Sharon Andrews White

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Research Interests

Domain and Architecture Design Languages and support tools / Software Architecture

Education

Ph.D., Computer Science, Center for Advanced Computer Studies, University of Southwestern Louisiana, Lafayette, LA., May 14, 1994.

M.S., Computer Science, Center for Advanced Computer Studies, University of Southwestern Louisiana, Lafayette, LA., May 1987.

B.F.A., Advertising Design. Northeast Louisiana University, Monroe, LA.

Professional Experience

Program Chair, Software Engineering Program. August 1997 - present. University of Houston Clear Lake, Houston, TX. Duties include course staffing, course scheduling, curriculum development, implementation of new web-based initiatives, all program planning.

Assistant Professor of Software Engineering. August 1995 - present. Software Engineering Program, University of Houston Clear Lake, Houston, TX. Courses developed and taught: Software Architecture, Software Reuse and Reengineering, Software Engineering, Personal Software Process, Programming in C. All but the C class were taught as both regular local classes and distance education classes. Distance education delivery was either strict web-based or live lecture broadcast into multiple sites with web-support.

Visiting Assistant Professor*:* Computer Science Department, Tulane University, New Orleans, LA. Courses taught: Fortran77 and Ansi C. July 1994-July 1995.

Research Assistant: with Dr. Larry. E. Albright in conjunction with the Apparel Computer Integrated Manufacturing Center, University of Southwestern Louisiana, Lafayette, LA. Grant title: Knowledge Representation of Human Expertise in Garment Manufacturing Systems, funded by the Louisiana Board of Regents. Sept. 91 - May 93.

Instructor: Computer Science Department, Northeast Louisiana University, Monroe, LA. Courses taught: Programming Languages, Data Structures, File Organization, Computer Architecture, Pascal, Cobol, and various microcomputer applications service courses on the Macintosh and IBM-PC. Sept. 87 - May 90.

Teaching Assistant: lecturer, Computer literacy. University of Southwestern Louisiana, Lafayette, LA. Sept. 93 - May 94.

Research Assistant: with Dr. Joseph. E. Urban, Center for Advanced Computer Studies, University of Southwestern Louisiana, Lafayette, LA. Design and implementation of a real-time software specification language and its associated support software in accordance with a research grant funded by Lockheed Software Technology Center, Austin, Texas. May 86 -- May 87.

Apparel Manufacturing: assistant merchandise manager, and advertising designer, for a subdivision of Palm Beach Inc.

Refereed / Reviewed Publications

"Experience with a process for Software Engineering web-course development", Sharon A. White, *Proceedings of Frontiers in Education Conference*, International IEEE Computer Society Sponsored conference, October 18-21, 2000, Kansas City, Missouri.

"From Creational Craftsmanship to Engineered Construction", Daniel W. Drew and Sharon A. White, *Proceedings of ASME (American Society of Mechanical Engineers) and API Energy Information Management* (ASME-99) Feb. 1999, Houston, TX.

"Architectural Reuse in Software Development", S. A. White and C. Lemus, *Proceedings of 20th International Computers in Engineering Symposium* (ASME-ETCE98) Jan. 1998, pp. 1-8.

"The Software Architecture Process", S. A. White and C. Lemus, *Proceedings of ASME and API Energy Information Management - Incorporating ETCE*, (ASME-ETCE97) pp. 170-175 Houston TX, Jan. 29 - Feb 2, 1997.

"Architecture Reuse through a Domain Specific Language Generator", S. A. White and C. Lemus, *Proceedings of WISR8: The eight annual international workshop on Software Reuse*, pp.: White-S-A-1 : White-S-A-6, March 23-26, 1997, Ohio State University.

"Architectural Design Language Generation Project", S. A. White, *Proceedings of the 1996 workshop, "A NASA Focus on Software Reuse"*, pp. 631-633, September 24-27, 1996, George Mason University, Fairfax, Virginia.

"Software Architecture Design Domain", S. A. White, *Proceedings of the Second World Conference on Integrated Design and Process Technology*, Vol. 1. pp. 283-290, Austin, TX. Dec. 1-4, 1996.

"A Design Metalanguage for Design Language Creation", S. A. White, *Proceedings of ASME and API Energy Information Management - Incorporating ETCE*, (ASME-ETCE96) Houston TX, Jan. 29 - Feb 2, 1996,Volume I Computers in Engineering, pp. 135-144.

"A Framework for the development of Domain Specific Design Support Systems", S. A. White, *Proceedings of the First World Conference on Integrated Design & Process Technology*, Austin, TX. IDPT- Vol 1, pp. 37-42, Dec. 6-9, 1995.

"Development of a Language-based Framework for the Automatic Generation of Domain-specific Design Languages", S. A. White, *Proceedings of the ASME Symposium on Computers in Engineering*, (ASME-ETCE95) Houston TX, Jan. 29 - Feb 1, 1995, PD vol. 67, pp. 23-32.

"Integration of the Design and Realization Phases of Apparel Manufacturing", S. A. White and L. E. Albright, in *Proceedings of the Fifth Annual Academic Apparel Research Conference* (AARC), Lafayette LA., Feb. 17-18, 1994, pp. 5-1:5-13.

Published Technical Reports

"Domain Specific Architectural Design Language", S.A. White and C. Lemus, project report, Institute for Space Systems Operation Annual Research Report, pp. 38 -40, 1995-1996.

"Domain Specific Architectural Design Language Generation", S.A. White and C. Lemus, project report, Institute for Space Systems Operation Annual Research Report, pp. 55-58, 1996-1997.

"Domain Specific Architectural Design Language Generation", S.A. White and C. Lemus, project report, Institute for Space Systems Operation Annual Research Report, pp. 62-69, 1997-1998.

"Advanced Air Traffic Transportation Technologies final project report", (includes 14 product line reports - culmination of a two year project), Spring Semester 1999, UHCL web site: http://129.7.160.81/atc/ Authors: Sharon A. White, Charles Mckay, et. al.

"The Repository Based Software Engineering Program", S. A. White, Presentation slides published within Proceedings of the 1996 workshop, "A NASA Focus on Software Reuse", pp. 53-62, September 24-27, 1996, George Mason University, Fairfax, Virginia. (The ISSO project is discussed within this)

"Front-End Software Life Cycle Technique and Tool Research in Support of the Lockheed Ada Development Environment (Advent)", J. E. Urban, A. M. Wilson, S. A. White, C. W. Kwong, V. T. Puah, S. Thanawastien, B. Belkhouche, D. K. Lanclos. Technical report to Lockheed Software Technology Center in Austin, TX, Center for Advanced Computer Studies, University of Southwestern Louisiana, November 1989.

Dissertation

"A framework for the Integration of the Design and Realization phases of Product Development", S. A. White, Ph.D. thesis. Center for Advanced Computer Studies, University of Southwestern Louisiana, Lafayette, LA. May 1994.

Teaching Related / Education Publications

(The effort, quantity, and quality of these publications are most similar to book publications and should be considered somewhat equivalent to journal or book publications for the purpose of tenure review.)

"Introduction to Software Engineering", Author Sharon A. White, Publisher UHCL. Includes the publication of all course content and related support materials on the UHCL web site. Content and web site underwent extensive review by multiple reviewers before released. To review see http://nas.cl.uh.edu/whites/list.html, find the link to the course on this page - click on the link to this course - enter userid Tim and password Timm.

"Introduction to Personal Software Process", Author Sharon A. White, Publisher UHCL. Includes the publication of all course content and related support materials on the UHCL web site. Content and web site underwent extensive review by multiple reviewers before released. To review see http://nas.cl.uh.edu/whites/list.html, find the link to the course on this page - click on the link to this course - enter userid Tim and password Timm.

In progress: "Software Architecture", Author Sharon A. White, Publisher UHCL. Includes the publication of all course content and related support materials on the UHCL web site. Content and web site will undergo extensive review by multiple reviewers before being released.

Funded Awards

Teaching Related Awards

"Web based course development" - Instructional Technology Faculty Development workshop, Summer 1999 - **awarded $2500.00**

Awarded 2 courses releases 1999 for design and development of web-based Software Engineering course. (1 summer release valued at ~ $5,000.00, and 1 Regular session release valued at approximately $2000.00)

Awarded 2 courses releases 1999 for design and development of web-based Personal Software Process course. (1 summer release valued at ~ $5,000.00, and 1 Regular session release valued at approximately $2000.00)

Awarded 2 courses releases 2000-2001 for design and development of web-based Software Architecture course. (4,000.00 approximate value for two regular session releases)

"Travel " Computer Science Software Engineering Conference", FDSF ($**1233.00 awarded**) in fall of 1995.

"Travel ", 9th Software Engineering Education Conference, Daytona Florida, Feb. 1996. FDSF (**$1735.00 awarded** for travel)

"Travel Grant": 11th Software Engineering Education Conference in Feb. 1998 - FDSF **awarde**d ~**$1400.00**

"Software Architecture course development" TQM proposal on Sept 19, 1997 (for $5,574.00) - **$3,000 awarded**

Research Related Awards

"UH-JSC AEROSPACE Post-doctoral fellowship" **(Awarded $153,345.00) --** funded a postdoctoral research position for three years, Sept. 21, 1995.

"Analysis of Information Exchange and Human-Centered Automation Tools in the Joint NASA/FAA program for Advanced Air Traffic Transportation Technologies", Honeywell Inc. Houston Engineering Center, Houston, Texas - AATP process modeling project - **awarded** 12/01/97. - **20,922.36**.

"Computer Science Summer Camp for Girls": FRSF - special fund for Summer Camp proposal writing - **awarded $2,000.00**

"Graphical User Interface Generation project" UHCL FRSF **awarded ($4,035.00)**

FRSF supplement to write a NSF proposal, **awarded 1 course release (value approximately $2,000.00)** summer 1998.

FRSF proposal for summer research **($5,337.12 - awarded**) summer 97.

"UHCL FRSF proposal for Research Assistant. **(6,250.00 awarded)** Jan- May 1996.

UHCL FRSF proposal for Research Assistant. **(6,250.00 awarded)** Sept 96 - May 1997.

"Distance Education Support": TQM proposal for video-conferencing equipment. - **awarded** one video conferencing setup for IBM Austin ($**4,000.00** approximate value).

Untitled: RBSE/RICIS funded 3 course releases during 1995 / 96 to support research activities. ($**6,000 award**)

Untitled: RBSE/RICIS funded full summer support during summer of 1996. (approximately **$15,000 award**)

"Domain Specification and Design Language Generation Project": RBSE/RICIS Funded a Research Assistant for 10 hours per week for Nov and Dec 1995, increased funding to 20 hours per week Jan - May. 1996. (Approximately **4,000.00 awarded**)

"Software Architecture Design Languages", UHCL FRSF **($2322.00 awarded** for research assistant support)

Proposals that were submitted but not funded.

Texas Advanced Research Project (ARP) proposal on June 12, 1997 ($102,989.00) not funded.

NSF POWRE proposal on June 30th 1997 ($74,863.00) not funded.

RUG Grant to NASA JSC ($59,989.00) on March 10, 1997. not funded. "Domain Analysis and Component Classification for reuse of shuttle components".

NSF CISE/CCR joint ARPA proposal ($199,676) on Jan. 10. 1997 - not funded. Rated competitive.

"Domain Engineering the Space Shuttle: First Steps", NASA RUG-96 in Feb. 1996 (59,000) - rated technically excellent but not funded.

Major Research Projects Described

All my research has centered around the notion of defining a language that will allow a given domain to be formally specified and this knowledge then used to allow design problems within that domain to be specified and analyzed with respect to the captured domain specific rules. This analysis is to occur early in the design phase of product - during architectural design - not during detailed design which has been the current state of design analysis and has proven to be too late in the process to catch important architectural design errors. This work has direct application to reuse of design knowledge. The following describes my work in this area.

Domain Specification.

My research into this area involved trying to determine a generic set of language specification constructs that would form a domain specification language that could be used to specify any domain of application (as in the context of a software application). This research took the approach of development of prototype languages which were tested in both physical application domains (manufacturing) and logical domains (software). Exploration into this area began with my dissertation where I defined a domain specification language for manufacturing and tested it on apparel manufacturing and kitchen-ware manufacturing domains. This research was funded by a three year Institute for Space Systems Operations UH/JSC Postdoctoral Research Fellowship award in 1995, and most of the other small supporting awards listed in this resume.

Domain Modeling.

Domain Modeling is also a research area since it is one of the problems that are directly addressed by my domain specification research. The domain specification language forms the tools to be used to perform effective domain modeling. This research, since it is directly related to the specification research, also began with my dissertation and was funded by the postdoctoral award and several other small awards listed in this resume. Also, as a result of my experience in this area I, along with my Co-PI Dr. Charles Mckay, was awarded a grant in 1998 to model the domains of fourteen product lines of the Advanced Air Traffic Control Systems of the Federal Aviation Administrations, funded by Honeywell Corporation of Houston, TX.

Software Architecture Design Languages.

This research is also a direct sub-problem of the domain specification research where the set of domains to be specified are assumed to be a set of architectural design domains (or what others have called " architectural styles"). This research involved trying to verify that the generic domain language could adequately specify several existing architectural styles. This resulted in fine-tuning of the domain specification language, and the creation of multiple versions of the language. A domain language can be defined to the point that it becomes a generic architecture description language or even more specifically to become a domain specific architectural design language that can be used to specify software architecture designs of a particular style. The more specific the language the more effective the automated design guidance and checking rules that can be coded into the language processor. Almost all listed research related awards supported this research either directly or indirectly.

Graphical Domain Specification

As a result of implementation of various prototype domain specification systems my Research Assistants and I created, it became evident that usage of the domain specification language was difficult and tedious so that a graphical specification method of specification was needed to reduce the learning curve associated with the domain language. This resulted in research into the automatic translation from a given language specification (in the form of a BNF) to a graphical interface tool that would allow the domain to the specified graphically and would generate sentences in the language from the graph. Automation of the translation was necessary since the language itself was not static, but changed frequently. This project was directly supported by one small UHCL grant and indirectly supported through the other grants I received.

Invited Talks / Presentations

Presentations external to UHCL

"MS in Software Engineering" - presented to NASA/JSC, Houston, TX. Fall 1999

"MS in Software Engineering" - presented to Reliant Energy, Houston, TX. Fall 1999

"MS in Software Engineering" - presented to Texas Instruments, Fort Bend County TX. Fall 1999

"Women in SEM", presented to the Houston Society for Women Engineers meeting, 1998.

"MS in Software Engineering" - presented to IBM, Austin Texas - on multiple occasions during the period 1995-1998.

"Architecture reuse in Software Development", presented at 20th International Computers in Engineering Symposium, Jan. 1998.

"RBSE and ROSE" Twenty minute presentation at "A NASA Focus on Software Reuse", George Mason University, Fairfax, Virginia, Sep, 24-27, 1996.

"Architecture Reuse through a Domain Specific Language Generator", presented at The eighth annual international workshop on Software Reuse, Ohio State University, March 1997.

"Software Architecture Design Domain", presented at Second World Conference on Integrated Design and Process Technology Conference, Austin Texas, Dec. 1-4, 1996.

"Development of a Language Based Framework for the Automatic Generation of Domain Specific Design Languages", presented to American Society of Mechanical Engineers Symposium on Computers in Engineering in Houston, TX. Jan 29-Feb 1, 1995.

"A framework for the Development of Domain Specific Design Support Systems" presented at the First World Conference on Integrated Design and Process Technology in Austin, Texas, Dec. 7-9, 1995.

"A Design Metalanguage for Design Language Creation"', presented at the American Society of Mechanical Engineers Symposium on Computers in Engineering in Houston, Texas. Jan. 29-Feb 2, 1996.

UHCL Invited Presentations

Presented a two-hour lecture on Domain Specification Languages and Software Architecture Design Languages to Dr. Colin Atkinson's fall 1995 Software Architecture Class at UHCL.

Presented an overview of Domain Specification Languages to a group of 40 Motorola executives that were visiting UHCL in the fall of 1995.

Presented an overview of the Domain Specification Research Project to Dr. Sadegh Davaris' Research Methods class at UHCL in the fall of 1995.

Presented "Software Engineering and Software Architecture" to Terry Feagan's Research Methods class at UHCL in 1997.

Presented "Design Language Generation" to Glen Houston's Research Methods class at UHCL in 1998.

Teaching

Distance Education Teaching

Beginning in fall 1995, I taught SWEN courses to IBM-Austin from the UHCL distance classroom via 2-way synchronous live broadcast, then in 1998 this was expanded to offerings to Fort Bend County also. Each semester I have been at UHCL I have been heavily involved with teaching distance students. Starting in 1999, this distance education role was greatly expanded to include the development of web-based courses, and in spring 2000 I began the delivery of developed web-based courses. I have acquired a great deal of knowledge and experience with the web-based development process, the instructional design of the courses themselves, the delivery of the course as well as the methods and necessary means of communication to support such a course.

Curriculum Development

Revised the Software Engineering MS curriculum in 1997 and 1998 to provide more consistent and frequent offerings of existing SWEN graduate classes, as well as made needed adjustments to course prerequisite structure and course descriptions. One major problem had been that the previous curriculum had proved to be too broad and the courses too infrequently offered to serve the students (This was due to the track structure that split the curriculum into 5 tracks. These tracks proved to be impossible to implement with any consistency.) As a result the current SWEN program is a much more reliable program with respect to student and faculty scheduling. In addition, I initiated the development of three new courses to the curriculum, Software Engineering Tools, Requirements Engineering, and Personal Software Process.

New Course Development

A new course, Personal Software Process, was added to the SWEN program in 1998. I developed this new course during 1998 and 1999. It will be taught this summer 2000. I developed a new version of Software Engineering, Software

Architecture and Software Reuse and Re-engineering. These were courses that existed in the degree but I developed new versions from that taught by previous professors.

During 1999, I developed web-based versions of SWEN 4432 (Software Engineering) and SWEN 4435 (Personal Software Process) . These two development efforts were major undertakings. It took a full year of development time for the development of these courses. I will begin development of a third course in SWEN in fall 2000.

During spring 2000 SWEN 4432 was field tested as a web-based course to 68 students. The course proved to be very well designed, as rigorous as the traditional class (if not more so). It was well received by the students, though they felt the workload was heavy.

During fall 2000 and spring 2001 I developed SWEN 5233 (Software Architecture) as a web based course. It will be tested in the fall of 2001.

New initiatives: New Degree Programs and Certificate Programs.

In response to the interest of UHCL to offer Web-based courses and degrees, Dr. Charles Mckay, Dean of the School of Natural and Applied Science, and I worked together to produce a 3 year plan for the delivery of a Web-based Software Engineering Degree. We are at the end of the first year of implementation of this plan. At this time there have been 5 SWEN web-based courses developed, three of which have already been tested. As part of this plan, we also will begin a 3-step certification program in SWEN. This program will allow students to earn up to three certificates in Software Engineering.

Teaching Improvement efforts

Attended UHCL/ITC Distance Education faculty Development Workshop (1 week long) - summer 1999.

Attended UHCL/ITC follow up Distance Education Faculty Development workshop (2.5 day) - fall 1999.

Attend UHCL/ITC Web-CT 1 day training workshop - fall 1999.

Attended the Eleventh Conference on Software Engineering Education, Feb. 22-25, 1998, Atlanta, GA.

Attended the UH-Enron Annual Teaching Conference, Feb. 1996, Houston, and TX.

Attended the Ninth Conference on Software Engineering Education, April 21-24, 1996, Daytona Beach, FL.

Attended a UH/ITC Distance Learning Workshop in 1996.

Direction of Individual Student Research (Research Assistants, Independent Studies, Capstone projects)

Research Assistants.

"Software Architecture Design Language Project", Directed, and funded 3 research assistants via research monies awarded by RICIS.

Independent studies (1 semester graduate level project)

SWEN 5939: Software Architecture Design Languages (1 student), spring 1996

CSCI 5838: Translation and Compilation (2 students) spring 1996

SWEN 5939: Interface Development using Java (1 student) summer 1996

SWEN 5939:Architecture Description Languages (1 student) summer -1996

CSCI 5939: Translation with Javacup (2 students) summer - 1996

CSCI 5939 "GUI Development with Java " (2 students) summer - 1997

CSCI 5939: "Architecture Description Languages", (1 Student) - fall 1997.

CSCI 5939: SoftwareDevelopment with Java (2 students) spring 1998

SWEN 5939: Software Product Development (1 student) spring 1998

Selected Capstone Projects (all capstone projects are two semester long graduate level projects, not all are listed**)**

"Reverse Engineering the Haltoc Translator", Rockwell International (Now USA) Project, 5 Students Assigned. Mentor - Ron Schumaker. Project was very large and complex. Required reverse engineering a Hal-S to C translator so that Rockwell could modify it and maintain it. Spring - fall 1996

"GPIP", Rockwell project, Development of a record and playback GUI Development tool. (5 Students) Summer - fall 1996.

"Graphical user interface generation": Implementation of the generation of a GUI from a domain specification, project was an implementation of portions of the research I had completed on the architecture design language generation project. (5 IBM Austin Students - this was my first distance capstone course.) Fall - spring 1996

"Reverse Engineering DFR", reverse engineering project (5 students) summer - fall 1997

"Software Inspection Tool", Inspection tool development (3 students,) summer - fall 1997

"Minds eye Fiction", Web commerce tool development project (3 students) summer - fall 1997

"Nasa EVA project", Documentation and implementation of Nasa EVA display (5 students), fall - spring 1997.

"AATP", Honeywell Capstone project, Domain modeling of 14 project lines of the year 2005 next generation Air Traffic Control systems. Spring 1998 - summer 1998 (2 students)

"AATP continued", summer 1998 - fall 1998 (4 IBM Austin Students)

"AATP continued", fall 1998 - spring 1999 (2 Students) Finished results of the AATP project can be viewed at http://129.7.160.81/atc/

"Web Course Creation Database project", (7 students) fall 99- Spring 00.

"Software Error Prediction Project", Nasa project, (1 student) http://129.7.160.81/webproject/rf/CapMain.html - fall 99-spring 00.

"Open ebook project", (1 SWEN student as leader, multiple CS student team members) http://129.7.160.81/webproject/mindseye/index.htm, fall 99 - spring 00.

Thesis Directed

Thesis Chair for David Pruett, "Space Command and Data Handling Systems Domain Architecture", MS in Software Engineering May 2000.

Thesis Co-Chair for Lia Tusanotte-Cisnero, "Modeling Ontologies as Representation Mechanisms for Reuse Software Environments", MS in Software Engineering May 1998.

Thesis Committee member for Jim Dell, "An architecture for the Automated Crew Alert System on the International Space Station", MS in Software Engineering May 1998.

Thesis Chair for Daniel Drew, "Towards a True Software Engineering Discipline", MS in Software Engineering May 1997.

Service

Service to the University

Software Engineering Program Chair 1997 - present. (No extra compensation or release time is provided to the program chair, it is basically a duty that is a service to the university, much as committees chair.)

Member Distance Education intellectual property and copyright working group - 1999 - present.

Member Web Based Program Development Working Group 1999 - present.

Member of the June Hyer-Sobrino Scholarship committee for UHCL - 1998-99.

President of the June Hyer-Sobrino Scholarship committee for UHCL - 1999-2000.

Member UHCL NAS Curriculum Committee 1998-99, 1999-2000.

Member University Honesty Task Force, 1999-2000.

Chair SWEN Admissions committee - fall 1998 - April 2000.

Chair SWEN Faculty Search Committee - fall & spring 1997 (this took a large amount of work and time).

Member SWEN Admissions committee - 1996- summer 1997.

Member NAS library committee - 1995 - 1996

Member NAS Scholarship committee - 1997 - 1998

Submitted three recruiting proposals to NAS outlining three recruiting activities that could be employed (response to a call to faculty to submit such proposals) spring 1996.

Service to Professional Organizations

Reviewer, and panel member, for National Science Foundation's CISE portion of the Computer Science, Engineering, and Mathematics Scholarships Program (CSEMS) for FY 2000, in October 2000. (Invited as of 8/16/00)

Reviewer, and panel member, for National Science Foundation's CISE (Computer Integrated Software Engineering) portion of the ENG/CISE Combined Research-Curriculum Development (CRCD) program in July of 1999.

Reviewer, and panel member, for National Science Foundation's CISE portion of the Computer Science, Engineering, and Mathematics Scholarships Program (CSEMS) for FY 2000, in November of 1999.

Reviewer and Program Committee Member of ASME Symposium on Computers in Engineering ETCE-ASME 1998

Reviewer and Program Committee Member of ASME Symposium on Computers in Engineering ETCE-ASME 1999

Committee Member for SDPS International Conf. on Integrated Design and Process Technology - December 1997.

Panel member on "Software Reuse within NASA" panel held at "A NASA Focus on Software Reuse", September 24-27, 1996, George Mason University, Fairfax, Virginia

Reviewer for the 8th IEEE International Conference on Tools with Artificial Intelligence.

Reviewer for Special Issue of International Journal of Artificial Intelligence Tools, 1995.

Reviewer for 1994 ACM regional conference in Tuscaloosa Alabama.

Session Co-chair for the "Computer Applications in Design and Process Technology" at the First International Conference for the Integration of Design and Process Technology (SDPS 1995).

Service to the Community

Elected Member of the Brookforest Community Association Board of Directors, 1999-2002.
Landscape Director Brookforest Community Association 1999-2002.

Organizations

Association for Computing Machinery, IEEE Computer Society, 1995 Founding Member of Society for Design and Process Science, Systers (Web-based organization for women scientists and engineers), Upsilon Pi Epsilon, Daughters of the American Revolution, Society of Women Engineers, United States Dressage Federation, Houston Dressage Society, Friendswood English Riding Club, Gulf Coast Womens Equestrian Association.