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EDUCATION

- Doctor of Philosophy, Computer Science, Mar. 1987. The Ohio State University, Columbus, Ohio.
- Master of Science, Computer Science, June 1982. Michigan State University, East Lansing, Michigan.
- Bachelor of Arts, Mathematics, May 1980. Boston College, Chestnut Hill, Massachusetts.

ACADEMIC EXPERIENCE

- Associate Department Head, Computer Science & Engineering Department, The University of Connecticut, Storrs, Connecticut, July 2003 to August 2008.
- Full Professor, Computer Science & Engineering Department, The University of Connecticut, Storrs, Connecticut, Aug. 2001 to present.
- Associate Professor, Computer Science & Engineering Department, The University of Connecticut, Storrs, Connecticut, Sept. 1993 to Aug. 2001.
- Assistant Professor, Computer Science & Engineering Department, The University of Connecticut, Storrs, Connecticut, Sept. 1987 to Aug. 1993.
- Adjunct Research Instructor, Department of Computer Science, Naval Postgraduate School, , California 93943, Oct. 1983 to June 1987. Responsible for managing and directing a 6-12 person research project.

INDUSTRIAL CONSULTING

- Serebrum Corporation, Iselin, NJ, received an NSF SBIR Phase I titled: BrainStorm - Collaborative Customer Requirements Elicitation for Distributed Software Development. Design consultant in the area of role-based access control and security for web-based applications, July 1, 2006 to Jan. 31, 2007.
- Getronics Corporation, New York City, NY. Design and development expert in the areas of object-oriented design, UML, software architectural design, client/server multi-tier architectures, and technology assessment, Nov. 1999 to June 2005.
- Pitney Bowes, Inc., Shelton, CT, Design and development expert in the areas of object-oriented: design, software engineering, databases, and programming, for a client-server system for postage over the Internet, May 1995 to Dec. 1995.

HONORS AND AWARDS

- UConn School of Engineering Outstanding Teaching Award, April 2004.
- Elected as Member, Connecticut Academy of Science & Engineering, May 2007.

Prof. Steven A. Demurjian, Sr.
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PUBLICATIONS

Edited Collections, Monograph, Dissertation

1. *Software Engineering: Effective Teaching and Learning Approaches and Practice,* Ellis, H., Demurjian, S., and Naveda, F. (eds). IGI Global. Collection of 20+ articles with publication is 2008.
2. *Engineering Secure Software Systems,* Demurjian, S., Gokhale, S., Ellis, H., Michel L., and Pavlich-Mariscal, J., (eds) IGI Global. Collection 20-30 articles with planned publication in January 2010.
3. *Database Security, IX: Status and Prospects*, Spooner, D., Demurjian, S., and Dobson, J. (eds.), Springer, Jan. 1996.
4. Demurjian, S., Hsiao, D., and Marshall, R., *Design-Analysis and Performance-Evaluation Methodologies for Database Computers,* monograph, Prentice-Hall, Inc., May 1987.
5. Ph.D. Dissertation: "The Multi-Lingual Database System - A Paradigm and Test-Bed for the Investigation of Data-Model Transformations, Data-Language Translations and Data-Model Semantics"; Co-Advisors: David K. Hsiao and Douglas S. Kerr.

Journal Articles and Book Chapters

1. Demurjian, S., Ren, H., Berhe, S., Devineni, M., Vegad, S., and Polineni, K., "Improving the Information Security of Collaborative Web Portals via Fine-Grained Role-Based Access Control," accepted, to appear in *Handbook of Research on Web 2.0, 3.0 and X.0: Technologies, Business and Social Applications*, S. Murugensan (ed.), IGI Global, 2009.
2. Agresta, T., Crowell, R., Cook, M., Fifield, J., Demurjian, S., Vegad, S., and Polineni, K., "Using a Collaborative Web Portal for Making Health Information Technology (HIT) Decisions," accepted, to appear in *Handbook of Research on Web 2.0, 3.0 and X.0: Technologies, Business and Social Applications*, S. Murugensan (ed.), IGI Global, 2009.
3. Demurjian, S., "Granular Computing: Information Models for Granular Computing," accepted, to appear in *Encyclopedia of Complexity and Systems Science*, R. Meyers (Editor-in-Chief), Granular Computing Section, T. Y. Lin (ed.), Springer, 2008.
4. Demurjian, S. and D. Needham, "Experiences in Project-Based Software Engineering - What Works, What Doesn't," accepted, to appear in: *Software Engineering: Effective Teaching and Learning Approaches and Practice*, H. Ellis, S. Demurjian, and F. Naveda (eds.), IGI Global, 2008.
5. Ammar, R., Demurjian, S., Greenshields, I., Pattipati, K., and Rajasekaran, S., "Analysis of Heterogeneous Data in Ultrahigh Dimensions," in *Emergent Information Technologies and Enabling Policies for Counter Terrorism.* R. Popp and J. Yen (eds.), IEEE Press Series on Computational Intelligence, D. Fogel (series ed.), 2006.
6. Pavlich-Mariscal, J., Michel, L., and Demurjian, S., "A Framework for Composable Security Definition, Assurance, and Enforcement, " *Satellite Events at the MoDELS 2005 Conference, ModELS 2005 International Workshops, Doctoral Symposium, Educators Symposium,* LNCS 3844, Springer, Oct. 2005, pp. 353-354.
7. Pavlich-Mariscal, J., Doan, T., Michel, L., Demurjian, S., and Ting, T.C., "Role Slices: A Notation for RBAC Permission Assignment and Enforcement," *Research Directions in Data and Applications Security XIX,* S. Jajodia (ed.), LNCS 3654, Springer, July 2005, pp. 40-53.
8. Phillips, C., Demurjian, S., and Bessette, K., "A Service-Based Approach for RBAC and MAC Security," in *Service-Oriented Software System Engineering: Challenges and Practices*, Z. Stojanovic and A. Dahanayake (eds.), Idea Group, Apr. 2005, pp. 317-339.
9. Needham, D., Caballero, R., Demurjian, S., Eickhoff, F., Mehta, J., and Zhang, Y., "A Reuse Definition and Analysis Framework for UML," in *Advances in UML and XML based Software Evolution*, H. Yang (ed.), Idea Group, Apr. 2005, pp. 286-307.

10. Demurjian, S., "Traditional Software Design," *Computer Science Handbook,* 2nd edition, CRC Press, Inc., A. Tucker (ed.), June 2004, pp. 103-1 - 103-18; CD-ROM Edition, Nov. 2004.
11. Demurjian, S. and Pia, P., "Object-Oriented Software Design," *Computer Science Handbook,* 2nd edition, CRC Press, Inc., A. Tucker (ed.), June 2004, pp. 104-1 - 104-20; CD-ROM Edition, Nov. 2004.
12. Demurjian, S., Bessette, K., Doan, T., and Phillips, C., "Concepts and Capabilities of Middleware Security," in *Middleware for Communications,* Q. Mohammed (ed.), John-Wiley, Aug. 2004, pp. 211-236.
13. Doan, T., Demurjian, S., Ting, T.C., and Phillips, C., "RBAC/MAC Security for UML," *Research Directions in Data and Applications Security XVIII,* C. Farkas and P. Samarati (eds.), Vol. IFIP 144, 2004, Springer, July 2004, pp. 189-204.
14. Phillips, C., Demurjian, S., and Ting, T.C., "Safety and Liveness for an RBAC/MAC Security Model," in *Database and Applications Security XVII: Status and Prospects,* S. di Vimercati, I. Ray, and I. Ray, (eds.), Vol. IFIP 142, Springer, July 2004, pp. 316-329.
15. Liebrand, M., Ellis, H., Phillips, C., Demurjian, S., Ting, T.C., and Ellis, J., "Role Delegation for a Resource-Based Security Model," in *Research Directions in Data and Applications Security,* E. Gudes and S. Shenoi (eds.), Vol. IFIP 128, Springer, July 2003, pp. 37-48.
16. Demurjian, S., Ting, T.C., Balthazar, J., Ren, H., Phillips, C., and Barr, P., "A User Role-Based Security Model for a Distributed Environment," in *Data and Applications Security: Developments and Directions,* B. Thuraisingham, R. van de Riet, K. Dittrich and Z. Tari (eds.), Vol. IFIP 73, Springer, 2001, pp. 259-270.
17. Demurjian, S., He, Y., Ting, T.C., and Saba, M., "Software Agents for Role Based Security," in *Research Advances in Database and Information Systems Security,* V. Atluri and J. Hale (eds.), Vol. IFIP 43, Springer, May 2000, pp. 79-93.
18. Bastarrica, M., Demurjian, S., and Shvartsman, A., "A Framework for Architectural Specification of Distributed Object Systems," *Studia Informatica (Intl. J. of Informatics),* Special Issue, Vol. I, 1999, pp. 127-148.
19. Smarkusky, D., Demurjian, S., Bastarrica, M, and Ting, T.C., "Role-Based Security and Java," in *Database Security, XII: Status and Prospects,* S. Jajodia (ed.), Vol. IFIP 14, Springer, Apr. 1999, pp. 205-219.
20. Demurjian, S., Ting, T.C., and Reisner, J., "Software Architectural Alternatives for User Role-Based Security Policies," in *Database Security, XI: Status and Prospects*, T.Y. Lin and X. Qian (eds.), Springer, Apr. 1999, pp. 247-261.
21. Demurjian, S., and Ting, T.C., "Towards a Definitive Paradigm for Security in Object-Oriented Systems and Applications," *J. of Computer Security*, Vol. 5, No. 4, 1997, pp. 341-382.
22. Demurjian, S., Ting, T.C., Price, M., and Hu, M.-Y., "Extensible and Reusable Role-Based Object-Oriented Security," in *Database Security, X: Status and Prospects*, P. Samarati and R. Sandhu (eds.), Springer, Apr. 1997, pp. 288-307.
23. Needham, D., Peters, T., and Demurjian, S., "Object-Oriented Design Abstractions and Code Generation Front Ends to CAD Systems," in *Product Modeling for Computer Integrated Design and Manufacture*, M. Pratt, R. Sriram, and M. Wozny (eds.), Chapman Hall, 1997, pp. 43-53.
24. Demurjian, S., "Software Design," *Handbook of Computer Science & Engineering,* CRC Press, Inc., A. Tucker (ed.), 1997, pp. 108-1 - 108.32.
25. Rosiene, C., Ammar, R., and Demurjian, S., "An Evolvable and Extensible Modeling Framework for Performance Analysis," *Information and Systems Engineering J.*, Vol. 2, Nos. 3 and 4, Dec. 1996, pp. 253-276.

26. Demurjian, S., Ting, T.C., and Hu, M.-Y., "Security for Object-Oriented Databases, Systems, and Applications," *Progress in Object-Oriented Databases*, J. Prater (ed.), Ablex, Nov. 1996.
27. Peckham, J., Maryanski, F., and Demurjian, S., "Towards the Correctness and Consistency of Update Semantics in Semantic Database Schema," *IEEE Transactions on Knowledge and Data Engineering*, Vol. 8, No. 3, June 1996, pp. 503-507.
28. Demurjian, S., Daggett, T., Ting, T.C., and Hu, M.-Y., "URBS Enforcement Mechanisms for Object-Oriented Systems and Applications," in *Database Security, IX: Status and Prospects*, D. Spooner, S. Demurjian, and J. Dobson (eds.), Springer, Jan. 1996, pp. 79-94.
29. Hu, M.-Y., Demurjian, S., and Ting, T.C., "Unifying Structural and Security Modeling and Analyses in the ADAM Object-Oriented Design Environment," in *Database Security, VIII: Status and Prospects*, J. Biskup, C. Landwehr, and M. Morgenstern (eds.), North Holland, Jan. 1995, pp. 77-94.
30. Herndon, W. , Sandhu, R., and Demurjian, S., "The Standards are Coming! Standards for Security in Object-Oriented Systems," *OOPS Messenger*, Vol. 5, No. 4, 1994, pp. 92-95.
31. Demurjian, S. and Ting, T.C., "The Factors that Influence Apropos Security Approaches for the Object-Oriented Paradigm," *Security for Object-Oriented Systems,* Workshops in Computing Series, Springer, Jan. 1994*,* pp. 151-165.
32. Demurjian, S., Ting, T.C., and Thuraisingham, B., "User-Role Based Security for Collaborative Computing Environments," *J. of Multi-Media Review*, Vol. 4, No. 2, Summer 1993, pp. 40-47.
33. Hu, M.-Y., Demurjian, S., and Ting, T.C., "User-Role Based Security Profiles for an Object-Oriented Design Model," *Database Security, VI: Status and Prospects*, C. Landwehr and B. Thuraisingham (eds.), North-Holland, 1993, pp. 333-348.
34. Demurjian, S., Beshers, G., and Ting, T.C., "Programming vs. Databases in the Object-Oriented Paradigm: Towards an Understanding of Commonalities and Differences," *Information and Software Technology J.*, Vol. 34, No. 11, Nov. 1992.
35. Demurjian, S., Peters, T., Beshers, G., Ellis, H., and Nichols, G., "The (Non) Importance of a Programming Language in a Software Engineering Course," *Computer Science Education J.*, Vol. 3, No. 1, 1992, Ablex Publishing, Inc.
36. Ting, T.C., Demurjian, S., and Hu, M.-Y., "Requirements, Capabilities, and Functionalities of User-Role Based Security for an Object-Oriented Design Model," in *Database Security, V: Status and Prospects*, C. Landwehr and S. Jajodia (eds.), North-Holland, 1992, pp. 275-296.
37. Demurjian, S. and Hsiao, D., "New Directions in Database-Systems Research and Development," republished in *Tutorial: Parallel Architectures for Database Systems*, A. Hurson, L. Miller, and S. Pakzad (eds.), IEEE Computer Society Press, Jan. 1989, pp. 29-38.
38. Demurjian, S. and Hsiao, D., "Towards a Better Understanding of Data Models Through the Multi-Lingual Database System," *IEEE Transactions on Software Engineering,* Vol. 14, No. 7, July 1988, pp. 946-958.
39. Demurjian, S., Hsiao, D., and Strawser, P., "Design Analysis and Performance Evaluation Methodologies for Database Computers," in *Advances in Computers*, Vol. 25, M. Yovits (ed.), Academic Press, 1986, pp. 101-214.

Full Refereed Articles (Conferences, Workshops, Symposia)

1. Pavlich-Mariscal, J., Demurjian, S., and Michel, L., "A Framework for Component-Based Enforcement for Access Control" *accepted, to appear in Proc. of XXVII Intl. Conf. of Chilean Computer Science Society*, Nov. 2008.
2. Berhe, S., Demurjian, S., Ren, H., Devineni, M., Vegad, S., and Polineni, K., "Axon- An Adaptive Collaborative Web Portal" *Proc. of Intl. Wksp. on Adaptation and Evolution in Web Systems Engineering (AEWSE2008),* July 2008.

3. Price, M., Demurjian, S., Sen, H., Saleem, M., and Berhe, S., "Data Verification using Model-Driven Architecture," *Proc. of Model-Driven Engineering, Verification and Validation,* co-located with MODELS 2007, Oct. 2007.
4. Pavlich-Mariscal, J., Michel, L., and Demurjian, S., "Enhancing UML to Model Custom Security Aspects," *Proc. of 11th Intl. Wksp. on Aspect-Oriented Modeling,* co-located with MODELS 2007, Oct. 2007.
5. Pia, P., Demurjian, S., Vegad, S., Kopparti, S., and Polineni, K., "BrainStorm: Collaborative Customer Requirements Elicitation for Distributed Software Development," Proc. of 31st Annual Software Engineering Workshop, Baltimore, MD, Mar. 2007.
6. Doan, T., Michel, L., and Demurjian, S., "A Formal Framework for Secure Design and Constraint Checking in UML," *Proc. of Intl. Symposium on Secure Software Engineering,* Washington, DC, Mar. 2006.
7. Demurjian, S., Rajasekaran, S., Ammar, R,. Greenshields, I., Doan, T., and He, L., "Applying LSI and Data Reduction to XML for Counter Terrorism," *Proc. IEEE Aerospace Conf.*, CD-Rom Proceedings, Big Sky, MT, Mar. 2006.
8. Pavlich-Mariscal, J., Michel, L., and Demurjian, S., "Role Slices and Runtime Permissions: Improving an AOP-based Access Control Schema, " *Proc. of 7th Intl. Wksp. on Aspect-Oriented Modeling, co-located with MoDELS/UML 2005*, Montego Bay, Jamaica, Oct. 2005.
9. Pavlich-Mariscal, J., Michel, L., and Demurjian, S., "A Formal Enforcement Framework for Role-Based Access Control using Aspect-Oriented Programming," *Proc. of ACM/IEEE 8th Intl. Conf. on Model Driven Engineering Languages and Systems (MoDELS/UML 2005),* Montego Bay, Jamaica, Oct. 2005, pp. 537-552.
10. Doan, T., Michel, L., Demurjian, S., and Ting, T.C., "Stateful Design for Secure Information Systems," *Proc. of 3rd Intl. Wksp. on Security in Information Systems (WOSIS05)*, Miami FL, May 2005, pp. 277-286.
11. Rajasekaran, S., Ammar, R,. Demurjian, S., Abdel-Raouf, A., Doan, T., Lian, J., Song, M., and Mohamed, A., "Strategies for Process High Volumes of Data in Support of Counter-Terrorism," *Proc. IEEE Aerospace Conf.*, CD-Rom Proceedings, Big Sky, MT, Mar. 2005.
12. Doan, T., Demurjian, S., Ammar, R., and Ting, T.C., "UML Design with Security Integration as a First Class Citizen," *Proc. of 3rd Intl. Conf. On Computer Science, Software Engineering, Information Technology, e-Business, and Applications (CSITeA'04),* CD-Rom Proceedings, Cairo, Dec. 2004.
13. Doan, T., Demurjian, S., Ting, T.C., and Ketterl, A., "MAC and UML for Secure Software Design," *Proc. of 2nd ACM Workshop on Formal Methods in Security Engineering: From Specifications to Code,* pp. 75-85, Washington D.C., Oct. 2004.
14. Caballero, R. and Demurjian, S., "A Graph-Based Algorithm for Automated Refactoring," *Proc. of III Ibero-American Symposium on Software Engineering and Knowledge Engineering,* pp. 85-91, Valdivia, Chile, Nov. 2003.
15. Phillips, C., Demurjian, S., and Ting, T.C., "Assurance Guarantees for an RBAC/MAC Security Model," *Proc. of the17th IFIP 2002 11.3 WG Conf.*, Estes Park, CO, Aug. 2003.
16. Pia, P. and Demurjian, S., "Guided Generation of Use-Case-Based Software Requirements, " *Proc. of ISCA 12th Intl. Conf. On Intelligent and Adaptive Systems and Software Engineering,* San Francisco, CA, July 2003.
17. Phillips, C., Demurjian, S., and Ting, T.C., "Security Assurance for an RBAC/MAC Security Model," *Proc. of 2003 IEEE Info. Assurance Workshop*, West Point, NY, June 2003.
18. Needham, D., Demurjian, S., Price, M., Rando, T., and Daggett, T., "Analyzing the Reusability of Shipbuilding Components Modeled in XML," *Proc. of 6th Intl. Conf. on Business Information Systems(BIS 2003),* Colorado Springs, CO, June 2003.

19. Liebrand, M., Ellis, H., Phillips, C., Demurjian, S., and Ting, T.C., "Role Delegation for a Distributed, Unified RBAC/MAC," *Proc. of 16th IFIP WG 11.3 Working Conf. on Database Security*, Cambridge, England, July 2002.
20. Phillips, C., Demurjian, S., and Ting, T.C., "Towards Information Assurance in Dynamic Coalitions," *Proc. of 2002 IEEE Info. Assurance Workshop*, West Point, NY, June 2002.
21. Phillips, C., Ting, T.C., and Demurjian, S., "Information Sharing and Security in Dynamic Coalitions," *Proc. of 7th ACM Sym. on Access Control Models And Technologies, SACMAT, 2002,* Monterey, CA, June 2002.
22. Caballero, R. and Demurjian, S., "Towards the Formalization of a Reusability Framework for Refactoring," *Proc. of 7th Intl. Conf. on Software Reuse,* Austin, TX, Apr. 2002. Also in LNCS, Vol. 2319, 2002.
23. Phillips, C., Demurjian, S., and Ting, T.C., "Security Engineering for Roles and Resources in a Distributed Environment," *Proc. of 3rd Annual Intl. Systems Security Engineering Association Conf.,* Orlando, FL, Mar. 2002.
24. Bastarrica, M., Caballero, R., Demurjian, S., and Shvartsman, A., "Two Optimization Techniques for Component-Based Systems Deployment," *Proc. of 13th Intl. Conf. on Software Engineering and Knowledge Engineering,* Buenos Aries, Brazil, June 2001.
25. Price, M., Needham, D., and Demurjian, S., "Producing Reusable Object-Oriented Components: A Domain-and-Organization-Specific Perspective," *Proc. of ACM Sym. on Software Reuse (SSR) 2001*, Toronto, Canada, May 2001.
26. Barr, P., Demurjian, S., and Shin, D.G., "Database Interoperability (with semantic understanding) and Messaging using XML," *Proc. of 13th Annual Software Technology Conf. (STC 2001),* Salt Lake City, Utah, May 2001.
27. Bastarrica, M., Demurjian, S., and Shvartsman, A., "Comprehensive Specification of Distributed Systems Using I5 and IOA, *Proc. of 19th Intl. Conf. of the Chilean Society of Computer Science*, Chile, Nov. 2000.
28. Demurjian, S., Ting, T.C., Balthazar, J., Ren, H., Phillips, C., and Barr, P., "Role-Based Security in a Distributed Resource Environment," *Proc. of 14th IFIP WG 11.3 Working Conf. on Database Security*, Scoorl, The Netherlands, Aug. 2000.
29. Needham, D., Demurjian, S., and Peters, T., "An IDL to Ada95 Mapping to Support Propagation Modeling," *Ada Letters*, Vol XX, Number 2, Mar. 2000.
30. Bastarrica, M., Craig, S., Demurjian, S., and Shvartsman, A., "Structural Specification of a Distributed System Using I5," *Proc. of 5th Intl. Conf. on Computer Science and Informatics*, IC2000, Atlantic City, Feb. 2000.
31. Demurjian, S. and Barr, P., "JINI: A Technology for 21st Century -- Is it Ready For Prime Time?," *Proc. of 24th Annual Software Engineering Workshop,* Greenbelt, Maryland, Dec. 1999. Program (slides and papers) electronically posted at http://sel.gsfc.nasa.gov/sew/1999/program.html.
32. Bastarrica, M., Demurjian, S., and Shvartsman, A., "A Framework for Architectural Specification of Distributed Object Systems," *Proc. of 3rd Intl. Conf. on Principles of Distributed Systems (OPODIS'99),* Hanoi, Vietnam, Oct. 1999.
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36. Reisner, J., Lainwala, Z., Peters, T., and Demurjian, S., "Implementing a Culling and Self-Intersection Algorithm for Stereo-lithography Files in Ada95," *Proc. of SIGAda'98 - Annual Intl. Conf.*, Washington, D.C., Nov. 1998.
37. Bastarrica, M., Demurjian, S., and Shvartsman, A., "Software Architectural Specification for Optimal Object Distribution," *Proc. of 17th Intl. Conf. of the Chilean Society of Computer Science*, Antofagasta, Chile, Nov. 1998.
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41. Needham, D., Demurjian, S., and Peters, T., "An Ada95 Basis for Propagation Modeling," *Proc. of 1997 TriAda Conf.*, St. Louis MO, Nov. 1997.
42. Price, M., Demurjian, S., and Needham, D., "Reusability Measurement Framework and Tool for Ada95," *Proc. of 1997 TriAda Conf.,* St. Louis MO, Nov. 1997.
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47. Peters, T., Demurjian, S., Needham, D., Peters, R., and Dorney, S., "Propagating Topological Tolerances for Rapid Prototyping," *Proc. of Sym. on Recent Developments in Tolerance and Metrology for Control and Improvement of Manufacturing Processes*, Atlanta, GA, Nov. 1996.
48. Peters, T., Demurjian, S., McCartney, R., and Needham, D., "Object Modeling to Localize Knowledge for Feature Interrelationships," *Proc. of IFIP Knowledge Intensive CAD-2 Workshop*, Pittsburg, PA, Sept. 1996.
49. Brett, B., Peters, T., Demurjian, S., and Needham, D., "Relations Between Features - An Object-Oriented Industrial Prototype," *Proc. of 16th ASME Intl. Computers in Engineering Conf.*, Irvine, CA, Aug. 1996.
50. Demurjian, S., Ting, T.C., Price, M., and Hu, M.-Y., "Generics and Exception Handling for Supporting User-Role Based Security in Object-Oriented Systems," *Proc. of 10th IFIP WG 11.3 Working Conf. on Database Security*, Como, Italy, July 1996.
51. Needham, D., Peters, T., and Demurjian, S., "Modeling Topological Tolerance Interdependencies in Ada95," *Proc. of 10th Annual ASEET Sym.*, Prescott Arizona, June 1996.
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53. Demurjian, S, Hu, M.-Y., and Ting, T.C., "Role-Based Access Control for Object-Oriented/C++ Systems," *Proc. of 1st ACM Workshop on Role-Based Access Control*, Gaithersburg, MD, Nov. 1995.

54. Demurjian, S., Hu, M.-Y., Daggett, T., and Ting, T.C., "User-Role Based Security Enforcement Mechanisms for Object-Oriented Systems and Applications," *Proc. of 9th IFIP WG 11.3 Working Conf. on Database Security,* Rensselaerville, NY, Aug. 1995.
55. Needham, D., Demurjian, S., Peters, T., and El Guemhioui, K., "Integrating Ada 95 within a Language Independent Approach to Undergraduate Software Engineering Education," *Proc. of 9th Annual ASEET Sym.*, Morgantown, WV, June 1995.
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59. Song, A., Demurjian, S., and Kleinman, D., "Transaction Management and Object-Oriented Modeling in a Distributed Dynamic Decisionmaking Environment," *Proc. of 1994 ACM Computer Science Conf.*, Phoenix, Mar. 1994.
60. Demurjian, S. and Ting, T.C., "Shouldn't the Object-Oriented Paradigm Influence and Guide the Approach for Security?," *Proc. of 1993 Workshop on Security for Object-Oriented Systems*, part of OOPSLA 1993, Washington D.C., Sept. 1993.
61. El Guemhioui, K., Demurjian, S., and Peters, T., "Object-Oriented Design and Automatic Ada Code Generation in the Education of Software Engineers," *Proc. of 1993 TriAda Conf.,* Seattle, WA, Sept. 1993.
62. Demurjian, S., Hu, M.-Y., Ting, T.C., and Kleinman, D., "Towards an Authorization Mechanism for User-Role Based Security in an Object-Oriented Design Model," *Proc. of 1993 Phoenix Conf. on Computers and Communications*, Scottsdale, AZ, Mar. 1993.
63. Ellis, H. and Demurjian, S., "Object-Oriented Design and Analyses for Advanced Application Development - Progress Towards a New Frontier," *Proc. of 1993 ACM Computer Science Conf.*, Feb. 1993.
64. Ting, T.C., Demurjian, S., and Hu, M.-Y., "A Specification Methodology for User-Role Based Security in an Object-Oriented Design Model - Experience with a Health Care Application," *Proc. of 6th IFIP WG11.3 Working Conf. on Database Security*, Vancouver, BC, Aug. 1992.
65. Ellis, H., Ammar, R., and Demurjian, S., "The Role of Propagation in Database Support for Performance Modeling Environments," *Proc. of 1992 Phoenix Conf. on Computers and Communications*, Scottsdale, AZ, Apr. 1992.
66. Ting, T.C., Demurjian, S., and Hu, M.-Y., "On Information Hiding for Supporting User-Role Based Database Security in the Object-Oriented Paradigm," *Proc. of 5th IFIP WG11.3 Working Conf. on Database Security*, Shepherdstown, WV, Nov. 1991.
67. Demurjian, S., Hu, M.-Y., Kleinman, D., and Song, A., "ADAM/DDD - An Application-Specific Design Tool for Dynamic Distributed Decisionmaking," *Proc. of IEEE Systems, Man, and Cybernetics Conf.*, Charlottesville, VA, Oct. 1991.
68. Hu, M.-Y., Demurjian, S., Kleinman, D., and Song, A., "ADAM/DDD - A Scenario Design Tool for Dynamic Distributed Decisionmaking," *Proc. of 1991 Sym. on Command and Control Research/Basic Research Group (BRG) Sym.*, Washington D.C., June 1991.
69. Ellis, H. and Demurjian, S., "ADAM: A Graphical, Object-Oriented Database Design Tool and Code Generator," *Proc. of 1991 ACM Computer Science Conf.*, San Antonio, TX, Mar. 1991.

70. Demurjian, S., Ellis, H., and Hu, M.-Y., "Software Reuse and Evolution in ADAM - A Joint Object-Oriented Programming Language and Database Design Tool," *Proc. of 1990 ACM Sym. on Object-Oriented Programming Emphasizing Practical Applications*, Marist, NY, Sept. 1990.
71. Nichols, G. and Demurjian, S., "Object-Oriented Database Design for the Ozone Software Development Environment," *Proc. of 1990 BNCOD-8 Conf.*, York, England, July 1990, Putnam Press.
72. Ellis, H., Demurjian, S., Beshers, G., Maryanski, F., and Peckham, J., "Extending the Behavioral Capabilities of the Object-Oriented Paradigm with an Active Model of Propagation," *Proc. of 1990 ACM Computer Science Conf.*, Washington, D.C., Feb. 1990.
73. Peckham, J., Maryanski, F., Beshers, G., Chapman, H., and Demurjian, S., "Constraint Based Analysis," *Proc. of Intl. Conf. on Information Systems*, Boston, MA, Dec. 1989.
74. Demurjian, S. and Hsiao, D., "The Multi-Model Database System," *Proc. of 1989 Phoenix Conf. on Computers and Communications*, Phoenix, AZ, Mar. 1989.
75. Demurjian, S., et al., "A Computer-Aided Benchmarking System for Parallel and Expandable Database Computers," *Proc. of 1987 Fall Joint Computer Conf.*, Dallas, TX, Oct. 1987.
76. Demurjian, S. and Hsiao, D., "The Multi-Lingual Database System," *Proc. of 3rd Intl. Conf. on Data Engineering*, Los Angeles, CA, Feb. 1987.
77. Demurjian, S., Hsiao, D., and Marshall, R., "The Architectural Requirements and Integration Analyses of a Database Server for Office Automation," *Proc. of IFIP TC 8/WG 8.4 Working Conf. on Methods and Tools for Office Systems*, Pisa, Italy, Oct. 1986.
78. Demurjian, S., et al., "A CAD System for the Automatic Generation of Test Database and Transaction Mixes for the Performance Evaluation of Parallel Database Systems," *Proc. of Intl. Conf. on Computer Design*, Port Chester, NY, Oct. 1986.
79. Anand, J., Demurjian, S., et al., "A Research Report on the Laboratory for Database Systems Research: Past, Present and Future," *Proc. of 6th Advanced Database Sym.*, Tokyo, Japan, Aug. 1986.
80. Demurjian, S., Hsiao, D., and Menon, J., "A Multi-Backend Database System for Performance Gains, Capacity Growth and Hardware Upgrade," *Proc. of 2nd Intl. Conf. on Data Engineering*, Los Angeles, CA, Feb. 1986.
81. Demurjian, S., et al., "Performance Measurement Methodologies for Database Systems," *Proc. of 1985 ACM Annual Conf.,* Denver, CO, Oct. 1985.
82. Demurjian, S., Hsiao, D., and Marshall, R., "The Configuration-Analyses of a Database Server for Office Automation," *Proc. of 1985 ACM Annual Conf.*, Denver, CO, Oct. 1985.
83. Demurjian, S. and Hsiao, D., "New Directions in Database-Systems Research and Development," *Proc. of Intl. Sym. on New Directions in Computing*, Trondheim, Norway, Aug. 1985.
84. Demurjian, S., et al., "Performance Evaluation of a Database System in Multiple Backend Configurations," *Database Machines, 4th Intl. Workshop*, D. DeWitt and H. Boral (eds.), Springer, Mar. 1985.
85. Demurjian, S. and Hsiao, D., "Benchmarking Database Systems in Multiple Backend Configurations," *IEEE Database Engineering Bulletin*, Mar. 1985.
86. Forsythe, J., et al., "QUGEN - A Simplified Relational Database Retrieval Language," *Proc. of IEEE MEDCOMP 1983,* Sept. 1983.

Industrial Technical Reports

1. Final Report for Navy Phase I SBIR Project (Serebrum): A Security Framework for WIKIs. Sereburm Contributors: Krishna Polineni and Mahitha Devineni; UConn Contributors: Profs. Steven A. Demurjian and Alexander C. Russell; UConn Graduate Students: Seth Freeman and Paul Vandal Jr. This report is limited release (classified).
2. Final Report for NSF Phase I SBIR Project (Serebrum): BrainStorm – Collaborative Customer Requirements Elicitation for Distributed Software Development.
3. P. Barr and S. Demurjian, "JINI: Evaluating the Technology and Impact on Present and Future Army Systems," Mitre Working Note WN, Sept. 1999, Mitre Corporation, Eatontown, NJ.
4. P. Barr and S. Demurjian, "Security, Authorization, and Authentication for Enterprise Computing and ABCS/FDD," Mitre Working Note WN, Apr. 1998, Mitre Corporation, Eatontown, NJ.
5. P. Barr and S. Demurjian, "Software Architectures for Integrating Clients, Servers, Legacy, Database, and Commercial Off-the-Shelf (COTS) for Army Battle Command System (ABCS)/First Digital Division (FDD) ," Mitre Working Note WN, Apr. 1998, Mitre Corporation, Eatontown, NJ.
6. P. Barr, S. Demurjian, and D. G. Shin, "The Java Programming Language Impact," Mitre Working Note WN, Sept. 1997, Mitre Corporation, Eatontown, NJ.

Position Papers and Panels

1. Demurjian, S., Dyer, H. and Peters, T., "Manufacturing Informatics: Navigating the Information Superhighway," panel at *Fourth Intl. Computer Integrated Manufacturing and Automation Technology Conf.,* RPI, Oct. 1994.
2. Song, A., Kleinman, D., Demurjian, S., and Hu, M.-Y., "A Distributed Dynamic Simulation Environment for Team Decisionmaking," position paper, Aug. 1992; *ACM CSCW'92 Workshop on Tools and Technologies for CSCW*, Oct. 1992.
3. Demurjian, S., Beshers, G., Ammar, R., and Ting, T.C., "The SEEDS Project at The University of Connecticut," *Proc. of Second Intl. Workshop on Computer-Aided Software Engineering*, Cambridge, MA, July 1988.
4. Ammar, R., Beshers, G., Demurjian, S., and Ting T.C., "A Bibliography on Software Development Tools in the Eighties," *Proc. of Second Intl. Workshop on Computer-Aided Software Engineering*, Cambridge, MA, July 1988.

FUNDED RESEARCH GRANTS AND CONTRACTS

- Feasibility Study of Information System Reengineering, Part XII, State of Connecticut Insurance Department, $160,000. PIs: S. Demurjian and D.G. Shin. July 1, 2008 to June 30, 2009.
- Developing a Center for Translational Health Services Research, Dongahue Foundation, University of Connecticut Health Center, $19,057. PI: S. Demurjian. September 1, 2008 to February 28, 2009.
- Strategic Planning for HIT in Community Health Organizations, University of Connecticut Health Center, $4,000. PI: S. Demurjian. September 1, 2008 to February 28, 2009. Part of Larger Planning Grant of Same Title from: Connecticut Health Foundation, $381,000. PIs: J. Fifield, T. Agresta, R. Crowell; S. Demurjian (faculty participant). July 2007 to June 2009.
- Design and Development of a Web-Based Application for Youth Services Survey, State of Connecticut Department of Children and Families, $37,950. PI. Y.-A. Kim, Co-PIs: D.G. Shin and S. Demurjian, June 1, 2008 to January 6, 2009.
- PDA Applications for Medical Education, UConn Health Center Department of Family Medicine, $10,000. PI. S. Demurjian, March 1, 2008 to June 30, 2008.

- Botnet Detection and Mitigation, Sonalysts Inc., Phase II SBIR Grant from Dept. of Homeland Security, UConn sub-contract: $229,004. PI: A. Kiayias, Co-PIs: S. Demurjian, S. Rajasakeran, R. Ammar, September 1, 2007 to August 31, 2009.
- Reverse Engineering Dcp2s Requirements, $36,648. PI: S. Gokhale, co-PIs: S. Demurjian and R. Ammar, State of Connecticut Department of Information Technology, July 1, 2007 to January 7, 2008.
- Feasibility Study of Information System Reengineering, Part XI, State of Connecticut Insurance Department, $303,857. PIs: S. Demurjian and D.G. Shin. July 1, 2007 to June 30, 2008; supplement of $30,000 added in May 2008 for a total amount of $333,857.
- Feasibility Study of Information System Reengineering, Part X, State of Connecticut Insurance Department, $415,128. PIs: S. Demurjian and D.G. Shin. July 1, 2006 to June 30, 2007.
- Development of Internet-based Computer Databases for the CT Dept. of Transportation, Connecticut Transportation Institute, CTI PI: J. Mahoney, CSE PI: S. Gokhale, CSE co-PI: S. Demurjian, , January 2005-June 2007, $20,361.
- Botnet Detection and Mitigation, Sonalysts Inc., Phase I SBIR Grant from Dept. of Homeland Security, UConn sub-contract: $29,863. PI: S. Demurjian, Co-PIs: A. Kiayias, S. Rajasakeran, R. Ammar, Sept. 1, 2006 to Feb. 28, 2007.
- A Security Framework for WIKIs, Serebrum Inc., Phase I SBIR Grant from Dept. of Navy, UConn sub-contract: $20,877 (Phase I - funded). PI: S. Demurjian, Co-PI: A. Russell, July 1, 2006 to Dec. 31, 2006.
- Feasibility Study of Information System Reengineering, Part IX, State of Connecticut Insurance Department, $465,767. PIs: S. Demurjian and D.G. Shin. July 1, 2005 to June 30, 2007.
- Feasibility Study of Information System Reengineering, Part VIII, State of Connecticut Insurance Department, $394,999. PIs: S. Demurjian and D.G. Shin. July 1, 2004 to June 30, 2007.
- Transformation Spaces: Specification and Characterization, DAPRA, $500,000. PD: I. Greenshields. PIs: R. Ammar, S. Demurjian, B. Javadi, K. Pattipati, S. Rajasekaran, and A. Russell. Jan. 1, 2004 to Dec. 30, 2004.
- Feasibility Study of Information System Reengineering, Part VII, State of Connecticut Insurance Department, $329,998. PIs: S. Demurjian and D.G. Shin. Aug. 21, 2003 to June 30, 2007.
- Feasibility Study of Information System Reengineering, Part VI, State of Connecticut Insurance Department, $199,659. PIs: S. Demurjian and D.G. Shin. Jan. 1, 2003 to Dec. 31, 2005.
- Feasibility Study of Information System Reengineering, Part V, State of Connecticut Insurance Department, $158,668. PIs: S. Demurjian and D.G. Shin. Mar. 15, 2002 to Dec. 31, 2005.
- Research and Prototyping of Guided Generation of Software Requirements, part of NSF SBIR Phase I Grant "Guided Generation of Software Requirements" Software Frameworks, Inc., Mystic CT, $32,856. PI: S. Demurjian. Jan. 1, 2002 to June 30, 2002.
- Security Enforcement for IT Environments, GE Fund for IT related research, $8,628, PI: S. Demurjian, Co-PI: T.C. Ting, Jan. 15, 2002 to June 30, 2002. (funded through School of Engineering Deanery)
- Feasibility Study of Information System Reengineering, Part IV, State of Connecticut Insurance Department, $303,937. PIs: S. Demurjian and D.G. Shin. Feb. 13, 2001 to Dec. 31, 2005.
- Feasibility Study of Information System Reengineering, Part III, State of Connecticut Insurance Department, $113,400. PIs: S. Demurjian and D.G. Shin. Sept. 1, 2000 to Dec. 31, 2005.
- Reusability Analysis Framework for Shipbuilding Components Modeled in EXPRESS, XML, and Java, Electric Boat, Inc., Groton, CT, $99,502. PI: S. Demurjian; Co-PI: D. Needham, USNA. June 1, 2000 to May 30, 2002.

- Software Architectures and Database Interoperability for Distributed Systems, The Mitre Corporation, Eatontown, NJ, $76,812. June 1, 2000 to Sept. 30, 2000. PI: S. Demurjian; Co-PIs: D.G. Shin and A. Shvartsman.
- Feasibility Study of Information System Reengineering, Part II, State of Connecticut Insurance Department, $106,054 PIs: S. Demurjian and D.G. Shin. Sept. 1, 1999 to Dec. 31, 2005.
- JINI/JavaSpaces: Evaluating the Technology and Impact on Present and Future Army Systems, The Mitre Corporation, Eatontown, NJ, $15,332. PI: S. Demurjian. June 1, 1999 to Sept. 30, 1999.
- Feasibility Study of Information System Reengineering, State of Connecticut Insurance Department, $60,062. PIs: D.G. Shin and S. Demurjian. Jan. 25, 1999 to Dec. 31, 2005.
- Large-Scale, Multi-Agent, Distributed Mission Planning and Execution in Complex Dynamic Environments, AFOSR, $774,982. PD: E. Santos, PIs: S. Demurjian, A. Shvartsman, and M. Cox. Jan. 1, 1999 to Dec. 31, 2001. UConn Funding: $566,658. Wright State Funding: $208,324. Note that an additional $90,000 was funded for this project as a separate award to AFIT.
- Prototyping the Inter-TOC Data Distribution Model of Army Battle Command Systems, The Mitre Corporation, Eatontown, NJ, $30,400. PI: D.G. Shin and Co-PI: S. Demurjian. Dec. 22, 1998 to Sept. 30, 1999.
- Interoperability Issues in Heterogeneous, Multi-Language, Multi-Process, Distributed, Client/Server Platforms, The Mitre Corporation, Eatontown, NJ, $147,725. PIs: S. Demurjian, D.G. Shin, A. Shvartsman, and R. McCartney. Sept. 1, 1997 to Sept. 30, 1999.
- Subtask # TA97-24 The Java Programming Language: Impact upon the Army Technical Architecture (ATA)/Joint Technical Architecture (JTA), The Mitre Corporation, Eatontown, NJ, $30,673. PIs: S. Demurjian and D.G. Shin, July 1, 1997 to Aug. 31, 1997.
- Ada9X and Object-Oriented Design within an Enhanced Software Engineering Sequence, ARPA, $49,099. PIs: S. Demurjian and T. Peters, May 1, 1994 to July 1, 1995.
- Integrating Ada and Object-Oriented Design within a Software Engineering Course, ARPA, $57,309. PIs: S. Demurjian and T. Peters, May 31, 1993 to Dec. 31, 1994;
- A Normative-Descriptive Theory of Coordination in Distributed Organizations, NSF Grant #IRI-8902755, $971,172. PIs: D. Kleinman, P. Luh, K. Pattipati, F. Maryanski, and R. Shaw; Faculty Associate: S. Demurjian, June 15, 1989 to Nov. 30, 1992.
- Object-Oriented-Paradigm Enhancements for Advanced Application Modeling and Development, The UConn Research Foundation, $7,370.00. PI: S. Demurjian, June 1, 1990 to May 31, 1991.
- Automatic Document Dissemination System, Pacific Missile Test Center, Pt. Mugu, CA, $23,080. PIs: S. Demurjian and D. Shin, Aug. 1, 1989 to Sept. 31, 1989.
- An Object-Oriented Graphical Programming Environment, CADWARE Ltd., New Haven, CT, $20,000. PIs: S. Demurjian and F. Maryanski, Sept. 1, 1988 to July 1, 1989.
- Design of an Integrated System of User Profiling and Automatic Abstracting for Document Management, Pacific Missile Test Center, Pt. Mugu, CA, $15,000. PIs: S. Demurjian, D.G. Shin, and F. Maryanski. Funded through F. Maryanski's NSF Grant #IRI8704042. June 1, 1988 to Sept. 30, 1988.
- Database Support for Computer-Aided Software Engineering, The University of Connecticut Research Foundation, $6,900.00. PI: S. Demurjian, Jan. 1, 1988 to Aug. 31, 1989.

SEMINARS

- CIGNA Corporation, Bloomfield, CT, "Object-Oriented Design and Development," July 20, 1998, 50 attendees. This talk was the focal point, spanning over 3 hours, at CIGNA's Connecticut Systems Community Event for Early Career Hires.

- Pitney Bowes, Inc., Shelton, CT., "Introduction to Object-Oriented Programming and C++," July 20, 1995, 10 attendees.
- Professional Development Seminar Object-Oriented Design, Analyses, and C++, Aug. 15, 1994, 11 attendees, UTEB 150, University of Connecticut, Storrs, CT.
- Hartford Graduate Center (HGC), Hartford, CT, "CASE Environments and Object-Oriented Software and Database Systems," A Short Course Offered through the Professional Development Center at HGC, non-credit, July 17, 1989 to July 21, 1989.
- General Electric, Plainville, CT, "Programming in C," A Short Course for GE Employees, July 11, 1988 to July 29, 1988.

INVITED PRESENTATIONS

- International Conference on Advanced Technologies for Homeland Security (ICATHS'03), Sept. 26, 2003, "Security Issues and Solutions for Homeland Security," Storrs, CT.
- Rensselaer at Hartford, Feb. 15, 2002, "A Framework, Methodology, and Tool for Reusable Software Components," Hartford, CT.
- Electric Boat, Inc., Aug. 28, 2001, "A Framework, Methodology, and Tool for Reusable Software Components," Groton, CT.
- Sikorsky, Inc., Aug. 21, 2001, "Research Efforts in Software Engineering," Stratford, CT.
- "JINI: A Technology for 21st Century -- Is it Ready For Prime Time?," 24th Annual Software Engineering Workshop, NASA Goddard, Greenbelt, Maryland, Dec. 2, 1999.
- The Mitre Corporation, Oct. 19, 1999, "JINI: A Technology for the 21st Century - Is it Ready for Prime Time?" Bedford, MA.
- Software Engineering Methodologies Group, Technical Specialist Meeting, Carrier World Headquarters, Oct. 14, 1999, Topic: Component Technologies, "JINI: A Technology for the 21st Century - Is it Ready for Prime Time?," Farmington, CT.
- The Mitre Corporation, Sept. 8, 1999, "JINI: Evaluating the Technology & Impact on Present & Future Army Systems," Bedford, MA.
- The Mitre Corporation, Aug. 17, 1999, "JINI: Evaluating the Technology & Impact on Present & Future Army Systems," Eatontown, NJ.
- UTECA Workshop, OTIS Elevator, Mar. 26, 1999, "Object-Oriented Design Methodology to Facilitate Reuse," Farmington, CT.
- Hamilton-Standard, Inc., Mar. 15, 1999, "Research Efforts in Computer Science & Engineering at UConn," Windsor Locks, CT.
- Warburg, Dillion, Read, Inc., Aug. 6, 1998, "Research Efforts in Computer Science & Engineering at UConn," Stamford, CT.
- Warburg, Dillion, Read, Inc., Aug. 6, 1998, "Object-Oriented Design Methodology to Facilitate Reuse," Stamford, CT.
- The Mitre Corporation, Mar. 16, 1998, "Security, Authorization, and Authentication for Enterprise Computing and ABCS/FDD," Eatontown, NJ.
- The Mitre Corporation, Mar. 16, 1998, "Software Architectures for Integrating Clients, Servers, Legacy, Databases, COTS," Eatontown, NJ.
- CIGNA Corporation, Jan. 22, 1998, "Software Architectures, Object-Oriented Paradigm, Security, Databases, Networks," Bloomfield, CT.

- The Mitre Corporation, Nov. 25, 1997, "Software Architectures for Integrating Clients, Servers, Legacy, Databases, COTS," Storrs, CT.
- The Mitre Corporation, Aug. 7, 1997, "The Java Programming Language: Impact upon the Army Technical Architecture (ATA) and Joint Technical Architecture (JTA)," Eatontown, NJ.
- Greater Hartford Chapter of ACM, June 2, 1994, "Fallacies and Realities of the Object-Oriented Paradigm in Practice".
- Pratt & Whitney, July 13, 1992, "Object-Oriented Research and Development - Towards Information Engineering," Storrs, CT.
- 1992 UTECA (United Technologies Engineering Coordination Activities) Conf. and Technology Expo, Apr. 29, 1992, "Fallacies and Realities of the Object-Oriented Paradigm in Practice," Springfield, MA.
- Greater Hartford Chapter of ACM, Nov. 9, 1991, "Introduction to Object-Oriented Databases," Hartford Graduate Center, Hartford, CT.
- The Mitre Corporation, Oct. 21, 1991, "An Analytical Framework for User-Role Based Security Specification in an Object-Oriented Design Model," Database Security Group, Bedford, MA.
- Presentation to Travelers, Inc., Feb. 7, 1991, "Object-Oriented Research and Development - The SODA Research Group," Storrs, CT.
- Pratt & Whitney, May 18, 1990, "Object-Oriented Research at The University of Connecticut," East Hartford, CT.

CURRENT SOFTWARE TOOLS/SYSTEMS

- **Distributed Security with JINI and CORBA.** Over the past 4 years, as part of numerous independent studies and design laboratories by graduate students, a prototype system that realizes distributed role-based security has been undertaken. The purpose of the work is to provide a means to control access to legacy and COTS APIs via a mechanism that limits which users (clients) can call which methods of the different APIs that are available in a distributed application. This work began in Spring 2000, and has continued in Fall 2000 (four MS students), Spring 2001 (six MS students), Summer 2001 (two MS students), Fall 2001 (three MS students), Spring 2002 (three MS students), Fall 2002 (five MS students), Spring 2003 (two MS students), Fall 2003 (XX MS students), and Spring 2004 (XX MS students). The current prototype works with Windows NT 4.0 and Linux as OSs, Microsoft Access and Oracle as databases, and JINI 1.1 running under Java 1.3 and Visibroker as middleware. Our prototype supports a Course DB Resource and a Course Client (GUI tool) where students can query course information and enroll in classes, and faculty can query and modify the class schedule. To realize distributed role-based security, a Unified Security Resource (USR) has been prototyped in both JINI and CORBA. In addition, two other security officer tools have been designed and prototyped, namely: a *Security Policy Client (SPC)* to manage user roles and establish privileges, and a *Security Authorization Client (SAC)* for associating roles with actual users. The underlying security mechanism is transparent to clients utilizing tools. This design and prototyping work supports the Ph.D. research of C. Phillips. Please see the following web site for full details: http://www.engr.uconn.edu/~steve/DSEC/dsec.html**.**
- **Security for UML**. This is a two-prong project started in Fall 2004, to support the incorporation of security into UML, the unified modeling language, for secure software design. In the first prong, an implementation/prototyping effort is in support of the Ph.D. work of T. Doan began in Fall 2003, two German Exchange students (undergraduates) working on the project. In Spring 2004, one of these students continued. The effort is focusing on transitioning/designing a security (RBAC/MAC) solution for software design into UML, as realized in the UML tool Together Control Center (via a series of Open APIs and the plug-in architecture that is available). In the second prong, during Fall 2003, there was research by J. Pavlich on using aspect-oriented programming and model composition in support of RBAC security within UML, as part of a CSE320. During Spring 2004, J. Pavlich and two other

graduate students worked on an implementation project for this work as part of CSE333, using UML to define a security access control architecture and AspectJ for its implementation. A journal article based on this work has been submitted. Overall, during Fall 2004, F. Griffith and F. Manni worked on a CSE367 project on this software. During Spring 2005, A. Adur, F. Griffith, F. Manni, and V. Srikanti all worked on projects related to this effort in CSE367.

- **Security for XML.** This effort began in Spring 2003, and has continued in Fall 2003/Spring 2004 with a prototyping effort to transition our RBAC/MAC security model into the XML/web-based context. Specifically, we have designed an approach to allow an XML document to appear differently at different times to different individuals based on role and security clearance levels. In Fall 2003, the implementation effort began (as part of CSE367), and this effort continued in Spring 2004 (as part of a project in CSE333) and is ongoing for the upcoming summer.
- **Design Reuse Evaluation.** DRE, short for design-reuse evaluation, is a object-oriented reuse tool that has been under continuous design, development and improvement (with new capabilities) over the past three years. This research prototype is utilized to support graduate research and undergraduate design/implementation projects. During the 1999/2000 academic year, the availability of this tool was crucial in support of obtaining funding from Electric Boat, Inc., on exploring reusable components for the shipbuilding domain. DRE Software Package contains over 5,500 lines of code and was developed using Java. DRE can analyze the reuse potential of Java, C++, and Ada software. To date, 14 graduate students and 4 undergraduates have done projects related to DRE. In a parallel effort to the DRE prototype as described above, the ideas and concepts for our reuse model and framework are being transitioned into the UML tool Together CC, yielding DRE/TCC. Together CC has the ability to access the internal Java data structures that are utilized to store a UML design, and allows the addition of "plug-ins" that add custom functionality via Java code. This work is conducted jointly with USNA and supported by Electric Boat. A current Ph.D. student, R. Caballero, is working on formalizing the reuse model and designing/utilizing genetic algorithms for reusability assessment/analysis. Please see the following web site for full details: http://www.engr.uconn.edu/~steve/DRE/dre.html**.**
- **I5 Design Tool.** The I5 Design Tool is a custom UML tool based on the OMG UML CORBAfacility and has been under development since June 1999, with Scott Craig as the major software engineer. In Fall 1999, the graphical features were prototyped as an undergraduate project while the Foundation and ModelManagement packages of the UMLfacility were implemented as a graduate project. In Spring 2000, two students reproduced the Fall 1999 prototype in order to restructure the graphical features of the tool while implementation of the BehavioralElements package began. Proposed metamodel changes intended to enhance implementation diagrams were also prototyped. To date, 197 of the 373 UMLfacility interfaces have been implemented, including all interfaces needed to support I5. Advanced features of the Java2 platform (Java IDL, 2D Graphics and Imaging, Drag-and-Drop, etc.) were utilized in developing the tool. Future work may include implementation of the remaining BehavioralElements subpackages and adding support for XML model interchange. A total of 4 students worked on this during the 1999-2000 academic year.

CURRENT DOCTORAL CANDIDATES

- S. Behre is in his second year as a Ph.D. student.
- J. Pavlich-Mariscal is in his fifth year as a Ph.D. student, is being co-advised by L. Michel, was initially funded by a Fulbright Scholarship from LASPAU and a tuition waiver from UConn; ABD.
- H. Ren is in her second year as a part-time Ph.D. student and is a full time employee at UTC Fuel Cells.
- S. Freeman is in his fourth year as a Ph.D. student.
- D. Maine is in his first year as a part-time Ph.D. student/full-time employee at Hamilton Sunstrand.
- R. Saripalle is in his first year as a Ph.D. student.

CURRENT MASTERS STUDENTS

- J. Hayden (Fall 2005), third year MS student.
- S. Berhe (Spring 2006), second year MS student.
- H. Sen (Spring 2007), second year MS student.
- M. Saleem (Spring 2007), second year MS student.
- M. Hurley (Fall 2006), third year MS student.
- R. Bhatt (Fall 2008), first year MS student.
- A. Loth (Fall 2008), first year MS student.

COMPLETED DOCTORAL STUDENTS

1. T. Doan, "A Framework for Software Security in UML with Assurance," August 2008 (co-advised with T.C. Ting).
2. C. Phillips, "Security Assurance for a Resource-Based RBAC/DAC/MAC Security Model," May 2004. Dr. Phillips is currently the Chief Information Officer for the U.S. Army Reserve Command at Fort McPherson, GA. Previously, he was an assistant professor in the Computer Science Department at the US Military Academy at West Point.
3. C. Bastarrica, "Architectural Specification and Optimal Deployment of Distributed Systems," Aug. 2000. Dr. Bastarrica is an Assistant Professor in the Computer Science Department at the University of Chile, Santiago, Chile. (co-advised with A. Shvartsman)
4. M. Price, "Object-Oriented Design Methodology To Facilitate Reuse," May 1998. Dr. Price is a software engineer at Electric Boat, Groton CT, since Dec. 2000. Previously, Dr. Price was a senior software engineer at Raytheon in Newport, RI, since July 1998.
5. K. El Guemhioui, "Information Engineering of Parallel and Distributed Systems Using an Object-Oriented Design Model," May 1997. Dr. El Guemhioui is currently a full professor in the Department of Data Processing and Engineering at the at the University of Quebec in Outaouais.
6. D. Needham, "Object-Oriented Propagation Modeling to Support CAD/CAM and Software Engineering," May 1997. Dr. Needham is a tenured associate professor in the Computer Science Department of the U.S. Naval Academy. (co-advised with T. Peters)
7. H. Ellis, "An Information Engineering Approach to Object-Oriented Design and Analyses," May 1994. Dr. Ellis is Visiting Assistant Professor of Computer Science in the Computer Science Department at Trinity College (since Sept. 2005).
8. M.-Y. Hu, "Definition, Analyses, and Enforcement of User-Role Based Security in an Object-Oriented Design Model," May 1993. Dr. Hu has a position as a senior consultant at Broadvision, Inc. (since Apr. 1999) Previously, she was at IBM Corporation, White Plains, New York (since June 1993).

COMPLETED MASTERS STUDENTS

- UConn: 6 Master's Thesis Graduates and 24 Non-Thesis MS Graduates.
- H. Ni, "Object-Oriented Design Enhancements and User-Role Based Security Specification for the ADAM Environment," Dec. 1994.
- S. Chittathoor, "A Graphical Environment for Object-Oriented Design and Multi-Lingual Automatic Software Generation," May 1993.
- K. El Guemhioui, "The Integration of the Graphical Design Tool ADAM/DB with the Object-Oriented Database System Ontos," June 1992.

- S. Ranganathan, "Evolving a Class Library to Support Persistency: The Integration of Ozone with Ontos," Dec. 1991.
- G. Nichols, "Utilization and Evaluation of the Object-Oriented Paradigm for Modelling in the Ozone Software Development Environment," Dec. 1990.
- H. Ellis, "Incorporating Behavioral Capabilities into the Object-Oriented Paradigm through Propagation Actions," June 1990.
- A. Adur, Fall 2005, Non-Thesis MS Degree.
- F. Manni, Spring 2006, Non-Thesis MS Degree.
- P. Griffith and Y. Ju, Fall 2005, Non-Thesis MS Degree.
- A. Ketterl, Z. Wang, A. Sundaram, and Y. Zhang, Spring 2005, Non-Thesis MS Degree.
- J. Mehta and C. Slamka, Aug. 2004, Non-Thesis MS Degree.
- K. Bessette and H. Dave, May 2004, Non-Thesis MS Degree.
- F. Gao, Dec. 2002, Non-Thesis MS Degree.
- S. Das, J. Ellis, and F. Eickhoff, Aug. 2002, Non-Thesis MS Degree.
- N. Limaye and H. Lin, May 2001, Non-Thesis MS Degree.
- J. Balthazar, S. Craig, and H. Ren, Aug. 2000, Non-Thesis MS Degree.
- H. Sauers, May 1999, Non-Thesis MS Degree.
- A. Vadali, Dec. 1998, Non-Thesis MS Degree.
- R. Pujar, Aug. 1998, Non-Thesis MS Degree.
- L. Wu, Dec. 1997, Non-Thesis MS Degree.
- N. Hamawi, Dec. 1995, Non-Thesis MS Degree.
- While at the Naval Postgraduate School (10/83 to 6/87) I supervised 26 master's students producing 21 masters theses as the second reader (i.e., co-adviser). This list is available upon request.

COURSES TAUGHT

CSE110	Intro. to Numerical Computation	FA87, SP/FA88, FA89, SP91
CSE230	Intro. to Software Engineering	FA93, FA95, FA96, FA97, FA98, SP06, FA06
CSE235	Prin. of Programming Languages	SP89, SP90
CSE244	Prog. Language Translation	FA91, SP/FA92, SP93, SP/FA94, FA00, SP01
CSE255	Introduction to Data Bases	SP/FA03, FA04, SP07
CSE258	Operating Systems	FA99, SP00
CSE262	Software Engineering Laboratory	SP96, SP97, SP98, SP99, SP00, SP01
CSE265	Independent Design Laboratory	SP/FA88, SP91, SU93, FA93, SP94, FA95, SP/FA96, FA97, FA98, FA99, SP00, SP03, FA04 FA05, SP/FA07
CSE269	Computer Science Design Lab.	FA90, SP97, SP98, FA98, SP05
CSE293	Computer Sci. & Engr. Design Lab.	SP01, SP03, SP04, SP/FA05, SP06, SP/FA07, SP08, SU08
CSE298	Distributed Object Computing	SP99, FA05
CSE299	Independent Study in CS&E	FA96, FA98, FA05, SP06
CSE300	Res. Topics in Info. & SW Engrg.	SP96
CSE300	Operating Systems	SP00
CSE300	Topics in Biomedical Informatics	SP08
CSE320	Indep. Study in CS & E	SP90, FA91, SU/FA92, SP93, SU/FA94, FA95, FA96, SP/FA97, FA99, SP/SU00, SP/SU/FA01, SP/FA02, SP/FA03, SP/SU/FA04, SP05, SP/FA06, SP07, SP08
CSE327	Adv. Software Engineering	SP93, FA93, FA94, FA95

CSE333	Distributed Component Systems	SP99, FA00, FA02, SP04, FA05
CSE350	Adv. Database Topics	FA88, FA90
CSE367	CS&E Research Laboratory	FA88, FA90, FA97, SP/FA98, SP00, SP/FA01, SP/FA02, SP/FA03, SP/FA04, SP/FA05, SP/FA06, FA07

CURRICULUM DEVELOPMENT

- Development of CSE300 Topics in Biomedical Informatics, a new course offered in Spring 2008. This course was based on material from CSE333 – namely the topics software architectures, middleware and service oriented architectures, security (background, role-based, distributed, secure software engineering), and the dynamic coalition problem, but with two vital differences. First, any of the slides used from CSE333 were totally reworked and expanded with new material directly relating the course topics to biomedical informatics and other medical applications. Second, new subjects related to biomedical informatics/standards, collaborative security, and web security. A group team project on a collaborative web portal was designed and prototyped; this project will be used for a CSE293 in Summer 2008. (Please see: http://www.engr.uconn.edu/~steve/Cse300/cse300.html).
- Development of CSE293 Computer Science & Engineering Design Laboratory. This was a new course developed during the Spring 2001 semester, reused during the current Spring 2003 semester, as part of our major curriculum changes for the ABET 2000 accreditation. This course is considered the second semester of a major design experience that is required by all of our undergraduates. A significant amount of course materials (Please see www.engr.uconn.edu/~steve/Cse293/cse293.html) have been developed. In Spring 2001, a real-time digital, software controllable model railroading laboratory with Marklin computer controllable model train equipment was established and used for projects. This is state of the art equipment, were all of the various components, trains, turnouts, switches, signals, etc., are computerized, and more important, computer controllable from a laptop or a PC. During the current Spring 2003 semester, there is one ongoing hardware and software project related to the digital trains. There are also projects related to robotics controllable by PDA/cell phone, computer gaming with GameBoy Advance, laptop connection to on-board diagnostics of automobiles, and others.
- Development CSE333 Distributed Component Systems (originally offered as CSE298/300 Distributed Object Computing). This course was offered as a new course for the first time during the Spring 1999 semester, as a CSE professional requirement for undergraduates held in conjunction with a graduate version of the course. This course included up-to-date research material on new and emerging topics in DOC. Students worked as teams of undergraduates/graduates on projects and did presentations in a day-long seminar setting. This course used materials that were all made available via the web page of the instructor, including papers, powerpoint slides, and web sites with papers and software for downloading. A total of over 1500 powerpoint slides were developed for the course, updated most recently during the Spring 2004 offering. (Please see www.engr.uconn.edu/~steve/Cse333/cse333.html).
- Developed a new graduate course, CSE350, in Fall 1989, to function as a first year, graduate level database course. This course provides a broad background in database concepts and serves as a prerequisite for more advanced database related courses such as CSE351 - Semantic Data Models, CSE331 - Distributed Database Systems, and CSE353 - Information and Data Security. At the time, there were numerous database faculty at UConn (Demurjian, Maryanski, Shin, Ting, and Viemont) and these four courses were established as a unified curriculum with CSE350 as the lead in course. CSE350 has been offered by other faculty members (Shin, Goldin, Thomasian) over the years.
- Redesign of CSE250 and CSE251 into a new sequence CSE230 and CSE262 (no change in titles). The credits have increased from 4 to 6 in the software engineering sequence. The material in CSE230 combines lecture material from CSE250 and CSE251 by adding an extra meeting day, hence the increase of 1 credit. The number of assignments, homeworks, projects, and exams has not changed. CSE262 is a laboratory-based course (similar to other CSE26X courses), where the students begin their

team project at the start of the semester. CSE230 was offered in its new form during the Summer 1994 session and in the Fall 1994 semester. CSE262 was offered in the Spring 1995 semester. The materials for CSE230/262 have been reused by many other faculty and graduate students teaching the courses since their change. They have also been used at another university. The work on redesigning CSE250 and CSE251 into a new sequence was supported as part of joint funding received by S. Demurjian and T. Peters (Ada9X and Object-Oriented Design within an Enhanced Software Engineering Sequence, ARPA, $49,099. PIs: S. Demurjian and T. Peters, May 1, 1994 to July 1, 1995.; and, Integrating Ada and Object-Oriented Design within a Software Engineering Course, ARPA, $57,309. PIs: S. Demurjian and T. Peters, May 31, 1993 to Dec. 31, 1994).

- Revised the content and focus of CSE250 Introduction to Software Engineering and CSE251 Software Engineering Laboratory, our junior year software engineering sequence, from a traditional to an object-oriented emphasis in the 1991/1992 academic year. New textbooks were chosen that reflect this change in emphasis and stress engineering discipline for software design and development. Supervised H. Ellis (my doctoral student) in the development of overhead transparencies, assignments, exams, and projects for both courses. This material was used by Prof. D.G. Shin in teaching the class during the Summer 1992 session, and by Prof. T. Peters during the Fall 1992 semester. Our approach and rationale has been documented in an article (Demurjian, S., Peters, T., Beshers, G., Ellis, H., and Nichols, G., "The (Non) Importance of a Programming Language in a Software Engineering Course," *Computer Science Education J.*, Vol. 3, No. 1, 1992, Ablex Publishing, Inc.), which served as the basis for CSE230 and CSE62.
- Revised the introductory first year course (CSE110) in Fall 1987 by choosing new textbooks and developing a comprehensive set of overhead transparencies (which were made available to students in subsequent semesters). Four other UConn faculty/instructors utilized the material for teaching CSE110 in other semesters.
- Development for CSE327 - Advanced Software Engineering. During the 1993/94 academic year, this course was developed a new offering of an existing course. A draft containing seven chapters for a graduate textbook was written, titled "Information Engineering: Object-Oriented Design and Analyses" (250 single-spaced pages with exercises). The course notes from the Spring 1993 semester were revised and packaged with the textbook draft into course notes. In the Fall 1993 semester, CSE327 was taught jointly by me at UConn and the Hartford Graduate Center using compressed video technologies for distance learning. I was the first faculty member to utilize this newly purchased technology at UConn, Storrs. The course had students in both Storrs and Hartford. I would alternate and teach one week in Hartford and one week in Storrs, to give students personal access to the instructor.
- Development of CSE258 Operating System. This course was a new preparation that required a significant amount of effort since the topic material is outside of my direct area of expertise. This course is required by all CSE undergraduate majors. I developed a comprehensive set of 865 overhead transparencies (based on 400 overheads supplied by the textbook's author G. Nutt). An extensive course web page was also developed, and used during the Fall 1999 and Spring 2000 semester. (Please see www.engr.uconn.edu/~steve/Cse258/cse258.html).
- Development of CSE255 Introduction to Data Bases. This course was a new preparation that is requiring a significant amount of effort. This course is typically taken by most CS/CSE undergraduate majors. I have developed a comprehensive set of 1000 overhead transparencies based on overheads supplied by a faculty member from Georgia Tech (L. Liu) supplemented by material from CSE350. An extensive course web page is also being developed and used during the Spring 2003 semester. (Please see www.engr.uconn.edu/~steve/Cse255/cse255.html).
- Senior Design Project Courses. In Spring 2005, CSE269 was split into two logical groups - one group did one semester projects as usual. The second group defined two semester projects that would continue in a sequence with CSE293 - 3 of 6 groups in CSE269 continued their work in the Fall 2005

semester in CSE293. This has required maintaining two separate schedules and milestones (for one semester vs. two semester groups) and also providing additional work for the two-semester groups so as to define a larger scale project for the two-semester sequence. In addition, CSE293W was offered as a W course for the first time, which has required extra tracking of material written by each student (15 pages per student) along with more feedback on their written assignments.

- Redesign of CSE230 Introduction to Software Engineering. Significant redesign of this course (last taught in 1997) due to the changes to CSE123/133/134 sequence - approximately 70% new materials including many new topics (UML, Software Security, Aspect-Oriented Programming, etc.). (Please see www.engr.uconn.edu/~steve/Cse230/cse230.html)

REFEREEING AND REVIEWING ACTIVITIES

- National Science Foundation, Intl./Australia Program, Jan. 1991.
- National Science Foundation, Database and Expert Systems Program, Jan. 1989 and Mar. 1990.
- Louisiana Board of Regents, Office of Sponsored Research, Jan. 2003.
- Planning Grant, UCHC Ethel Donaghue Center for Translating Research into Practice, 2007
- Computer Science Education Journal, Ablex Pub. Co., Feb./Aug. 1992, Jan./Aug. 1993, May 1994, Dec. 1994, Jan. 1996.
- Journal of Computer Security, Jan. 1993, Feb. 1995.
- ACM Principles of Distributed Computing (PODC) 2000, Mar. 2000.
- IEEE 1999 Software Engineering/Knowledge Engineering (SEKE) Conf., Nov. 1999.
- Distributed Computing 12th Intl. Sym., DISC'98, Sept. 1998.
- IEEE Transactions on Systems, Man, and Cybernetics, June 1994.
- Fourth Intl. Computer Integrated Manufacturing and Automation Tech. Conf., May 1994.
- Sixth ISCA Intl. Conf. on Parallel and Distributed Computing Systems, June 1993.
- 1993/97-07 IFIP WG11.3 Working Conf. on Database Security, 1993/97-07.
- International Semantic Web Working Symposium 2001 (SWWS).
- International Semantic Web Working Symposium 2002 (ISCW2002).
- Special Track on Semantic Web, held in conjunction with FLAIRS 2002.
- Ontologies for Business Information Systems (OntoBIS).
- Special Track on Semantic Web, held in conjunction with FLAIRS 2003.
- International Semantic Web Conference 2003 (ISCW2003).
- IADIS International WWW/Internet Conference 2002, 2003, 2004, 2005, 2006, 2007.
- Principals of Distributed Computing, 2004.
- Journal of Digital Libraries, Special Issue on Security, 2004.
- International Workshop on Web Semantics - WebS 2005, 2006, 2007, 2008.
- International Conference on Web Applications and Research - WAR 2006.
- International Conference on Web Information Systems and technologies (WEBIST) 2005, 2006, 2007.
- IEEE Granular Computing, Special Session on Security, 2006.
- IFIP WG 11.3 XIX, XX, XXI, XXII Conference on Data and Applications Security, 2005, 2006, 2007, 2008.
- International Conference on Software Engineering Advances (ICSOFT), 2008.
- 1990 ISMM Parallel and Distributed Computing, and Systems Conf., May 1990.
- Journal of Parallel and Distributed Computing, Apr. 1990.
- VLDB Journal, Apr. 1993.
- VLDB Conf., Apr. 1990 - 15 total papers received and reviewed.
- COMPSAC'90, Mar. 1990.
- First Intl. Conf. on System Integration, Aug. 1989.

- ACM Transactions on Internet Technology, March 2006.
- Journal of Software and Systems Modeling, March 2006, August 2006.
- IET Proc. of Information Security, July 2006.
- IEEE Transactions on Software Engineering, Apr. 1990, Apr. 1998, March 2006.
- IEEE Transactions on Knowledge and Data Engineering, July 1989, May 1990, May 1991, Sept. 1991.
- IEEE Conf. on Systems, Man, and Cybernetics, May 1989.
- The 1989 Fifth Generation Computer Systems Conf., May 1989.
- Intl. Conf. on Distributed Computing, 1998.
- OPODIS'99 Intl. Conf. on Principles Of DIstributed Systems, June 1999.
- IAT'99 First Asia-Pacific Conf. on Intelligent Agent Technology, July 1999.
- McGraw Hill, 1996.
- Prentice-Hall, Inc., 1988, 1989.
- Benjamin-Cummings, Inc., 1988, 1989, 1990, 1992.

COMMITTEES AND SERVICE

University Level

- Member, Faculty Search Committee, Associate Director, Ethel Donaghue Center for Translating Research into Practice and Policy (TRIPP), Jan. 2008 to June 2008.
- Member, School of Engineering Dean's Review Committee Member, Oct. 2002 to Jan. 2003.
- Member, Physical Science Review Committee, UConn Research Foundation, term of Oct. 2002 to Spring 2007. Review of proposal set, and review meeting, in Fall and Spring semesters.
- Chair, Engineering Committee, Physical Science Review Committee, UConn Research Foundation, term of Jan. 2004 to Spring 2007. Coordinate all reviews for proposals and submit recommendations.
- Provost's Distance Learning Advisory Committee, Sept. 1994 - June 1997. A new committee formed in Sept. 1994 to address distance learning issues across the university.
- Member, Ad-Hoc Committee on Distance Learning, Apr. 1994 - July 1994. Led by F. Maryanski, this committee has been charged with setting policy regarding distance learning for UConn.
- Member, Technology Infrastructure Task Group of the Educational Delivery Subcommittee of the Strategic Planning Management Committee, Mar. 1994 - July 1994. Led by D. Jordan, this committee contains members from UConn, HGC, and the business community.
- Member, Ad-Hoc Short-Term Guest Professorship Committee, Fall 1993 Competition, UConn Research Foundation.

School Level

- Member, School of Engineering Graduate Committee, Sept. 2004 – Spring 2008.
- Member, Steering Committee, Transportation Institute, Aug. 1998 – June 2001.
- Member, School of Engineering Ad Hoc Committee for BRC Head Search, Mar. 97 - May 1997.
- Member, School of Engineering Graduate Studies Committee, Sept. 2000 to June 2001.
- Member, School of Engineering Graduate & Research Committee, Sept. 1995 - May 1997.
- Area Coordinator representing School of Engineering for University-wide Honors Day Committee, 1988-1989; Presentations given for CS & E on Honors Day, Apr. 5, 1989.
- Graduation Representative for Computer Science & Engineering Department at University Commencement: May 1988, Graduate Ceremony; May 1991, Undergraduate Ceremony.
- Chair of School of Engineering Open House Committee, Aug. 1988 - June 1990.
- Member of School of Engineering Open House Committee, and Computer Science & Engineering Representative, Sept. 1987 - June 1990.

Departmental Level

- Director of Graduate Studies, Computer Science & Engineering Department, June 2001 – present. Responsible for all facets of the graduate program, including admissions, update brochure, and program requirements. Member and Chair, Graduate Program Enhancement Committee, Sept. 2002 – present.
- Industrial Liaison, Computer Science & Engineering Department, Sept. 2002 – present. Works closely with the CSE Department head for funding raising, donations, industry research collaborations, senior design projects for CSE293 capstone design project, etc.
- Member of Faculty Search Committee, Joint Computer Engineering Search, Sept. 2003 – May 2004, Computer Science & Engineering Department.
- Chair and Member of Faculty Search Committee, July 2000 – June 2002, Oct. 2002 – June 2003, Sept. 2004 – May 2006, Computer Science & Engineering Department.
- Chair and Member of Faculty Search Committee, Storrs and Stamford Searches, Sept. 1997 - Aug. 1998, Computer Science & Engineering Department.
- Member of CITI Faculty Search Committee, Feb. 1997 - May 1997, Computer Science & Engineering Department.
- Member of Faculty Search Committee, 1990-1991 and 1987-1988, 1994-1995, Computer Science & Engineering Department; Spring 1991, Electrical & Systems Engineering Department for Asst. Prof. in Residence position.
- Member of Computer Science & Engineering Graduate Program Committee, June 2001 – present.
- Chair and Member of Computer Science & Engineering Graduate Program Committee, June 1998 – May 2001. Responsible for all facets of the graduate program, including admissions, update brochure, and program requirements. As Chair, interact with prospective graduate students in person, via email, and by phone.
- Chair and Member of Computer Science & Engineering Graduate Admissions Committee, Sept. 1997 - May 1998. Responsible for overseeing the entire graduate admissions process for prospective M.S. and Ph.D. students.
- Member of Computer Science & Engineering Graduate Admissions Committee, June 1991 - Aug. 1997. Responsible for reviewing folders of prospective M.S. and Ph.D. students.
- Member of Dean's Awards Recommendation Committee (substitute for PTR member).
- Member of Computer Science & Engineering Graduate Exam Committee, Sept. 1994 - Sept. 1996.
- Member of Computer Science & Engineering PTR Committee, Fall 1996, Fall 1999, Fall 2002, Fall 2003, Fall 2004, Fall 2005, Fall 2006.
- Member, Strategic Planning Committee, CS&E, Feb. 2006 – May 2007.
- Member and Chair of Ad Hoc Committee for Computer Science & Engineering Graduate Program Revision, Mar. 1992 - Sept. 1994. Responsible for the development and implementation of a major revision to the M.S./Ph.D. program and requirements.

PROFESSIONAL SOCIETIES AND ACTIVITIES

Positions of Responsibility

- Affiliate Member, Ethel Donaghue Center for Translating Research into Practice and Policy (TRIPP), Elected December 2006.
- Academic/Industrial Advisory Board Member, Computer Science Department, Central Connecticut State University, Mar. 2000 - present.
- Member, Java IDE (Integrated Development Environment) Selection Subcommittee of the EWTA Application Development Domain, Department of Information Technology, State of Connecticut, Oct. 2002 to Feb. 2003.

- Editorial Advisor, Handbook of Computer Science & Engineering, CRC Press, Inc., A. Tucker (ed.), Jan. 1995 - June 1996. This is a 2000 page volume that attempts to treat the entire discipline. Responsible for developing an outline and soliciting authors for the Software Engineering Section (10 chapters) of the Handbook.
- Associate Editor of VLDB Journal, Fall 1989 - Spring 1996. Responsible for soliciting reviews on articles, collecting responses, and making recommendations regarding acceptance.
- Program Co-Chair, North America, The Ninth Annual IFIP Working Group 11.3 Working Conf. on Database, Security, Aug. 1994 - Aug. 1995, Rensselaerville, NY, Aug. 1995.
- Board of Directors, Greater Hartford Chapter of the ACM, June 1991 - Aug. 1995. Attend monthly meetings and participate in planning of the activities for the Chapter.
- Program Committee Member, VLDB 1990 Conf., Jan. 1990 - May 1990. Responsible for reviewing 15 papers and making recommendations regarding their acceptance.
- Program Committee Member, Fourth Intl. Computer Integrated Manufacturing and Automation Technology Conf., Feb. 1994 - June 1994.
- Program Committee Member, International Semantic Web Working Symposium 2001 (SWWS), July 2001, Stanford University, Stanford CA.
- Program Committee Member, International Semantic Web Conference 2002 (ISCW2002), June 2002, Sardinia, Italy.
- Program Committee Member, Special Track on Semantic Web, held in conjunction with FLAIRS 2002, May 2002, Pensacola, FL.
- Scientific/Program Committee of the IADIS International WWW/Internet 2002 Conference, Aug. 2002, Lisbon Portugal.
- Program Committee Member, Ontologies for Business Information Systems (OntoBIS), held in conjunction with 6th International Conference on Business Information Systems (BIS 2003), June 2003, Colorado Springs, CO.
- Program Committee Member, Special Track on Semantic Web, held in conjunction with FLAIRS 2003, May 2003, FL.
- Scientific/Program Committee of the IADIS International WWW/Internet 2003 Conference, Nov. 2003, Algarve, Portugal.
- Program Committee Member, International Semantic Web Conference 2003 (ISCW2003), Oct. 2003, Sanibel Island, Florida.
- Conference Committee, Second International Conference on Advanced Technologies for Homeland Security (ICATHS'04), Sensing and Information Technology area, August 2004.
- Program Committee Member, International Workshop on Web Semantics - WebS 2004, Aug./Sept. 2004, Zaragoza, Spain.
- Scientific/Program Committee of the IADIS International WWW/Internet 2004 Conference, Nov. 2004, Algarve, Portugal.
- Program Committee Member, International Conference on Web Information Systems and technologies (WEBIST) 2005, Miami, May 2005.
- Program Committee Member, International Workshop on Web Semantics - WebS 2005, Aug./Sept. 2005, Copenhagen, Denmark.
- Program Committee Member, IFIP WG 11.3 XIX Conference on Data and Applications Security, Aug. 2005, Storrs, CT.
- Local Organizing Chair, IFIP WG 11.3 Working Conference on Data and Applications Security, held at Nathan Hale Hotel/UConn, Aug. 2005. Responsible for organizing all details of the conference day-to-day activities from arrival (Aug. 7) to departure (Aug. 10).
- Scientific/Program Committee of the IADIS International WWW/Internet 2005 Conference, Oct. 2005, Lisbon, Portugal.

- Member, Scientific/Program Committee of the IADIS International WWW/Internet 2006 Conference, October 2006, Lisbon, Portugal.
- Program Committee Member, IFIP WG 11.3 XX Conference on Data and Applications Security, July 2006, France.
- Program Committee Member, 5th Intl. Workshop on Web Semantics (WebS 2006), September 2006.
- Program Committee Member, Intl. Conference on Software Engineering Advances, October 2006, Tahiti.
- Program Committee Member, International Conference on Web Information Systems and technologies (WEBIST) 2006, Barcelona, Spain.
- Program Committee Member, IADIS Web Applications and Research 2006 Conference.
- Program Committee Member, IEEE Granular Computing 2006 Special Session on Computer Security and Data Privacy, May 2006.
- Program Committee Member, International Conference on Software and Data Technologies, Setubal Portugal, September 2006.
- Program Committee Member, International Conference on Web Information Systems and technologies (WEBIST) May 2007, Funchal, Madeira - Portugal.
- Program Committee Member, 2nd Intl. Conference on Software Engineering Advances, August 2007, Cap Estereal, French Riviera, France.
- Program Committee Member, 6th Intl. Workshop on Web Semantics (WebS 2007), September 2007.
- Member, Scientific/Program Committee of the IADIS International WWW/Internet 2007 Conference, Real, Portugal, October 2007.
- Program Committee Member, IFIP WG 11.3 XXI Conference on Data and Applications Security, July 2007, California.
- Program Committee Member, International Conference on Web Information Systems and technologies (WEBIST) May 2008, Funchal, Madeira - Portugal.
- Program Committee Member, IFIP WG 11.3 XXII Conference on Data and Applications Security, July 2008, California.
- Program Committee Member, International Conference on Software and Data Technologies, Porto Portugal, July 2008.
- Program Committee Member, 8th International Workshop on Web Semantics (WebS 2008), September 2008, Turin, Italy.
- Program Committee Member, 3rd Intl. Conference on Software Engineering Advances (ICSOFT), October 2008, Sliema, Malta.
- Program Committee Member, 2nd Intl. Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBICOMM), October 2008, Valencia, Spain.
- Member, Scientific/Program Committee of the IADIS International WWW/Internet 2008 Conference, Real, Portugal, October 2008.

Professional and Honor Society Memberships

- American Association of University Professors.
- Association of Computing Machinery.
- IEEE Computer Society.
- IEEE Computer Society Technical Committees on Database Engineering and Software Engineering.
- Member, IFIP WG11.3 on Database Security, Apr. 1992 - present.
- Upsilon Pi Epsilon, the National Computer Science Honorary Society, Nov. 1989 - present.
- Member, Connecticut Academy of Science & Engineering, May 2007 – present.