: hamilton@auburn.edu

EDUCATION

- PhD 1996 Computer Science, Texas A&M University (full scholarship)
- MS 1990 Computer Science, Vanderbilt University (full scholarship)
- MS 1987 Systems Management (Information Systems), Univ. of Southern California
- BA 1979 Journalism/Public Relations, Texas Tech University

EXPERIENCE AND EMPLOYMENT RECORD

- 2001-present: Associate Professor (w/tenure), Computer Science & Software Engineering, Auburn University
- 1998-2001 - Director, Joint Forces Program Office, Space and Naval Warfare Systems Command / Visiting Associate Professor, US Naval Postgraduate School
- 1996-1998 - Research Director & Assistant Professor, United States Military Academy
- 1997 (Jan-Jul) Director, Ada Joint Program Office, Defense Information Systems Agency
- 1993 - Chief, Officer Training, US Army Computer Science School
- 1992 - Chief, Software Engineering Branch, US Army Computer Science School
- 1979-88 – US Army Field Artillery Command & Staff assignments

RESEARCH INTEREST SUMMARY

Computer Security, Simulation of Computer Networks, System Design to prevent Denial of Service attacks, Command and Control Interoperability, Command and Control Architecture, Software Architectures, Information Assurance Architectures

RESEARCH EXPERIENCE RELEVANT TO DEPT. OF DEFENSE

- Active Top Secret Security Clearance
- US Army School Trained Nuclear/Chemical Target Analyst (ASI 5H)
- Led Auburn's successful efforts to be certified as a National Security Agency Center of Academic Excellence in Information Assurance (2003), renewed (2006)
- Coached Auburn's Penetration Red Team which took second place at Redstone Arsenal's 2004 Digital Combat Exercise
- Directed DOD SYSCOM command and control interoperability office with an emphasis on security implications of C2 interoperability (JFPO Director, 1998-2001).

HONORS AND AWARDS

- 2006 named to Who's Who in Engineering Education, American Society of Engineering Education
- 2006 Curriculum Award, Committee on National Security Systems and the National Security Agency, "Senior System Managers" (for information assurance) CNSS 4012
- 2006 Curriculum Award, Committee on National Security Systems and the National Security Agency, "System Administrators" (for information assurance) CNSS 4013, beginning, intermediate and advanced levels
- 2006 Curriculum Award, Committee on National Security Systems and the National Security Agency, "Training Standard for Information Systems Security Professionals" NSTISSI 4011

- Responsible for Auburn’s efforts to be competitively re-designated as a Center of Academic Excellence by the National Security Agency, 2006
- 2005 Letter of Appreciation, Colonel M.S. Bohn, USMC, Director, US Marine Corps Operational Test and Evaluation Activity
- 2004 Outstanding CSSE Faculty
- 2004 Auburn Engineering Senior Research Award for Excellence
- 2004 Letter of Appreciation, Ms. Tara Ragan, Director of Software Engineering, Space & Missile Defense Command
- Responsible for Auburn’s efforts to be competitively designated as a Center of Academic Excellence by the National Security Agency, 2003
- 2003 Elected Senior Member of the IEEE
- 2002 Curriculum Award, Committee on National Security Systems and the National Security Agency, “Training Standard for Information Systems Security Professionals” NSTISSI 4011
- 2002 Curriculum Award, Committee on National Security Systems and the National Security Agency, “Designated Approving Authority” (for information security) NSTISSI 4012
- Auburn University Alumni Council, College of Engineering, \$20,000.00 Fellowship, 2002

RESEARCH

NB: Student co-authors are noted with an asterisk.

Books

1. Hamilton, J.A., Jr., (80%) et al., *Modeling Command and Control Interoperability: Cutting the Gordian Knot*, SCS Press, San Diego, Calif. 2004. ISBN: 1-56555-281-4.
2. Hamilton, J.A., Jr., (60%) Nash, D.A., Pooch, U.W., *Distributed Simulation*, CRC Press, Boca Raton, Fla., 1997. ISBN: 0-8493-2590-0.

Refereed Journal Publications

1. Hamilton, J.A., Jr. (100%) *A Conceptual Model for Interoperable Command and Control Acquisition*, *Journal of Defense Modeling and Simulation*, vol. 3, no. 2, April 2006, pp 125 – 138.
2. Hamilton, J.A., Jr. (100%) *DODAF – Based Information Assurance Architectures*, *Crosstalk*. *Crosstalk, The Journal of Defense Software Engineering*, vol. 19, No. 2, February 2006, pp 4 – 7.
3. Imsand*, E.S., Evans, G., Dozier, G., Hamilton, J.A., Jr., (30%) *Using Genetic Algorithms to Aid in a Vulnerability Analysis of National Missile Defense Simulation Software*, *Journal of Defense Modeling and Simulation*, vol. 1, no. 4, October 2004, pp 215 – 224.
4. Hamilton, J.A., Jr., (75%) Greaney, K.J., Evans, G., *Defining a Process for Software Vulnerability Assessments*, *Crosstalk, The Journal of Defense Software Engineering*, vol. 16, No. 11, November 2003, pp 22 – 25.
5. Hamilton, J.A., Jr. (45%), Rosen, J.D. and Summers, P.A., *An Interoperability Roadmap for C4ISR Legacy Systems*, *Acquisition Review Quarterly*, vol. 28, Winter 2002, pp 17 – 31.
6. Bryan, J.D., Deal, J.C., Hamilton, J.A., Jr. (40%), *Army Enterprise XXI*, *Army RD&A*, September-October 1998, pp 18 - 20.
7. Hamilton, J.A., Jr. (100%), *Why Programming Languages Matter*, *Crosstalk, The Journal of Defense Software Engineering*, vol. 10, no. 12, December 1997, pp 4 - 6.

8. Arnette, J.P. and Hamilton, J.A., Jr. (75%), *Open Architectures for Diverse Missions: Opening Windows for the Department of Defense*, Crosstalk, The Journal of Defense Software Engineering, vol. 10, no. 11, November 1997, pp 3 - 7.
9. Hamilton, J.A., Jr., (50%) Ratterree, G.R., Brutch, P.B., Pooch, U.W., *Public Domain Tools for Modeling and Simulating Computer Networks*, Simulation, vol. 67, No. 3, September 1996, pp 161 - 169.
10. Hamilton, J.A., Jr., (60%) Cook, D.A., Pooch, U.W., *A Software Engineering Perspective on Distributed Simulation*, Crosstalk, The Journal of Defense Software Engineering, vol. 9, no. 2, February 1996, pp 13 - 15.
11. Hamilton, J.A., Jr., (60%) Ratterree, G.R., Pooch, U.W., *A Toolkit for Monitoring the Utilization and Performance of Computer Networks*, Simulation, vol. 64, No. 5, May 1995, pp 297 - 301.
12. Hamilton, J.A., Jr., (70%) et. al. *Getting Inside Your Local Area Network: Tools, Techniques and Resources*, Crosstalk, The Journal of Defense Software Engineering, vol. 8, no. 1, January 1995, pp 19 - 23.

Refereed Conference Papers

1. Britt*, W., Gopaldaswamy*, S., Hamilton, J.A., Jr., (20%) Dozier, G., Chang, K., *Computer Defense Using Artificial Intelligence*, 2007 ACM/SCS Simulation Software Security Symposium, Spring Simulation Multiconference, Norfolk, Va., 25 – 29 March, 2007.
2. Richardson*, K. P., Hamilton, J.A., Jr. (30%), Carlisle, M.C., *A Performance Analysis of the SPRiNG Protocol Through Simulation*, 2007 ACM/SCS Simulation Software Security Symposium, Spring Simulation Multiconference, Norfolk, Va., 25 – 29 March, 2007.
3. Tevis*, J.E., Hamilton, J.A., Jr. (30%), *A Security-Centric Ring-Based Software Architecture*, 2007 ACM/SCS DODAF Architecture Framework Modeling, Spring Simulation Multiconference, Norfolk, Va., 25 – 29 March, 2007.
4. Amer*, Suhair H., Hamilton, J.A., Jr. (50%), *Simulation Wireless Routing in a Healthcare Environment*, 2007 International Conference on Health Sciences Simulation, San Diego, Calif., 14 – 18 January 2007, pp 65 – 72.
5. Carlisle, M.C., Hamilton, J.A., Jr. (30%), *Integrating Ada 2005 into Visual Studio 2005*, ACM SIGAda 2006, Albuquerque, NM, 12 – 16 November 2006.
6. Carlisle, M.C., Humphries, J.W., Hamilton, J.A., Jr. (30%), *Safely Redistributing Untrusted Code using .NET*, 7th IEEE Workshop on Information Assurance, US Military Academy, West Point, N.Y., 21 – 23 June 2006.
7. Tevis, J.J. and Hamilton, J.A., Jr. (30%), *Static Analysis of Anomalies and Security Vulnerabilities in Executable Files*, 43rd Annual ACM Southeast Conference, Kennesaw, Ga., 10 – 12 March 2006.
8. Constance*, S., Umphress, D.A., Chapman, R.O., Hamilton, J.A., Jr. (15%), *Modeling Wireless Communication of UAV Ground Station Components*, 2005 Huntsville Simulation Conference, Huntsville, Ala. 26 – 27 Oct 2005.
9. Hunt*, A.A., Hamilton, J.A., Jr. (30%), *An Evaluation of Wireless Security Issues for UAV Ground System Components*, 2005 Huntsville Simulation Conference, Huntsville, Ala. 26 – 27 Oct 2005.
10. Amer*, Suhair H., Hamilton, J.A., Jr. (50%) *Source Initiated On-Demand Routing Protocols Performance Evaluation Using OPNET Package*, 17th European Simulation Symposium, Marseille, France, 20 – 22 October 2005.
11. Hamilton, J.A., Jr. (100%) *Network Simulation for Executable Architectures*, International Workshop on Modeling & Applied Simulation, Bergeggi, Italy, 16 – 18 October 2005.

12. Fletcher*, H.W., Richardson*, K., Carlisle, M.C., Hamilton, J.A., Jr. (25%), *Simulation Experimentation with Secure Overlay Services*, Summer Computer Simulation Conference, Philadelphia, Pa., 24 – 28 July 2005.
13. Amer*, Suhair H., Humphries, J.W., Hamilton, J.A., Jr. (30%) *Survey: Security in the System Development Life Cycle*, 6th IEEE Workshop on Information Assurance, US Military Academy, West Point, N.Y., 15 – 17 June 2005.
14. Box*, J.D., Hathcock*, A. Hunt*, A. Humphries. J.W., and Hamilton, J.A., Jr. (25%), *Simulation Strategic Firewall Placement*, SCS Spring Simulation Multiconference, San Diego, CA, 3 – 7 April 2005.
15. Fletcher*, H.W., Richardson*, K., Carlisle, M.C., Hamilton, J.A., Jr. (25%), *Evaluating Secure Overlay Services Through OPNET Simulation*, SCS Spring Simulation Multiconference, San Diego, CA, 3 – 7 April 2005.
16. Eoff*, B., Hunt*, A., Evans, G. and Hamilton, J.A., Jr. (25%), *The Theory and Practice of Vulnerability Analysis of Simulation Software*, Huntsville Simulation Conference, Huntsville, AL, 20 – 21 Oct. 2004.
17. Hamilton, J.A., Jr., (80%) Greaney, K.J., Evans, G., *Simulation Software Vulnerability Assessment for Coalition Interoperability*, European Simulation Interoperability Workshop, Edinburgh, Scotland, June 28 – July 1 2004.
18. Sachitano*, A., Chapman, R.O., Hamilton, J.A., Jr. (40%), *Security in Software Architecture: A Case Study*, IEEE Workshop on Information Assurance, US Military Academy, West Point, N.Y., June 2004.
19. Tevis*, J.E., Hamilton, J.A., Jr., (15%) *Methods For The Prevention, Detection And Removal of Software Security Vulnerabilities*, 42nd Annual ACM Southeast Conference, Huntsville, Ala., April 2-3, 2004.
20. Calagaz*, L.J., Chatam*, J.W., Eoff*, B., Hamilton, J.A., Jr. (10%), *On the Current State of Transport Layer Protocols in Mobile Ad hoc Networks*, 42nd Annual ACM Southeast Conference, Huntsville, Ala., April 2-3, 2004.
21. Hamilton, J.A., Jr., (75%) Yilmaz, L., *Modeling Bilateral Interoperability Through Command and Control Architecture*, Military, Government and Aerospace Simulation, ASTC, Arlington, Va. 18 – 22 April 2004.
22. Chatam*, J. W., Rice*, J. and Hamilton, J.A., Jr. (20%), *Using Simulation to Analyze Denial of Service Attacks*, Applied Telecommunications Symposium, ASTC, Arlington, Va. 18 – 22 April 2004.
23. Yilmaz, L., Hamilton, J.A., Jr. (15%), *Modular Compositional Validation of Protocol Conflicts for Network Interoperability*, Design, Analysis, and Simulation of Distributed Systems, ASTC, Arlington, Va. 18 – 22 April 2004.
24. Norris*, V.A., Hamilton, J.A., Jr., (10%) *Simulation of an Infrastructure Wireless Local Area Network*, 2003 Huntsville Simulation Conference, Huntsville, Ala. 28 – 31 Oct 2003.
25. Hamilton, J.A., Jr. (100%), *Developing Secure Simulation Software For Multinational Use*, 2003 Fall Simulation Interoperability Workshop, Orlando, Fla., 14 – 19 Sept 2003.
26. Hamilton, J.A., Jr. (75%), Catania, G.A., *A Practical Application of Enterprise Architecture for Interoperability*, 2003 International Conference on Information Systems Engineering, SCS Summer Simulation Multiconference, Montreal, pp 183 – 188, 20 – 24 July 2003.
27. Hamilton, J.A., Jr. (100%), *Security Vulnerabilities in Command and Control Interoperability*, Proceedings of the 2003 IEEE Workshop on Information Assurance, pp 164 – 169, US Military Academy, West Point, N.Y., 18 – 20 June 2003.
28. Imsand*, E.S., Sachitano*, A.C., Hamilton, J.A., Jr. (15%), *Reverse Engineering Vulnerabilities in Simulation Software*, Advanced Simulation Technologies Conference, Orlando Fla., 30 Mar. – 3 Apr., pp 99-104, 2003.
29. Peters*, M.P., Chatam*, W., Hamilton, J.A., Jr., (20%) *Simulation Exploitation Using Open Source Information*, Advanced Simulation Technologies Conference, Orlando Fla., pp 105-

- 110, 30 Mar. – 3 Apr. 2003.
30. Eoff*, B., Hamilton, J.A., Jr., (15%) *Vulnerability of Simulation Executables*, Advanced Simulation Technologies Conference, Orlando Fla., pp, 111-115, 30 Mar. – 3 Apr. 2003.
 31. Hamilton, J.A., Jr. (100%), *Simulation Vulnerability Analysis*, 2002 Huntsville Simulation Conference, Huntsville, Ala., 8 – 10 Oct. 2002.
 32. Hamilton, J.A., Jr. (80%), Melear, J., Endicott, G., *C2 Interoperability: Simulation, Architecture and Information Security*, 7th International Command and Control Research and Technology Symposium, Quebec City, QC, Canada, 16 – 20 Sep 2002.
 33. Hamilton, J.A., Jr. (100%), *Simulation to Support Security Issues Relating to Interoperability*, 2002 Summer Computer Simulation Conference, San Diego, Calif., 14 – 19 July, 2002.
 34. Umphress, D.A. and Hamilton, J.A., Jr., (15%), *Software Process as a Foundation for Teaching, Learning, and Accrediting*, Computer and Software Engineering Education and Training Conference, Cincinnati, OH, Feb. 25 – 27 February 2002.
 35. Hamilton, J.A., Jr., (100%) *Modeling a Concurrent Theory of Combat: A Parallel Processing Approach*, Advanced Simulation Technologies Conference, San Diego, CA, pp 107 – 113, April 2002.
 36. Hamilton, J.A., Jr., (70%) Ruocco, A.S. and Umphress, D.A. *Problem Solving in the Senior CS Capstone Sequence: Putting Engineering into Software Engineering*, American Society of Engineering Educators (ASEE) Southeast Conference, Gainesville, FL, 7 – 9 April 2002.
 37. Hamilton, J.A., Jr., (70%), Sanders, P., Melear, J.M. and Endicott, G., *C2 Interoperability, A Force Multiplier for Joint/ Combined Operations and Homeland Security*, Command and Control Research Technology Symposium, Naval Postgraduate School, Monterey, Calif., 11 – 13 June 2002.
 38. Hamilton, J.A., Jr., (100%) *Simulation to Support Security Issues Related to System Interoperability*, 2002 Summer Computer Simulation Conference, San Diego, Calif., July 14 – 18 2002.
 39. Hamilton, J.A., Jr., (60%) Murtagh, J.L., *Extending Interoperability Via Software Architecture*, 2000 Command and Control Research and Technology Symposium, June 26-28, 2000, Monterey, CA.
 40. Murtagh*, J.L., Hamilton, J.A., Jr. (30%), *Teaching a Real-World Software Design Approach Within an Academic Environment*, 2000 American Society for Engineering Education Annual Conference, June 18 - 21, 2000, Saint Louis, Mo.
 41. Murtagh*, J.L., Hamilton, J.A., Jr. (30%), *Using Modeling to Explain Parallel Programming Constructs*, 2000 Advanced Simulation Technologies Conference, Washington, D.C., April 16 - 20, 2000, pp 261 - 264.
 42. Hamilton, J.A., Jr. (70%), Deal, J.C., Grobmeier, J.R., *Network Modeling and Simulation with Mixed Traffic Data Sources*, Conference on Communication Networks and Distributed Systems Modeling and Simulation, San Diego, Ca., 23 - 27 Jan., 2000, pp 99 - 104.
 43. Hamilton, J.A., Jr. (60%), Murtagh*, J.M., Deal, J.C., *A Basis for Joint Interoperability*, Command and Control Research and Technology Symposium, Naval War College, Newport, R.I., 29 June - 1 July, 1999, pp 1067 - 1076.
 44. Hamilton, J.A., Jr. (70%), Murtagh*, J.M., Deal, J.C., *Simulation-Based Requirements Engineering for Army Enterprise XXI*, Advanced Simulation Technologies Conference Proceedings, San Diego, Calif., 11 - 15 April, 1999, pp 11 - 16.
 45. Hamilton, J.A., Jr. (75%), Ransbottom, J.S., Davis, N.D., *An Integrated Approach to Network Simulation*, Advanced Simulation Technologies Conference Proceedings, San Diego, Calif., 11 - 15 April, 1999, pp 103 - 108.
 46. Murtagh*, J.L., Hamilton, J.A., Jr. (50%), *A Comparison of Ada and Pascal in an Introductory Computer Science Course*, SIGAda '98 Proceedings, Nov 8 - 12, Washington, D.C., pp 75 - 80.

47. Hamilton, J.A., Jr. (65%), Ruocco, A.S., *Implementation Issues for CS Majors and Non-Majors in a Senior CS Capstone Sequence*, Frontiers in Education '98, Nov 4 - 7, 1998, Tucson, Ariz., pp 1012 - 1015.
48. Sobiesk, E., Hamilton, J.A. (20%), Jr., Marin, J.A., Brown D.E., Gini, M., *Tracking Multiple Objects in Terrain*, 1998 IEEE Conference on Systems, Man, and Cybernetics, Oct 11 - 14, La Jolla, Calif., pp 2842-2847.
49. Hamilton, J.A., Jr. (100%), *Achieving HLA Compliance VIA the Joint Technical Architecture - Army*, Summer Computer Simulation Conference, July 19 - 22, 1998, Reno, Nev., pp 509 - 513.
50. Hamilton, J.A., Jr. (75%), Lane, W.D. *Network Simulation: Bridging CS and EE Programs*, Proceedings OPNETWORK '98, May 25 - 30, 1997, Washington, D.C. (Electronic Proceedings: contact <http://www.mil3.com>.)
51. Hamilton, J.A., Jr. (100%) *Software Interoperability and Distributed Simulation*, 1998 Advanced Simulation Technologies Conference April 5 - 9, 1998, Boston, Mass., pp 151 - 156.
52. Hamilton, J.A., Jr. (70%), Sobiesk, E., Deal, J.C., *Multilevel Simulation of Force XXI Fire Support Operations*, (invited) 1997 IEEE International Conference on Systems, Man and Cybernetics, Oct. 12 - 15, 1997, Orlando, Fla., pp 2601 - 2606.
53. Hamilton, J.A., Jr. (100%), *Enabling Technologies for a Global Combat Support System*, 1997 Summer Computer Simulation Conference, July 13 - 17, 1997, Arlington, Va., pp 771 - 775.
54. Deal, J.C., Hamilton, J.A., Jr. (25%), Caudle, J., *Unknown Lands and Uncharted Waters, The Army Enterprise Architecture*, 3rd International Symposium on Command and Control Research and Technology, June 17 - 20, 1997, National Defense University, Fort McNair, Washington, D.C., pp 426 - 449.
55. Hamilton, J.A., Jr. (100%), *Representing Network Traffic with Mixed Resolution Simulation*, Proceedings OPNETWORK '97, May 28 - 30, 1997, Washington, D.C., pp 588 - 592.
56. Hamilton, J.A., Jr. (70%), Marti, W.F., Pooch, U.W., *Multilevel Multiresolution Simulation of Local Area Networks*, Ninth Annual Software Technology Conference, April 27 - May 2, 1997, Salt Lake City, Utah.
57. Hamilton, J.A., Jr. (70%), Deal, J.C., Jansen, B.J., *Tactical Network Simulation in the US Army*, 1997 Simulation Multiconference Proceedings, April 6 - 10, 1997, Atlanta, Ga., pp 51 - 55.
58. Jansen, B.J., Hamilton, J.A., Jr. (30%), Pooch, U.W. *Modeling & Simulating an Army Information Support Structure*, 1997 Simulation Multiconference Proceedings, April 6 - 10, 1997, Atlanta, Ga., pp 59 - 65.
59. Hamilton, J.A., Jr. (60%), Ruocco, A.S., *Distributed Simulation Techniques using Conventional Simulation Languages*, 1997 Simulation Multiconference Proceedings, April 6 - 10, 1997, Atlanta, Ga., pp 66- 71.
60. Brutch, P.B., Hamilton, J.A., Jr. (30%), Nash, D.A., Marti, W.F., Pooch, U.W., *A Formal Approach for the Simulation of Local Area Networks*, Conference on Communication Networks and Distributed Systems Modeling and Simulation, Jan 12 - 15, 1997, Phoenix, Az., pp 3 - 8.
61. Hamilton, J.A., Jr. (60%), Cook, D.A., *Ada Training and Education in the US Army and US Air Force*, Tri-Ada 96 Proceedings, Dec 3 - 7 1996, Philadelphia, Pa., pp 151 - 155.
62. Marti, W.F., Hamilton, J.A., Jr. (30%), Pooch, U.W., *Packet Tracing: A New Paradigm for Teaching Computer Network Courses*, SIGCSE/SIGCUE Joint Conference on Integrating Technology into Computer Science, June 2- 6 1996, Barcelona, Spain.
63. Hamilton, J.A., Jr. (65%), Marti, W.F., Pooch, U.W., *Building Distributed Systems*, Eighth Annual Software Technology Conference, April 21 - 26, 1996, Salt Lake City, Utah.

64. Marti, W.F., Hamilton, J.A., Jr. (30%), *Packet Tracing: A Workshop on Teaching and Understanding Computer Networks*, Proceedings, ACM Special Interest Group in Computer Science Education Conference, Feb. 15 - 17, 1996, Philadelphia, Pa.
65. Hamilton, J.A., Jr. (75%), Bachus, B.D., Pooch, U.W., *Integrating Distributed Simulation into Force XXI Training*, 1996 SCS Simulation Multiconference Proceedings, April 8 - 11, 1996, New Orleans, La., pp 8 - 13.
66. Hamilton, J.A., Jr. (90%), Pooch, U.W., *An Open Simulation Architecture for Force XXI*, 1995 Winter Simulation Conference Proceedings, Dec 3 - 6, 1995, Arlington, Va.
67. Hamilton, J.A., Jr. (80%), Cook, D.A., Pooch, U.W., *Distributed Simulation in Ada 95*, Tri-Ada '95 Proceedings, Nov 5 -10, 1995, Anaheim, Calif., pp 105 - 112.
68. Hamilton, J.A., Jr. (90%), Pooch, U.W., *A Survey of Object-Oriented Methodologies*, Tri-Ada '95 Proceedings, Nov 5 -10, 1995, Anaheim, Calif., pp 226 - 233.

Video

Hamilton, J.A., Jr., 2000 *Joint Technical Architecture*, Air Force Institute of Technology, Wright-Patterson AFB, OH, 30 minutes.

Keynote Addresses

1. *Simulation Security: Securing the Future of Simulation*, 17th European Simulation Symposium, Oct 20 - 23 2005, Marseille, France.
2. *Defense Interoperability: Software Engineering Comes of Age in the DoD*, interoperability keynote address, Software Technology Conference, April 29 - May 4, 2001, Salt Lake City, Utah.
3. *Programming Languages Do Make a Difference*, keynote address, ACM Tri-Ada '97 Conference, Nov 9 - 13 1997, St. Louis, Mo.
4. *Beyond the Mandate: Ada in the 21st Century*, keynote address, 14th Washington Ada Symposium, June 25 - 26, 1997, Washington, D.C.
5. *Implications of the NRC Report for the Department of Defense*, keynote address, 11th Annual Ada Software Engineering Education Symposium, Monmouth University, N.J., June 12 - 13 1997.

FUNDED RESEARCH GRANTS

Qualified Auburn University to conduct Top Secret Research: My research was responsible for Auburn becoming qualified to conduct classified research at the Top Secret for the U.S. Government.

1. \$100,000.00 "MDA Software Vulnerability Analysis," Grant from Missile Defense Agency to study simulation software vulnerabilities (Oct 2006 – Sept 2007) – (PI Hamilton 100%).
2. \$241,000.00 "Data Dissemination from Small Army UAV's," Army AMCOM, (Oct 2006 – Sept 2007) (PI Chapman, Co-PI Hamilton 15%, Co-PI Umphress, Co-PI Crouse).

3. \$105,902.36 “DOD Information Assurance Scholarship Program,” Grant from the National Security Agency. (Sept 2006 – Sept 2008) (PI Hamilton 60%, Co-PI Chang 40%).
4. \$30,000.00 2006 DOD Information Assurance Capacity Building for Auburn University Proposal. Grant from the National Security Agency to conduct outreach to Redstone Arsenal and for new curriculum development. (Sept 2006 – Sept 2007) (PI Hamilton 100%).
5. \$1,500,000.00 NSF #0621307 SFS: Scholarship Partnership with Alabama State University and Tuskegee University. (Sept 2006 – Sept 2009) (PI Hamilton, 50%, Co-PI Chang, 20%, Co-PI Dozier 10%, Co-PI Wang, 10%, Co-PI Gilbert, 10%).
6. \$35,589.72 US Army Space and Missile Defense Command, “Secure Wireless for Future Operational Capability Tactical Operations Center II.” (Feb 2006 – Sept 2006) (PI Hamilton 50%, Co-PI Wu 50%).
7. \$3000.00 British Aerospace Corporate Gift, Sponsorship of Auburn ACM Programming Contest Team, Nov 2005.
8. \$100,000.00 NSF #0516432 Collaborative Research: Building Information Assurance Education Capacity with Alabama State University Proposal. (Sept 2005 – Sept 2006) (PI Hamilton, 50%, Co-PI Chang, 30%, Co-PI Dozier 10%, Co-PI Wang, 10%).
9. \$77,457.54 2005 DOD Information Assurance Capacity Building for Auburn University Proposal. Grant from the National Security Agency to conduct outreach to Redstone Arsenal, Alabama State University, US Air Force Academy and for new curriculum development. (Sept 2005 – Sept 2006) (PI Hamilton 60%, Co-PI Chang 40%).
10. \$3000.00 Scitor Corporate Gift, Sponsorship of Auburn Digital Combat Exercise Team, Mar 2005.
11. \$630,000.00 Army AMCOM “Wireless Network Software for Unmanned Aerial Vehicles”, (Mar 2005 – Sept 2007) (PI Chapman, Co-PI Hamilton 15%, Co-PI Umphress, Co-PI Wu).
12. \$400,000.00 “UAV Wireless Security,” Grant from US Army Program Manager Unmanned Aerial Vehicles, (Mar 2005 – Sept 2005) PI – Chapman, Co-Pi Umphress, Co-PI Wu, Co-PI Hamilton (25%).
13. \$41,352.00 “Distance Learning to Redstone Arsenal,” Grant from the National Security Agency to develop and conduct Information Security (INFOSEC) qualification courses (Jul 2004 – Sept 2005) – PI Hamilton (100%).
14. \$100,000.00 “U.S. Air Force Academy Research, Development, and Education Support,” Grant from the U.S. Air Force Academy to study security architecture and denial of service attacks. (Aug 2004 – Sept 2005) – PI Hamilton (100%).
15. \$270,000.00 “MDA Vulnerability Analysis,” Grant from Missile Defense Agency to study simulation vulnerabilities (Sept 2003 – Sept 2004) - PI Hamilton (100%)

16. \$100,000.00 “MDA Vulnerability Analysis,” Grant from Missile Defense Agency to study simulation vulnerabilities (Sept 2003 – Sept 2005) - PI Hamilton (100%)
17. \$25,935.00 Research Grant from the Space and Naval Warfare Systems Command to study command system interoperability (June 2002 – Sept 2003) - PI Hamilton (100%)
18. \$5000.00 Equipment Grant from the Space and Naval Warfare Systems Command to study command system interoperability (Oct 2001) - PI Hamilton (100%)
19. \$250,000.00 Grant from the US Army Office of the Director, Information Systems for Command, Control, Communications and Computers (DISC4) to incorporate network simulation into the USMA Electrical Engineering and Computer Science curriculum (1998) - PI Hamilton (100%)
20. \$50,000.00 Research Grant from the Defense Information Systems Agency for Faculty Development (1997) - PI Hamilton (100%)

OUTREACH

- Conducted 1 week NSA Senior System Manager Qualification Course in Huntsville, Ala., Jul. 2006.
- Conducted 1 week NSA Information Security (INFOSEC) Qualification Course in Huntsville, Ala., Feb. 2005.
- Chairman, 2004 and 2005 Ph.D. Seminar, Southeast Software Engineering Conference, Huntsville, Ala.
- Coach/Judge, 2004 and 2005 Auburn Digital Combat Exercise Competitive Team, Southeast Software Engineering Conference, Huntsville, Ala.
- Coach, 2003, 2004, 2005 and 2006 Auburn ACM programming contest team.

PROFESSIONAL ASSOCIATIONS

- Society for Modeling & Computer Simulation International (Senior Member)
 - Society President 2006 - 2008
 - Society Senior Vice President 2004 - 2006
 - Society Secretary 2002 - 2004
- Institute of Electrical and Electronics Engineers (Senior Member)
 - IEEE Computer Society
- Program Committee, 2001 – 2007 IEEE, Int. Workshop on Rapid System Prototyping
- Program Committee, 2006 – present IEEE
- Association for Computing Machinery
 - Secretary-Treasurer, 2004 – 2007, Special Interest Group Simulation (SIGSIM)
- Conference Committee, Simulation Interoperability Standards Organization (SISO) 2004 – 2006.
- Vice Chair, Professional Development Committee, Alabama Modeling and Simulation Council 2004 – 2006.
- Chairman, Auburn University Council of the Modeling and Simulation Network 2003 – present.
- Elected, Board of Directors, Alabama Modeling and Simulation Council (2006 – 2008).
- Life Member, Phi Kappa Phi (National Honor Society)
- Member, Upsilon Pi Epsilon (National Honor Computer Science Fraternity)
- Member, Phi Rho Pi (National Honor Speech Fraternity)
- Alumni, National Society of Scabbard & Blade

- Graduated with Distinction, Naval War College
- Life Member, Naval War College Foundation
- Life Member, Disabled American Veterans
- US Army Forces Command Fourth Estate Award for Outstanding Military Journalism

EDITOR/REVIEWER

- Consulting Editor, *Journal of Defense Modeling and Simulation*, 2003 – present.
- Member, Editorial Board, *Crosstalk: The Journal of Defense Software Engineering*, 2006 – present.
- Referee, *Simulation Journal*, 1999 – 2001.
- Reviewer, Software Technology Conference, 1994-2000.
- Referee, Special Interest Group on Computer Science Education, 1993-1996.

CONFERENCE LEADERSHIP

- Program Committee, IEEE Information Assurance Workshop, 2006 – present
- Program Committee, IEEE Rapid Systems Prototyping Workshop, 2000 – present.
- Conference Chairman, 2006 Spring Simulation Multiconference, Huntsville, Ala.
- Conference Chairman, 2005 Spring Simulation Multiconference, San Diego, Calif.
- Conference Chairman, 2004 Adv. Simulation Technologies Conference, Washington, D.C.
- Conference Vice-Chairman, 2003 Adv. Simulation Technologies Conference, Orlando, Fla.
- Vice-Chair 2003 SE Section (Software Engineering) American Society for Engineering Education, Macon, Ga.
- Conference Committee, 2001 Conference on Software Engineering and Training Symposium, Charlotte, N.C.
- Conference Chairman, 1999 Ada Software Engineering Education Team Conference, US Air Force Academy.
- Conference Chairman, 1998 Ada Software Engineering Education Team Conference, US Naval Postgraduate School.
- Conference Committee, 1997 Tri-Ada Conference, St. Louis, Mo.