

Ethan V. Munson

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Education

- Ph.D. Computer Science, University of California, Berkeley, 1994
Dissertation: *Proteus: An Adaptable Presentation System for a Software Development and Multi-Media Document Environment.*
Supervised by Michael A. Harrison.
- M.S. Computer Science, University of California, Berkeley, 1989
Report: *Enhancements to Integrated Bibliography Processing.*
Supervised by Michael A. Harrison.
- B.A. Computer Science, University of California, San Diego, 1986 (with honors)
- B.A. Psychology, University of California, San Diego, 1978

Professional Experience

Principal Appointments

- University of Wisconsin-Milwaukee, College of Engineering and Applied Science, Associate Dean for Academic Affairs, August 2015 – present.
- University of Wisconsin-Milwaukee, Center for Advanced Embedded Systems: Acting Director, 2014-15; Director, 2015 – present.
- University of Wisconsin-Milwaukee, Co-Chair for Computer Science, Department of Electrical Engineering and Computer Science. July 2012 – August 2015.
- University of Wisconsin-Milwaukee, Professor, Department of Electrical Engineering and Computer Science. August 2011 – present.
- University of Wisconsin-Milwaukee, Associate Professor, Department of Electrical Engineering and Computer Science. August 2000 – August 2011.
- University of Wisconsin-Milwaukee, Assistant Professor, Department of Electrical Engineering and Computer Science. August 1994 – August 2000.
- UC Berkeley, Graduate Student Researcher. Supervised by Professors Susan L. Graham and Michael A. Harrison, 1987–1994.

- UC Berkeley, Teaching Assistant (Graduate Student Instructor), CS 188, Introduction to Artificial Intelligence, Fall 1986 and Spring 1987.
- Statistical Consultant, self-employed, 1983–1986.
- Veterans Administration Medical Center, San Diego, Computer Programmer and Psychiatric Research Assistant, 1978–1983.

Visiting Appointments

- Universidade de São Paulo – São Carlos, Brazil, Pesquisador Convidado (Visiting Researcher). Instituto de Ciências Matemáticas e Computação, June–August 2005.
- Universidade de São Paulo – São Carlos, Brazil, Pesquisador Convidado (Visiting Researcher). Instituto de Ciências Matemáticas e Computação, February–August 2004.
- Université Pierre Mendès-France, Grenoble, France, Visiting Associate Professor, Institut Universitaire Technologique II, September 2003–January 2004.
- INRIA Rhône-Alpes, Visiting Researcher, projet WAM, Montbonnot (Grenoble), France. July–August 2003.
- INRIA Rhône-Alpes, Visiting Researcher, projet Opéra, Montbonnot (Grenoble), France. July–August 2000.

Scholarly Accomplishments

Notes:

- Citations are presented in reverse chronological order, but numbered in normal chronological order.
- Where available, references list acceptance rate, estimated percent of contribution, and number of citations shown by Google Scholar as of May 1, 2011 (when I sought promotion to Professor).

Book Chapters

4. E. V. Munson. “Unicode,” in R. Alhajj and J. Rokne. *Encyclopedia of Social Network Analysis and Mining*. Springer-Verlag, Sept. 2014.
3. E. V. Munson. “Document Representations,” *Encyclopedia of Database Systems*, Springer-Verlag, October 2009.
2. E. V. Munson and M. G. C. Pimentel. “Specialised Documents,” in *Web Accessibility: A Foundation for Research*, S. Harper and Y. Yesilada, editors. Springer-Verlag, 2008. (Contribution: 50%, Citations: 4)
1. E. V. Munson and Y. Tsymbalenko. “Searching for Images on the Web Using Textual Metadata,” in *Web Document Analysis: Challenges and Opportunities*, World Scientific Series in Machine Perception and Artificial Intelligence, Vol. 55, 2003. (Contribution: 60%)

Research Journal Publications

12. J.R. Reisel, M. Jablonski, E. Munson, and H. Hosseini. “Peer-led team learning in mathematics courses for freshmen engineering students,” *Journal of STEM Education*, 15(2), 2014.
11. C. Thao and E. V. Munson. “Using Versioned Trees, Change Detection and Node Identity for Three-Way XML Merging,” to appear in *Computer Science Research & Development*, Springer-Verlag, accepted for publication in November 2013.

10. J.R.Reisel, M. Jablonski, H. Hosseini, and E. Munson. “Assessment of factors impacting success for incoming college engineering students in a summer bridge program,” *Int. J. of Mathematical Education in Science & Technology*, 43(4), June 2012, pages 421-433. (Contribution: 10%)
9. J. Dabrowski and E. V. Munson. “40 Years of Searching for the Best Computer System Response Time,” *Interacting with Computers*, 23(5):555-564, September 2011. (Contribution: 30%)
8. C. Prazeres, M. G. C. Pimentel, E. Munson, and C. Teixeira. “Toward Semantic Web Services as MVC Applications: from OWL-S via UML,” *Journal of Web Engineering*, 9(3), 243-265, September 2010. Rinton Press, Paramus, NJ, USA. (Contribution: 10%)
7. M. Wu, C. Thao, X. Mu, and E. V. Munson. “A fisheye viewer for microarray-based gene expression data,” *BMC Bioinformatics* 2006, 7, page 452 (7 pages total). Peer-reviewed. (Contribution: 5%, Citations: 4)
6. C. H. O. Jardim, R. de F. B. Neto, R. P. Godoy, H. M. B. Ribas, E. V. Munson and M. G. C. Pimentel. “Web Services Enabling Ubiquitous Computing Applications: Lessons Learned by Integrating Ubiquitous e-Learning Applications,” *International Journal of Web Services Practices*, 1(2), 142–152, December 2005. (Contribution: 5%)
5. T. Cumararatunge and E. V. Munson. “Memory Scalability in Constraint-based Multimedia Style Sheet Systems,” special issue of the *Journal of Digital Information* on “Performance Aspects of Digital Information Systems”, 1(5), January 2000. (Contribution: 25%)
4. P. M. Marden, Jr. and E. V. Munson. “PSL: an Alternate Approach to Style Sheet Languages for the World Wide Web,” *Journal of Universal Computer Science*, 4(10):792–806. October 1998. (Contribution: 25%)
3. E. V. Munson. “A New Presentation Language for Structured Documents.” *Electronic Publishing: Origination, Dissemination, and Design*, 8(2–3), 125–138, September 1995 (actual date of publication, September 1996). Originally presented at *EP96: The International Conference on Electronic Documents, Document Manipulation, and Document Dissemination*, Palo Alto, CA, September 1996. (Contribution: 100%, Citations: 13)
2. M. A. Harrison and E. V. Munson. “Numbering Document Components,” *Electronic Publishing: Origination, Dissemination, and Design*, 4(1):43–60, March 1991. (Contribution: 80%, Citations: 10)
1. M. A. Harrison and E. V. Munson. “On Integrated Bibliography Processing,” *Electronic Publishing: Origination, Dissemination, and Design*, 2(4):193–209, December 1989. (Contribution: 75%, Citations: 10)

Magazine Publications (Editorial Review)

1. P. M. Marden, Jr. and E. V. Munson. “Style Sheets: Standards, not Implementations, Matter in the Long Term,” *Computer*, Internet Watch column, November 1999, pages 123–125. (Contribution: 35%)

Conference Publications (Full Length)

36. Luiz F. Gonçalves, Leandro G. Vasconcelos, Ethan V. Munson, and Laércio A. Baldochi. Supporting adaptation of web applications to the mobile environment with automated usability evaluation. In *Proceedings of the 31st Annual ACM Symposium on Applied Computing (SAC '16)*. ACM, New York, NY, USA, 787-794. DOI: <http://dx.doi.org/10.1145/2851613.2851863>
35. R. R. Hardt and E. V. Munson. “An Empirical Evaluation of Ant Build Maintenance Using Formiga in *Proceedings of ICSME 2015: International Conference on Software Maintenance and Evolution*, Bremen, Germany, Sept 2015, pages 201–215.

34. A. Michetti, E. Munson and M. G. Pimentel. "A Nonintrusive Approach for Implementing Single Database, Multitenant Services from Web Applications," in *Proceedings of ACM SAC 2014*, Gyeongju, Korea, March 2014, 751–756 (acceptance rate 31%, Contribution: 10%).
33. C. Thao and E. V. Munson. "Using Versioned Tree Data Structure, Change Detection and Node Identity for Three-Way XML Merging," in *Proceedings of ACM Document Engineering 2010*, Manchester, UK, September 2010, 77-86. Received conference Best Paper Award. (acceptance rate 31%, Contribution: 25%, Citations: 0)
32. Horwitz, S., Rodger, S. H., Biggers, M., Binkley, D., Frantz, C. K., Gundermann, D., Hambruch, S., Huss-Lederman, S., Munson, E., Ryder, B., and Sweat, M. 2009. "Using peer-led team learning to increase participation and success of under-represented groups in introductory computer science," in *Proceedings of the 40th ACM Technical Symposium on Computer Science Education* (Chattanooga, TN, USA, March 04 - 07, 2009). SIGCSE '09. ACM, New York, NY, 163-167. (Contribution: 5%, Citations: 9)
31. C. Prazeres, C. Teixeira. E. V. Munson, M. G. Pimentel. "Semantic web services: from OWL-S via UML to MVC applications," in *Proceedings of ACM SAC 2009*, Honolulu, Hawaii, March 2009, 675-680. (acceptance rate 29%, Contribution: 10%, Citations: 0)
30. R. Hardt, E. V. Munson and H. Nguyen. "A Search Engine for Web Images using Text Stemming," in *Proceedings of the Fourth International Conference on Web Information Systems and Technology (WEBIST 2008)*, Funchal, Portugal, Volume 2, pages 223-230, May 2008. (Contribution: 25%, Citations: 0)
29. C. Thao, E. V. Munson, T. N. Nguyen. "Software Configuration Management for Product Derivation in Software Product Families," in *Proceedings of the 15th IEEE Conference on Engineering of Computer Based Systems (ECBS 2008)*, Belfast, UK, April 2008, pages 265-276. (Contribution: 25%, Citations: 10)
28. T. Telecken, E. V. Munson, J. Valdeni de Lima. "Applying Markup Language Resources in the Specification of Visual Alphabets and Visual Sentences," In *Proceedings of the 2008 ACM Symposium on Applied Computing (SAC 2008)*, Fortaleza, Ceara, Brazil, pages 222-227, March 2008. (acceptance rate: 35%, Contribution: 20%, Citations: 0)
27. R. G. Cattelan, C. Teixeira, H. Ribas, E. Munson and M. da G. C. Pimentel. "Inkteractors: interacting with digital ink," In *Proceedings of ACM SAC 2008*, Fortaleza, Brazil, March 2008, 1246-1251. (acceptance rate: 35%, Contribution: 10%, Citations: 6)
26. S. Gill and E. V. Munson. "A Version-Aware Tool for Design Rationale," *Proceedings of the 2006 Brazilian Symposium on Multimedia and the Web (Webmedia 2006)*, CD proceedings, Natal, Brazil, November 2006. (Acceptance rate: 28%, Contribution: 20%, Citations: 1)
25. T. N. Nguyen, E. V. Munson, J. T. Boyland and C. Thao; , "Multi-level configuration management with fine-grained logical units," in *31st EUROMICRO Conference on Software Engineering and Advanced Applications*, pages 248- 255, Sept. 2005. (Acceptance rate: 45%) (Contribution: 10%, Citations: 0)
24. T. N. Nguyen, E. V. Munson, and C. Thao. "Managing the evolution of Web-based applications with WebSCM," in *Proceedings of the 21st IEEE International Conference on Software Maintenance, 2005. ICSM'05*, pages 577-586, Sept. 2005. (Acceptance rate: 31%, Contribution: 20%, Citations: 2)
23. T. N. Nguyen, E. V. Munson, and C. Thao. "Object-oriented configuration management technology can improve software architectural traceability," in *Third ACIS International Conference on Software Engineering Research, Management and Applications*, Aug. 11-13, 2005, pages 86-93. (acceptance rate: 48%, Contribution: 20%, Citations: 5)

22. C. H. O. Jardim, R. de F. B. Neto, R. P. Godoy, H. M. B. Ribas, E. V. Munson and M. da G. C. Pimentel. "Web Services Enabling Ubiquitous Computing Applications: Lessons Learned by Integrating Ubiquitous e-Learning Applications," *Proceedings of the 2005 International Conference on Next Generation Web Services Practices (NWESP'05)*, Seoul, South Korea, August 28, 2005. (Contribution: 5%, Citations: 5)
21. T. N. Nguyen, E. V. Munson, J. T. Boyland, and C. Thao, "An Infrastructure for Development of Object-Oriented Configuration Management Services", in *Proceedings of the 27th ACM/IEEE International Conference on Software Engineering (ICSE 2005)*, May 15-21, 2005, St. Louis, Missouri, USA, IEEE Computer Society Press, pages 215–224, 2005. (Acceptance rate: 12%, Contribution: 15%, Citations: 62)
20. T. N. Nguyen, E. V. Munson, J. T. Boyland, and C. Thao. "Structure-oriented product versioning," in *International Conference on Information Technology: Coding and Computing, 2005*. Vol. 2, pages 455-460, April 2005. (Acceptance rate: 15%, Contribution: 15%, Citations: 0)
19. T. N. Nguyen, E. V. Munson, J. T. Boyland, and C. Thao. "Configuration management for designs of software systems," in *12th IEEE International Conference and Workshops on the Engineering of Computer-Based Systems, 2005*, pages 236-243, April 2005. (Contribution: 15%, Citations: 1)
18. T. N. Nguyen, E. V. Munson, J. T. Boyland, and C. Thao. "Flexible Fine-grained Version Control for Software Documents", in *Proceedings of the 11th IEEE Asia-Pacific Software Engineering Conference (APSEC 2004)*, November 30 – December 3, 2004, Busan, Korea, pp. 212-219, IEEE Computer Society Press, 2004. (Acceptance rate: 39%, Contribution: 15%, Citations: 5)
17. T. N. Nguyen, E. V. Munson, J. T. Boyland, and C. Thao, "Architectural Software Configuration Management in Molhado", in *Proceedings of the 20th IEEE International Conference on Software Maintenance (ICSM 2004)*, September 11-17, 2004, Chicago, Illinois, USA, pp. 296-306, IEEE Computer Society Press, 2004. (Acceptance rate: 28%, Contribution: 15%, Citations: 7)
16. T. N. Nguyen and E. V. Munson. "A formalism for conformance analysis and its applications," in *Proceedings of the Second International Conference on Software Engineering and Formal Methods (SEFM 2004)*, pages 330- 339, Sept. 2004. (Acceptance rate: 26%, Contribution: 30%, Citations: 2)
15. T. N. Nguyen, E. V. Munson, J. T. Boyland, and C. Thao, "The Molhado hypertext versioning system", in *Proceedings of the 15th ACM International Conference on Hypertext and Hypermedia (Hypertext 2004)*, August 9-13, 2004, Santa Cruz, California, USA, pp. 185-195, ACM Press, 2004. (Acceptance rate: 23%, Contribution: 20%, Citations: 24)
14. T. N. Nguyen, E. Munson, and C. Thao, "Software Traceability via Versioned Hypermedia", in *Proceedings of the 16th International Conference on Software Engineering and Knowledge Engineering (SEKE 2004)*, June 20-24, 2004, Alberta, Canada, pp. 288-295, Knowledge Systems Institute Publisher, 2004. (Acceptance rate: 33%, Contribution: 20%, Citations: 0)
13. T. N. Nguyen, E. Munson, and C. Thao, "Fine-grained, structured Configuration Management for Web projects", *Proceedings of the 13th International World Wide Web Conference (WWW 2004)*, May 17-25, 2004, New York City, New York, USA, pp. 433-443, ACM Press, 2004. (Acceptance rate: 13%, Contribution: 25%, Citations: 10)
12. S. C. Gupta, T. N. Nguyen, and E. V. Munson. "The Software Concordance: Using a Uniform Document Model to Integrate Program Analysis and Hypermedia," *Proceedings of the 10th Asia-Pacific Software Engineering Conference (APSEC 2003)*, Chiangmai, Thailand, December 10–12, 2003, pages 164–175. (Acceptance rate: 40%, Contribution: 25%, Citations: 3)

11. T. N. Nguyen and E. V. Munson. "The Software Concordance: A New Software Document Management Environment," *Proceedings of the 21st Annual International Conference on Documentation, San Francisco, USA, October 12–15, 2003*, pages 198–205. (Contribution: 30%, Citations: 28)
10. S. C. Gupta, T. Nguyen, and E. V. Munson. "Connecting Source Code and Software Documents with Hypermedia," *Proceedings of the 6th LASTED International Conference on Software Engineering and Applications (SEA 2002), Cambridge, Massachusetts, USA*, pages 181–186, November 2002. (Contribution: 20%, Citations: 3)
9. T. Nguyen, S. C. Gupta, and E. V. Munson. "Three Issues in the Use of Versioned Hypermedia for Software Development Systems," *Proceedings of SBMIDIA 2002, VIII Brazilian Symposium on Multimedia and Hypermedia Systems*, pages 3–18, October 2002. (Contribution: 25%, Citations: 2)
8. J. Dabrowski and E. V. Munson. "Absolute Thresholds for Perception for Changes in a Graphical User Interface," in *Proceedings of HCI International 2001, Volume 1, Usability Evaluation and Interface Design, New Orleans*, Lawrence Erlbaum Associates, pages 292–296, August 2001. (Contribution: 30%, Citations: 0)
7. Y. Tsymbalenko and E. V. Munson. "Using HTML Metadata to Find Relevant Images on the World Wide Web," in *Proceedings of Internet Computing 2001, Las Vegas*, pages 842–848, June 2001. (Contribution: 30%, Citations: 17)
6. E. V. Munson. "The Software Concordance: Bringing Hypermedia to the Software Development Process," in *SBMIDIA '99 Anais, V Simpósio Brasileiro de Sistemas Multimídia e Hipermídia*, pages 1–12, Goiânia, Brazil, June 1999. (Invited paper) (Contribution: 100%, Citations: 4)
5. P. M. Marden, Jr. and E. V. Munson. "PSL: an Alternate Approach to Style Sheets for the Web," *Proceedings of Webnet 98: World Conference of the WWW, Internet, & Intranet, Orlando, FL, November 1998*, AACE, 1998. (Acceptance rate: approx. 50%, Contribution: 40%, Citations: 0)
4. P. M. Marden, Jr. and E. V. Munson. "Multiple Presentations of WWW Documents Using Style Sheets," *Proceedings of ED-MEDIA: World Conference on Educational Multimedia and Hypermedia, Freiburg, GDR, June 1998*, AACE, 1998, pages 902–906. (Acceptance rate: approx. 50%, Contribution: 30%, Citations: 4)
3. T. Cumarantunge and E. V. Munson. "Memory Scalability in Constraint-based Multimedia Style Sheet Systems," *Electronic Publishing, Artistic Imaging, and Digital Typography: 7th International Conference on Electronic Publishing, EP '98, St. Malo, France, April 1998*, pages 381–391, Lecture Notes in Computer Science No. 1375, Springer-Verlag, 1998. (Acceptance rate: approx. 40%, Contribution: 30%, Citations: 0)
2. E. V. Munson. "Representing Appearance Information in a World of Interchangeable Documents". In *Proceedings of the Florida Artificial Intelligence Research Symposium*, Key West, FL, May 1996, 187–191. (Contribution: 100%, Citations: 0)
1. S. L. Graham, M. A. Harrison and E. V. Munson. "The Proteus Presentation System," *Proceedings of the Fifth ACM SIGSOFT Symposium on Software Development Environments*, pages 130–138, Tyson's Corner, VA., December 1992. (Acceptance rate: approx. 25%, Contribution: 70%, Citations: 44)

Conference Publications (Short Length)

10. M. Pandey and E. V. Munson. "Version-Aware LibreOffice Documents," in *Proceedings of the 2013 ACM Symposium on Document Engineering*, Florence, Italy, pages 57–60, September 2013.
9. C. Thao and E. V. Munson. "Version Aware XML Documents," *Proceedings of the 2011 ACM Symposium on Document Engineering*, Mountain View, USA, pages 97–100, September 2011. (Acceptance rate: 36%, Contribution: 30%)

8. J. A. Camacho-Guerrero, A. A. Carvalho, M. G. C. Pimentel, E. V. Munson, A. A. Macedo. “Clustering as an approach to support the automatic definition of semantic hyperlinks” in *Proceedings of the 18th Conference on Hypertext and Hypermedia (HT '07)*, pages 81–84, September 2007. (Acceptance rate: 35%, Contribution: 5%, Citations: 2)
7. M. G. Pimentel, L. Baldochi, E. V. Munson. “Modeling context information for capture and access applications,” *Proceedings of the 2006 ACM Symposium on Document Engineering (DocEng 2006)*, pages 92–94, Amsterdam, Netherlands, October 28–30, 2006. (Acceptance rate: 46%, Contribution: 15%, Citations: 5)
6. A. R. de Andrade and E. V. Munson and M. G. C. Pimentel. “A document-based approach to the generation of web applications,” in *DocEng '04: Proceedings of the 2004 ACM Symposium on Document Engineering*, October 2004, Milwaukee, USA, pp. 45–47, ACM Press, 2004. (Acceptance rate: 36%, Contribution: 15%, Citations: 7)
5. T. N. Nguyen, E. V. Munson, J. T. Boyland, and C. Thao, “Molhado: Object-Oriented Architectural Software Configuration Management”, *Formal Research Demonstration at the 20th IEEE International Conference on Software Maintenance (ICSM 2004)*, September 11–17, 2004, Chicago, Illinois, USA, pp. 510, IEEE Computer Society Press, 2004. (Acceptance rate: 28%, Contribution: 20%, Citations: 2)
4. T. N. Nguyen, S. C. Gupta, E. V. Munson, and J. T. Boyland. “Configuration Management in a Hypermedia-based Software Development Environment,” *Proceedings of ACM Hypertext 2003, Nottingham, UK, August 27–29, 2003*, pages 194–196. (Acceptance rate: 25%, Contribution: 20%, Citations: 1)
3. T. Nguyen, S. C. Gupta, and E. V. Munson. “Versioned Hypermedia Can Improve Software Document Management,” in *Proceedings of the Thirteenth Conference on Hypertext and Hypermedia (Hypertext '02), College Park, Maryland, USA*, pages 192–193, June 2002. (Acceptance rate: 61%, Contribution: 20%, Citations: 4)
2. J. Dabrowski and E. V. Munson. “Is 100 Milliseconds Too Fast?” in *Proceedings of ACM CHI 2001, Conference on Human Factors in Computing, Seattle, April 2001, Extended Abstracts*, pages 317–318. (Acceptance rate: approx. 30%, Contribution: 30%, Citations: 27)
1. J. Pochueva, E. V. Munson, and D. Pochuev. “Optimizing Video-on-Demand through Requestcasting,” in *Proceedings of ACM Multimedia '99*, Orlando, FL, pages 207–210, November 1999. (Acceptance rate: 21%, Contribution: 15%, Citations: 3)

Editorial Work

9. E. V. Munson (editor). Special Issue on “Interacting with multimedia: 3D navigation and media collections,” to appear in *Multimedia Tools and Applications*, Springer-Verlag, 2014.
8. D. C. A. Bulterman, P. Cesar, E. V. Munson and M. G. C. Pimentel (editors). Special Issue on “Multimedia Authoring and Annotation,” *Multimedia Tools and Applications*, 69(3), Springer-Verlag, April 2014.
7. E. V. Munson and M. G. C. Pimentel (editors). Special Issue on “Issues and contributions in interactive multimedia: photos, mobile multimedia, and interactive TV”, *Multimedia Tools and Applications*, 61(3), Springer-Verlag, December 2012.
6. E. V. Munson and M. G. C. Pimentel (editors). Special Issue on Photos, Time, Navigation, Visualization, Recommendation and Interactive TV: Issues and Contributions, *Multimedia Tools and Applications*, 50(3), Springer-Verlag, December 2010.

5. P. R. King and E. V. Munson (editors). *Digital Documents: Systems and Principles — Proceedings of DDEP 2000 and PODDP 2000*. Lecture Notes in Computer Science No. 2023, Springer-Verlag, Munich, 2003.
4. C. Vanoirbeek, C. Roisin, and E. V. Munson (editors). *Proceedings of the 2003 ACM Symposium on Document Engineering*, Grenoble, France, November 2003. ACM Press.
3. E. V. Munson (editor). *Proceedings of the ACM Symposium on Document Engineering, DocEng '01*, Atlanta, USA, November 2001. ACM Press.
2. Editor, special issue on Performance in Digital Information Systems, *Journal of Digital Information*, 1(5), January 2000.
1. E. V. Munson, C. Nicholas, and D. Wood (editors). *Principles of Digital Document Processing, 4th International Workshop, PODDP '98, Saint Malo, France, March 1998, Proceedings*. Lecture Notes in Computer Science No. 1481, Springer-Verlag, Munich, 1998.

Workshop Publications

16. A. Alsubhi and E. V. Munson. “Design and Usability Testing of a User Interface for Three-Way Document Merging,” to appear in *Proceedings of DCChanges 2016: 4th International Workshop on Document Changes: Modeling, Detection, Storage and Visualization, Vienna, Austria, September 2016*.
15. M. Pandey, E. V. Munson, and C. Thao. “Progress Report on Version-Aware LibreOffice,” in *Proceedings of DCChanges 2014: 2nd International Workshop on Document Changes: Modeling, Detection, Storage and Visualization*, Fort Collins, Colorado, September 2014.
14. R. Hardt and E. V. Munson. “Ant Build Maintenance with Formiga,” in *Proceedings of the 1st International Workshop on Release Engineering (RELENG 2013)*, San Francisco, California, May 20, 2013, pages 13-16, ACM, 2013. (Contribution: 25%)
13. C. Thao and E. V. Munson. “Flexible Support for Managing Software Product Lines,” in *Proceedings of the 2nd International Workshop on Product Line Approaches in Software Engineering (PLEASE 2011)*, Honolulu, Hawaii, May 22-23, 2011, pages 55–59, ACM, 2011. (Contribution: 30%)
12. E. V. Munson and T. N. Nguyen, “Concordance, Conformance, Versions, and Traceability”, in *Proceedings of the 3rd IEEE/ACM International Workshop on Traceability in Emerging Forms of Software Engineering (TEFSE 2005)*, a workshop associated with the 20th IEEE/ACM International Conference on Automated Software Engineering (ASE 2005), November 7–11, 2005, Long Beach, California, USA, pages 62–66, ACM Press, 2005. (Contribution: 60%, Citations: 4)
11. T. N. Nguyen, C. Thao and E. V. Munson, “On Product Versioning for Hypertexts”, in *Proceedings of the 12th ACM International Workshop on Software Configuration Management (SCM-12)*, a workshop associated with the ACM SIGSOFT Symposium on the Foundations of Software Engineering (FSE 2005), September 5–9, 2005, Lisbon, Portugal, pages 112–132, ACM Press, 2005. (Contribution: 10%, Citations: 7)
10. J. I. Maletic, E. V. Munson, A. Marcus and T. N. Nguyen. “Using a Hypertext Model for Traceability Link Conformance Analysis,” in *Proceedings of the Second International Workshop on Traceability in Emerging Forms of Software Engineering (TEFSE 2003)*, October 7, 2003, Montreal, Canada, pages 47–54 (acceptance rate: 50%). (Contribution: 20%, Citations: 30)
9. T. N. Nguyen and E. V. Munson. “A Model for Conformance Analysis of Software Documents,” in *Proceedings of the 2003 International Workshop on Principles of Software Evolution, Helsinki, September 1–2, 2003*, pages 24–35. (Acceptance rate: 40%, Contribution: 25%, Citations: 6)

8. C. Thao and E. V. Munson. "A Relevance Model for Web Image Search," *Web Document Analysis II, Proceedings of the Second International Workshop on Web Document Analysis, Edinburgh, August 3, 2003*. Pattern Recognition and Image Analysis (PRImA) Group, 2003, pages 57–60. (Contribution: 25%, Citations: 7)
7. E. V. Munson and Y. Tsymbalenko. "To Search for Images on the Web, Look at the Text, Then Look at the Images," *Proceedings of the First International Workshop on Web Document Analysis*, Seattle, September 8, 2001, pages 39–42. (Contribution: 25%, Citations: 22)
6. P. M. Marden, Jr. and E. V. Munson. "Why Current Style Sheet Standards have Failed to Improve Document Engineering," *Proceedings of the Workshop on Web Engineering, Eighth World Wide Web Conference, Toronto, May 1999*. (Acceptance rate: 53%, Contribution: 30%, Citations: 0)
5. E. V. Munson and M. Pfeiffer. "A Representation of Media for Multimedia Authoring and Browsing Systems," in *Representations for Multi-Modal Human-Computer Interaction: Papers from the 1998 Workshop*. AAAI Press, Technical Report WS-98-09, 49–54, July 1998. (Contribution: 90%, Citations: 1)
4. P. M. Marden, Jr. and E. V. Munson. "Multiple Presentations of WWW Documents Using Style Sheets," in Ebert, D. and Nicholas, C., editors. *Proceedings of the Workshop on New Paradigms in Information Visualization and Manipulation (NPIV '97)*. ACM Press, November 1997. (Acceptance rate: 63%, Contribution: 50%, Citations: 10)
3. E. V. Munson. "Integrating Constraint-Based Layout Specifications and Paginating Formatting," *LAMPE 97: Lausanne Workshop on Electronic Page Models*, Swiss Federal Institute of Technology, Lausanne, Switzerland, September 1997. (Contribution: 100%, Citations: 0)
2. E. V. Munson. "Toward an Operational Theory of Media." In C. Nicholas and D. Wood, editors. *Proceedings of PODP 96, the Third International Workshop on Principles of Document Processing*, Lecture Notes in Computer Science, No. 1293, Springer-Verlag, 1997. (Contribution: 100%, Citations: 5)
1. E. V. Munson. "Interoperability of Software Documents," *Proceedings of the Workshop on Research Issues in the Intersection Between Software Engineering and Human-Computer Interaction*, pages 153–162, Sorrento, Italy, May 1994. (Contribution: 100%, Citations: 2)

Patents

1. T. Kusik, B. S. R. Armstrong, R. T. Barrows, E. V. Munson. *Target for Motion Tracking System*. US Patent No. 8625107, Issued January 7, 2014.

Unrefereed Research Publications

6. J. Dabrowski, C. Thao, and E. V. Munson. "Image Search and Information Visualization Research at UW-Milwaukee's Multimedia Software Laboratory," in *Proceedings of the 2001 CADIP Symposium, Baltimore, Maryland, October 2001*.
5. E. Munson. "Symposium on Document Engineering," workshop report in *SIGIR Forum*, 36(1), Spring 2002.
4. Y. Tsymbalenko and E. V. Munson. "Using HTML Metadata to Retrieve Relevant Images from the World Wide Web." *Proceedings of the 2000 CADIP Symposium, Baltimore, Maryland, September 2000*. Published October 2001.
3. E. Munson. "Representations, Tools, and Services for the Complete Integration of Software Development Documents," invited short paper in *Software Engineering Notes* 25(2), March 2000, page 25.

2. V. Quint, translated from the French by E. Munson. *The languages of Grif*. INRIA Rhône-Alpes, Montbonnot, France, 1994.
1. S. Gozani, M. Gray, S. Keshav, V. Madiseti, E. Munson, M. Rosenblum, S. Schoettler, M. Sullivan, and D. Terry. *GAFFES: The Design of a Globally Distributed File System*, UC Berkeley Computer Science Division, Technical Report No. UCB/CSD 87/361, June 1987.

Conference Presentations without Proceedings

4. “A Model of Relevance for Web Image Search,” presented at the Search Engine Meeting, The Hague, Netherlands, April 19–20, 2004.
3. “Integration of Software Development Documents with the Software Concordance,” Midwest Society for Programming Languages and Systems Spring Workshop 1998, Chicago, IL, May 16, 1998.
2. Organized and moderated panel on “Getting Control of Our Media: Multimedia Scripting Languages” at ACM Multimedia ‘96: The Fourth ACM International Conference on Multimedia, Boston, MA, November 1996. Panelists included Brian Dennis (UC Berkeley), Brian Markey (Permanent Wave Productions), Guy Steele (Sun Microsystems), and John Thompson (Macromedia).
1. “A New Presentation Language for Structured Documents,” Midwest Society for Programming Languages and Systems Fall Workshop 1996, Madison, WI, October 5, 1996.

Publications submitted or under development

None.

Invited Talks

- “Collaborative Authoring Requires Change Management,” Keynote presentation at Webmedia 2013, the 19th Brazilian Symposium on Multimedia and the Web, Salvador da Bahia, Brazil. November 5–8, 2013.
- “Collaborative Authoring Requires Change Management,” Keynote presentation at DChanges 2013: First International Workshop on (Document) Changes: Modeling, Detection, Storage and Visualization, Florence, Italy. September 10, 2013.
- “Ant Build Maintenance with Formiga,” presented at the University of São Paulo – São Carlos, Brazil, July 16, 2013.
- “New Directions in Configuration Management: XML Merging and Smarter Repositories,” presented United Nations University, International Institute for Software Technology, Macau, China, February 14, 2011.
- “Three-Way XML Merging” presented at the University of São Paulo – Ribeirão Preto, Brazil, September 27, 2010.
- “Three-Way XML Merging” presented at the Federal University Itajubá, Brazil, October 1, 2010.
- “Software Configuration Management for Product Derivation in Software Product Families,” presented to the LiquidPub Project at DISI, University of Trento, Italy, June 26, 2009.
- “Software Configuration Management for Product Derivation in Software Product Families,” presented at the Federal University of Rio de Janeiro (Brazil), October 22, 2008.
- “Document Engineering’s Future and What it Means for the Web.” Keynote address at the Fifth International Conference on Web Information Systems and Technology (WEBIST 2009), Lisbon, Portugal, March 2009.

- “Human-Computer Interaction,” presented to the Science & Math Club at the University of Wisconsin-Washington County, West Bend, WI, March 7, 2007.
- “Fine-grained, structured configuration management for Web projects,” presented at the Institute for Advanced Studies (IEA), University of São Paulo, São Carlos, May 12, 2004.
- “A Relevance Model for Web Image Search,” presented at EPFL, Lausanne, Switzerland, April 22, 2004.
- “Representing, Managing and Analyzing Relationships Among Software Documents in the Software Concordance,” presented at Xerox Research Centre Europe, Grenoble (Meylan), France, October 8, 2003.
- “A Relevance Model for Web Image Search,” presented at Institute for Computation and Mathematics, University of São Paulo-São Carlos, May 28, 2003.
- “Integrating Software Configuration Management and Versioned Hypermedia in the Software Concordance Environment,” presented at Institute of Computation and Mathematics, University of São Paulo, São Carlos, May 26, 2003.
- “Issues in Distance Education,” panel discussion in distance education course at Catholic University of Rio Grande do Sul, Porto Alegre, Brazil, January 15, 2003.
- “Research in the Multimedia Software Laboratory,” presented to Brasil Telecom, Corporate Education (Distance Learning), Porto Alegre, Rio Grande do Sul, Brazil, January 13, 2003.
- “The Case for Document Engineering,” presented at SBMIDIA 2002, the 8th Brazilian Symposium on Multimedia and Hypermedia Systems, Fortaleza, Ceará, Brazil, October 7, 2002.
- “The Software Concordance Editor,” software demonstration presented at VISSOFT 2002, Workshop on Visualizing Software for Understanding and Analysis, Paris, June 27, 2002.
- “The Software Concordance Editor,” presented at the ICSE 2002 Workshop on Web Engineering, Orlando, USA, May 21, 2002.
- Seminars on “The Software Concordance: Bringing Hypermedia to Software Development Environments” and “UPLATE: User Perception of Latency,” presented at Institute for Computation and Mathematics at the University of São Paulo-São Carlos, Brazil, January 10, 2002.
- Tutorial on “Style Sheet Systems and Languages.” Presented at DDEP ’00, the International Conference on Digital Documents and Electronic Publishing, Munich, September 13-15, 2000.
- Seminar on “Using HTML Metadata to Find Relevant Images on the Web.” Presented four times:
 - UWM Computer Science Seminar, October 27, 2000.
 - Institute of Informatics, University of Fribourg, Switzerland, August 10, 2000
 - EPFL (Swiss Federal Institute of Technology), Laboratory for Theoretical Computer Science, Lausanne, Switzerland, August 11, 2000
 - SBMIDIA ’00: the annual symposium of the Brazilian Society for Multimedia and Hypermedia, Natal, Brazil, June 14–16, 2000.
- Tutorial on “Style Sheet Systems and Languages.” Presented at SBMIDIA ’00, Sixth Brazilian Symposium on Multimedia and Hypermedia Systems, Natal, Brazil, June 14–16, 2000.
- “The Software Concordance: Bringing Hypermedia to the Software Development Process” and “Style Sheets and Style Languages,” Presented at SBMIDIA ’99, Fifth Brazilian Symposium on Multimedia and Hypermedia Systems, Goiania, Brazil, June 15–17, 1999.
- “PSL: An Alternative Approach to Style Sheet Languages for the World Wide Web.” UW-Parkside Computer Club, Kenosha, WI, December 1998.

- “Beyond the Hand-crafted Multimedia Document” and “Multimedia Presentation.” Invited presentations in workshop on Multimedia Authoring at IEEE International Conference on Multimedia Systems and Computing, Austin, June 1998.
- “Integration of Software Development Documents with the Software Concordance,” Midwest Society for Programming Languages and Systems Spring Workshop 1998, Chicago, IL, May 16, 1998.
- “New Results in Multimedia Presentation Systems,” Computer Science Colloquium, University of North Carolina-Chapel Hill, April 23, 1997.
- “Software Support for Multimedia Documents,” Johnson Controls Research and Development, Milwaukee, WI, March 20, 1997.
- “New Results in Multimedia Presentation Systems,” Computer Science Seminar, UW-Milwaukee, November 8, 1996.
- “A New Tool for Managing Presentation of Multimedia Documents,” Department of Electrical Engineering and Computer Science, Northwestern University, November 20, 1995.
- “A New Tool for Managing Presentation of Multimedia Documents,” Department of Computer Science and Electrical Engineering, University of Maryland, Baltimore County, September 13, 1995.
- “Advanced Technology for Multimedia Applications on the Internet,” Frontier Technologies, Inc., June 22, 1995.
- “The Proteus Presentation System,” Marquette Electronics, Inc., November 21, 1994.
- “The Proteus Presentation System,” Sun Microsystems Laboratories, February 1993.

Extramural Funding

- “Building Recruiting and Inclusion for Diversity (BRAID) in the Computer Science Major,” Anita Borg Institute (with funding from Facebook, Google, Intel, and Microsoft). (\$25,375), December 2014 – November 2016.
- “Improving Document Lifecycle with Flexible Structured Versioning for Product Lines,” HP Labs Innovation Research Program. (\$225,590) August 2010 – July 2014.
- “Educating Tomorrow’s Engineers and Computer Scientists (E-TECS),” Joint grant with Edward Beimborn, George Hanson, Hossein Hosseini (PI) and John Reisel. NSF Division of Undergraduate Education S-STEM Program. (\$599,623) July 2008 – June 2014.
- “Fostering Opportunities for Tomorrow’s Engineers (FORTE).” Joint proposal with Edward Beimborn, George Hanson, Hossein Hosseini, and John Reisel (PI). NSF Division of Undergraduate Education, STEP Program (\$1,989,483) July 2008 – June 2015.
- “Change Traceability.” GE Healthcare Technologies (\$61,439). October 2006 – September 2007.
- “Collaborative Research: Increasing the Representation of Undergraduate Women and Minorities in Computer Science.” NSF Information Technology Workforce program (\$53,276). September 2004 – August 2008.
- “Computer Science, Engineering, and Mathematical Scholarships: Transition to Meaningful Employment Program.” Joint grant with Eric Key (Math), Karen Brucks (Math), and Chris Papadopoulos (Civil E.). NSF CSEMS Program (\$399,509), September 2002 – August 2008.
- “Tools for Evolving Java Programs and Software Documents.” Joint grant with John Boyland. Sun Microsystems Academic Equipment Grant (\$37,949 in equipment), March 1999.
- “Representations, Tools, and Techniques for the Complete Integration of Software Documents.” NSF CAREER Award, Software Engineering Program (\$205,943). April 1998 – June 2003.

- “Multimedia, Agent Languages, and Information Visualization Architectures for Data-Driven Information Processing.” Center for Architectures for Data-Driven Information Processing at the University of Maryland-Baltimore County (prime contractor for Department of Defense) (\$274,724). January 1998 – September 2002.
- “Effect of Magnitude and Variance of System Latency on User Performance and Satisfaction.” USENIX Association Student Research Award Program (\$19,716), June 1997.
- “Multimedia Software Research,” Frontier Technologies, Inc. (\$10,000), February 1996.

Extramural Proposals under review

- None at this time.

Intramural Grants

- “Platform for Structure-Based Software Configuration Management,” Bradley Catalyst Grant Program (UWM Research Foundation). (\$35,000) July 2010 – June 2011.

Graduate Student Supervision

- Supervised four PhD dissertations:
 - Tien Nhut Nguyen. *Object-Oriented Software Configuration Management*. Graduated December 2005. Now an Associate Professor in the Dept. of Electrical and Computer Engineering, Iowa State University.
 - James Dabrowski. *The Influence of Cognitive Load, Physical Load and System Response Time on User Productivity and Satisfaction with Computer Systems*. Graduated May 2010. Currently a software developer in Janesville, WI. Previously a Lecturer at UW-Rock County.
 - Cheng Thao. *A Configuration Management System for Software Product Lines*. Graduated August 2012. Currently an Assistant Professor of Computer Science at UW-Whitewater.
 - Ryan Hardt. *Ant Build Maintenance with Formiga*. Graduated May 2014. Currently an Assistant Professor at UW-Eau Claire.
- Supervised twenty six MS theses
 - Hong Liu. *Multiple Presentation Mosaic: A World Wide Web Browser with Enhanced Presentation*. Graduated May 1996. Now with Nortel, Santa Clara, CA.
 - Terry Cumararatunge. *Memory Scalability in Constraint-based Multimedia Style Sheet Systems*. Graduated December 1997. Now with Motorola, Arlington Heights, IL.
 - Yuliya Milbeck. *Guided Paths: A Tool for Authoring and Managing Ordered Hypertext on the World Wide Web*. Graduated December 1998. Now with W.H. Brady, Milwaukee, WI.
 - Julie Pochueva. *Optimizing Video-on-Demand Through Requestcasting*. Graduated May 1999. Now with Hewlett-Packard, Vancouver, WA.
 - Preeti Seshadri. *A Study of Agent Programming Languages and a Design for Resource Management in Java*. Graduated August 1999.
 - Yelena Tsymbalenko. *Using HTML Metadata to Find Relevant Images on the World Wide Web*. Graduated May 2000 (thesis filed in January 2000). Now with GE Medical Systems, Waukesha, WI.
 - Philip M. Marden, Jr. *Approaches to Style Sheet Languages for the World Wide Web: Principles, Practices, and Novel Applications*. Graduated May 2000. Now with Intel, Hillsborough, OR.
 - Santosh Kuty. *Evaluating OOHDM in Designing the Software Concordance Application*. Graduated May 2000. Continues to work with Compuware, Milwaukee, WI.

- John Vernon Skinner, Jr. *Reduced Material Ray Cast Volume Rendering*. Graduated August 2000. Continues to work with GE Medical Systems, Waukesha, WI.
- Jack S. Kaye. *UPLATE — User Perception of Latency: An Introductory Study*. Graduated August 2000. Working at Celera Systems, Milwaukee, WI.
- Michael R. Keller. *The Dynamic Hypermedia Design Model (DHDM)*. Graduated August 2000. Continues to work with Rockwell Automation, Mequon, WI.
- James R. Dabrowski. *Absolute Thresholds of Perception for Changes in a Graphical User Interface*. Graduated August 2000. Now with UW-Rock County in Janesville, WI.
- Satish Chandra Gupta. *Bringing Multimedia to Source Code: A Document Interface to Program Analysis Services*. Graduated December 2001. Now with IBM in Bangalore, India.
- Son Dinh Tran. *Instrumented Graphical User Interface Objects for Experimental Interface Designs*. Graduated May 2002. Now pursuing a Ph.D. at U. Maryland, College Park.
- Cheng Thao. *A Relevance Model for Web Images*. Graduated August 2003. Now pursuing a Ph.D. at UWM.
- Dominick Anggara. *A Testbed for Tools Supporting Document Evolution: Design and Application to the Software Concordance*. Graduated December 2004. Now with IDX Systems in Winston-Salem, North Carolina.
- Supreet Gill. *Versioning Design Rationale*. Graduated May 2006 (thesis accepted by Graduate School in January 2006). Now with a consulting company.
- Ryan Hardt. *A Search Engine for Web Images Using Document Text Stemming*. Graduated August 2007. Now pursuing a PhD at UW-Milwaukee.
- Kelly Huttlemailer. *An Intelligent Mathematics Tutoring System That Detects Missing Mastery*. Graduated May 2009. Now with Rockwell Automation.
- Dawn Mahtar. *Developer Requirements for an Integrated Tool in a Traditional Software Development Environment*. Graduated May 2010. Now with Northwestern Mutual Life.
- Angelo Sarto. *WiRE: A Visual Tool For Negotiating Early Stage Project Tradeoffs*. Graduated August 2010. Now with Baxter.
- Kyle Engibous. *XVCS : An XML Version Control System using a Relational Database*. Graduated December 2010. Now with Fiserv.
- Dustin Maass. *Data Mining Revision Controlled Document History Metadata For Automatic Classification*, December 2013. Now with Astronautics.
- Meenu Pandey. *Version Aware LibreOffice*. May 2014.
- Reed Johnson, *Version Control Integration of Build Maintenance Tools with Formiga*, May 2015.
- Arwa Alsubhi, *A High Fidelity Interface for Documents Merging Tool Using A Language Analysis Oracle*, August 2016.
- Supervised MS non-thesis projects of Ravi Arora (Spring 2005), Brad Becker (Spring 2009), Prathit Bondre (Summer 2002), David Buell (Summer 2011), Kai Chen (May 2012), Dan Eisenhut (Spring 2009), Alex Garcia (Fall 2012), Roby Jose (Fall 2003), Cynthia Kling (Summer 2013), Gen Lu (May 2008), Brandon Nielsen (May 2012), Zachary Peine (May 2012), Mohanavalli Jayakumar Raj (Spring 2005), Tristan Rice (Fall 2003), Steve Rogers (December 2004), Haitham Salawdeh (Fall 2003), Nairuti Shah (Spring 2013) Anthony Siu (Spring 2003) and David Strock (December 2005).
- Currently supervising the Ph.D. dissertation research of Ahmed Shatnawi and the M.S. thesis research of Alexandre Azevedo.

- In the past, I have supported James Dabrowski, Madankumar Gajendran, Satish Chandra Gupta, Ryan Hardt, Jack Kaye, Phil Marden, Tien Nhut Nguyen, Meenu Pandey, Cheng Thao, and Yelena Tsymbalenko.

Service and Professional Activities

National and International Professional Activities

- ACM SIGWEB
 - Past Chair and Member of Executive Committee (2011-present)
 - Chair (appointed in 2006, elected in 2007), 2006-2011
 - Attended two meetings per year of ACM SIG Governing Board
 - Reviewed and approved five conference budgets per year
 - Ran annual meetings at ACM Hypertext conference
 - Led development of new SIG Title and Mission Statement
 - Negotiated new sponsorship of the Web Science conference series
 - Initiated new Publicity Team of three volunteers
 - Oversaw SIG management that increased bank account balance from \$193K to \$532K
 - Treasurer (elected), 2005–2006
 - SIGWEB Liaison to Web Science Steering Committee (2010-2015)
 - SIGWEB Liaison to Document Engineering Steering Committee (2011-present)
- ACM Symposium on Document Engineering (DocEng):
 - Steering Committee: Chair, 2001–2007; member 2008-present
 - Treasurer or Co-Treasurer, 2005–2008
 - Conference Chair or Co-Chair, 2001–2004
 - Program Chair, 2001
 - Session Chair, 2001–2016
 - Program Committee Member, 2001–2014, 2016
- Third IEEE Working Conference on Software Visualization (2015), Session Chair.
- ACM Symposium on Applied Computing
 - Co-Chair. Multimedia and Visualization Track, 2009-2013
 - Program Committee Member, Web Technologies Track, 2009-2011
- Bureau of Labor Statistics: Provided input on employment prospects in the computing and software areas to BLS staff developing employment projections. 2008, 2010, 2015, 2016.
- Member, Advisory Committee, LiquidPub Project (EU-funded multi-institution research project), 2009-2011
- PhD Examiner, Department of Informatics, University of Oslo, February 2006 for dissertation of Håkon Wium Lie.
- International Workshop on Web Document Analysis (WDA):

- Workshop Co-Chair, 2005, Seoul, South Korea.
- Program Committee, 2001, 2003, and 2005.
- Session Chair, 2003.
- Brazilian Symposium on Multimedia Systems and the Web (WebMedia, previously SBMIDIA)
 - Multimedia Track Chair, 2012
 - International Tutorials Chair, 2007
 - Program Chair, 2004
 - Program Committee, 2000, 2002–2014, 2016.
- Latin American Web Conference (LA/Web), Program Committee, 2004–2007.
- Semantic Authoring, Annotation and Knowledge Markup Workshop (SAAKM 2007), Program Committee
- ACM Conference on Hypertext and Hypermedia (ACM Hypertext),
 - General Chair, 2012.
 - Co-Chair, Workshops and Tutorials, 2015.
 - Steering Committee, 2007–present.
 - Program Committee, 2003–2005.
- Reviewer, Fifth Workshop on Language Descriptions, Tools and Applications, Edinburgh, UK, April 3, 2005.
- Program Committee, MMM2001, Eighth International Conference on Multimedia Modeling, Amsterdam, November 2001.
- Vice-Chair, Program Committee (Languages and Standards Track), Ninth World Wide Web Conference, Amsterdam, May 1999.
- Publicity Co-Chair, Steering Committee and Program Committee, DDEP00: The International Conference on Digital Documents and Electronic Publishing, Munich, September 2000.
- Co-Editor of Proceedings, Steering Committee and Program Committee, Fifth International Workshop on Principles of Digital Document Processing, Munich, September 2000.
- ACM International Multimedia Conference and Exhibition
 - Program Committee, 1999
 - Reviewer, 1996, 1997
- Program Committee, AAAI Workshop on Representations for Multi-modal Human Computer Interaction, Madison, WI, July 1998.
- Publicity Chair, Program Committee and Chair of “Document Reuse” session, EP98, The Seventh International Conference on Electronic Publishing, Document Manipulation and Typography, Saint Malo, France, April 1998.
- Proceedings Co-Editor, Program Committee and Chair of “Accessing Collections of Documents” session, Fourth International Workshop on Principles of Digital Document Processing, Saint Malo, France, April 1998.
- Program Committee, and Session Chair for “Multimedia” session, Third International Workshop on Principles of Document Processing (Palo Alto, CA, September 1996).
- Reviewer for

- NSF Interactive Systems Program (1998)
- NSF SBIR Program (1998)
- Hong Kong Research Council (1998, 1999, 2002, 2003, 2004, 2005, 2007, 2011)
- South Carolina EPSCoR Research Initiative Grant Program (1999)
- Swiss National Science Foundation (2011)
- Wiley and Sons textbook division (2006)
- *ACM Journal of Educational Resources in Computing Education* (2001, 2002(2), 2003, 2005)
- *ACM Transactions on Information Systems* (2010)
- *ACM Transactions on the Web* (2008)
- *CACM* (2008)
- *Computer Science Research and Development* (2010)
- *Computers and the Humanities* (1998)
- *Digital Technical Journal* (1995)
- *Electronic Publishing: Origination, Dissemination, and Design* (1993)
- *Human-Computer Interaction* (2006)
- *Interacting with Computers* (2013, 2014)
- *Integrated Computer-Aided Engineering* (2010, 2013)
- *International Journal of Business Intelligence and Data Mining (IJBIDM)* (2010)
- *International Journal of Document Analysis and Recognition* (2008, 2010)
- *International Journal of Human-Computer Studies* (1996, 2012, 2013)
- *IEEE Computer* (1995)
- *IEEE Concurrency* (1999)
- *IEEE Software* (2014)
- *IEEE Transactions on Learning Technologies* (2009)
- *IEEE Transactions on Software Engineering* (2002)
- *IEEE Transactions on Systems, Man, and Cybernetics--Part A: Systems and Humans* (2010, 2014)
- *Journal of Digital Information* (1998, 2009)
- *Journal of the Brazilian Computer Society* (2012)
- *Journal of Software* (2007)
- *Journal of Universal Computer Science* (2013)
- *Multimedia Tools and Applications* (2010 (2), 2011(3), 2012 (4), 2013 (3), 2014 (3), 2015 (2))
- *Software: Practice and Experience* (1994)
- Advised Benjamin Wright (2008), Lauren Csorny (2012, 2013), and Domingo Angeles (2014, 2015) of the Bureau of Labor Statistics on computer-related employment trends
- Senior Member, ACM
- Member, Brazilian Computing Society (SBC).

University Service

- IT-related service:
 - Information Technology Policy Committee: Member, 2005-09, 2011-14, and 2015-2018; Chair 2006-08 and 2012-13
Chairship included membership of the following bodies
 - Campus Planning Steering Committee, 2007-08
 - Council on Information Technology, 2006-08
 - IT Governance liaison committee, 2007-08
 - Online Access Student Information System (OASIS) Steering Committee, 1999–2003. Chair, September 2000–03.
 - UWM Computer Policy Committee, 1996–99.
 - Search and Screen Committee for UWM CIO, 2007 and 2012.
 - UWM Strategic Planning Technology Team, 2013.
- Division of the Professions Executive Committee: Member 2012-15, Chair 2013-15
- Brazil 3000 Committee (ad hoc committee to promote recruitment of students from Brazil), 2013-14.
- Kenwood IRC Planning Committee, 2009
- GE Healthcare Center for Advanced Computational Imaging, Acting Director, 2012-present.
- Graduate School ad hoc committee on cluster hiring, 2006-07.
- Graduate Faculty Council Committee on Reviews, 2000–03; Chair 2002–03.

College Service

- Search & Screen committee for CEAS Director of Marketing, 2013.
- Search & Screen committee for CEAS Assistant Dean, 2012.
- CEAS Energy & Environment Cluster Search Committee, 2008-09.
- CEAS Curriculum Committee, 2008-10.
- CEAS Strategic Planning working group, 2005.
- Dean's Growth Plan Implementation Committee, 2002.
- Dean's ad hoc Space Committee, 2002-2003.
- CEAS Faculty Development Committee (TQM), 1995–97.
- Outreach Presentations to local high school students in cooperation with CEAS Multicultural Office (one in Fall 1996, two in Spring 1997, and two in Fall 1997).
- Information Technology committee (*ad hoc* advisory group for CEAS Associate Dean), 1998–2001.
- CEAS Representation in the Information Technology working group of the Investment in UWM process, Spring 2001.

Department Service

- Served on MS thesis defense committees of Robb Barrows (EE), Ilya Basin (IE), Pankaj Bolaki, Michael Brzeski (EE), Songsak Channarukul, Liya Chernyakova, Robert “Bart” Harrison, Ritch Houdek, Naveen Jamal, Eok Kim, Paul Klein (EE), Ravi Karonde, Douglas Knutzen, Greg Krueger, Mahesh Kumar, Byunghwan Lim, Alfredo Liu-Perez, Scott Moll, Matthew Mulvey, Hien Minh Nguyen, Phiem Nguyen, Md. Halim Sarkar, Vaidhyathan Viswanathan, Zifu Yang and Steve Yohanan.
- Served on MS comprehensive exam committees of Zahira Gonzalez, Jay Kappelusch (IE), Andrew Klein, Scott Knaffla, Nigel Longworth, and Rick Reynolds.
- Served on Ph.D. dissertation committees of Awny Alnusair, Lidia Bonilla-Quintero, Mohamed El-Bendary, William Retert, Mohammed Rooholamini, Yanlin Wen, Jim Williams, Greg Wolffe and Dongyang Wang (EE).
- Served on Ph.D. preliminary exam committees of Awny Alnusair, Buket Aydas (BiomedInf), Songsak Channarukul, James Dabrowski (chair), Mohammed El-Bendary, Husam Ghazaleh, Ryan Hardt (chair), Qiaotian Li (EE) Tien Nhut Nguyen (chair), Yogesh Patel (EE), William Retert, Cheng Thao (chair), Greg Wolffe and Dongyang Wang (EE).
- Accreditation Coordinator, 2005-2010.
- Graduate Admissions Committee, 1994–98.
- Chair, Undergraduate Curriculum Committee, 2000–2003 (Member, 1997–2000).
 - Led reorganization of introductory programming curriculum and the reorganization of the upper-division software curriculum.
 - Co-wrote two proposals for the Investment in UWM process in Spring 2001. One proposal was accepted, producing 4 open faculty positions to be hired for Fall 2002.
 - Led development of various new interdisciplinary programs, including BS in Applied Mathematics and Computer Science (approved June 2008); Certificate in Internet Technology with UWM School of Continuing Education (not approved).
- Graduate Curriculum Committee, 1999–2000.
- CS Instructional Laboratory Coordinator, 1998–2003.
 - Provided liaison with system administrators.
 - Developed three Laboratory Modernization proposals (one in 1998, two in 1999) and one 1999 Technology Fee proposal (in consultation with Associate Dean Venugopalan and CS Co-Chair Vairavan).
 - Served on Search and Screen committees for CEAS Computer Technology Director. and for CEAS system computer support staff person.
- Teaching Assistantship Application Review Committee, 1996 and 1998.
- Chair, Committee evaluating Part II of the Qualifying Exam, 1995–96.
- Undergraduate Programming Curriculum Committee, 1994–95.
- Ph.D. Qualifying Examination
 - Programming Language and Systems Coordinator, 1994–2002
 - Software Engineering Coordinator, 2004–2007
- MS Comprehensive Examination, Software Engineering question author, 1999–2001.

Honors

- ACM DocEng 2010 Best Paper Award (with Cheng Thao).
- UWM CEAS Outstanding Teaching Award, 1998.
- Outstanding Reviewer, IEEE *Computer*, 1995.
- Eugene C. and Mona Fay Gee Fellowship, 1986–87.
- NSF Graduate Fellowship Finalist, 1986–87.
- Hertz Foundation Fellowship Finalist, 1986–87.

Teaching Activities

I have taught nine courses while at UWM: Computer Programming I (CS 152), Intermediate Computer Programming (CS 251), Introduction to Software Engineering (CS 536), Object-Oriented Programming (CS 657 and CS 552), Web Languages and Standards (CS 581) Multimedia Systems (CS 780 and CS 790), Human-Computer Interaction (CS 747 and CS 790), Advanced Software Engineering (CS 790) and Document Engineering (or Digital Documents) (CS 790). In addition, in 2003 I taught Technical English and Web Languages at IUT 2 in Grenoble, France.

Student evaluations of my teaching in my UWM courses are shown in the following table. Ratings are the average of seven questions about the quality of the instructor. Each question was answered on a five-point scale ranging from 1 (poor) to 5 (excellent). (Note: For my first several years at UWM, a high-to-low, 1-to-5 scale was used. These scores have been converted to a low-to-high rating via the obvious arithmetic in order to make the scores easily comparable.)

Semester	Course Number	Course Title	Rating
Fall 1994	657	Object-Oriented Programming	4.48
Spring 1995	657	Object-Oriented Programming	4.46
Spring 1995	790	Multimedia Systems	4.61
Fall 1995	657	Object-Oriented Programming	4.56
Spring 1996	657	Object-Oriented Programming	4.57
Spring 1996	790	Multimedia Systems	4.55
Fall 1996	152	Computer Programming I	4.41
Fall 1996	552	Object-Oriented Programming	4.10
Spring 1997	152	Computer Programming I	4.35
Spring 1997	790	Multimedia Systems	4.29
Fall 1997	152	Computer Programming I	4.48
Fall 1997	552	Object-Oriented Programming	4.25
Spring 1998	152	Computer Programming I	4.11
Fall 1998	152	Computer Programming I	4.41
Fall 1998	790	Human-Computer Interaction	4.59
Spring 1999	552	Object-Oriented Programming	4.47
Fall 1999	152	Computer Programming I	3.77
Fall 1999	790	Multimedia Systems	4.47

Semester	Course Number	Course Title	Rating
Spring 2000	152	Computer Programming I	3.83
Spring 2000	790	Adv. Software Engineering	4.56
Fall 2000	536	Intro to Software Engineering	4.17
Fall 2000	552	Object-Oriented Programming	4.12
Spring 2001	790	Human-Computer Interaction	4.69
Fall 2001	780	Multimedia Systems	4.47
Fall 2001	790	Digital Documents	4.83
Spring 2002	552	Object-Oriented Programming	4.30
Fall 2002	152	Computer Programming I	4.10
Fall 2002	152	Computer Programming I	4.24
Spring 2003	152	Computer Programming I	3.96
Spring 2003	790	Digital Documents	4.19
Fall 2004	251	Intermediate Computer Prog.	4.44
Fall 2004	581	Web Languages and Standards	4.20
Spring 2005	251	Intermediate Computer Prog.	4.24
Spring 2005	780	Multimedia Systems	4.49
Fall 2005	251	Intermediate Computer Prog.	4.03
Fall 2005	581	Web Languages and Standards	4.24
Spring 2006	790	Document Engineering	4.77
Fall 2006	251	Intermediate Computer Prog.	4.10
Fall 2006	747	Human Computer Interaction	4.40
Spring 2007	581	Web Languages and Standards	4.30
Fall 2007	251	Intermediate Computer Prog.	3.97
Spring 2008	251	Intermediate Computer Prog.	4.07
Fall 2008	251	Intermediate Computer Prog.	4.20
Fall 2008	657/747	Human Computer Interaction	4.43
Spring 2009	251	Intermediate Computer Prog.	4.17
Spring 2009	581	Web Languages and Standards	4.05
Fall 2009	251	Intermediate Computer Prog.	4.09
Fall 2009	657	Human Computer Interaction	3.77
	747		4.60
Spring 2010	251	Intermediate Computer Prog.	4.21
Spring 2010	780	Multimedia Systems	4.50
Fall 2011	251	Intermediate Computer Prog.	4.37
Fall 2011	361	Intro to Software Engineering	4.06
Spring 2012	251	Intermediate Computer Prog.	4.46
Spring 2012	657/747	Human Computer Interaction	4.63/4.88
Fall 2012	251	Intermediate Computer Prog.	4.21
Fall 2013	251	Intermediate Computer Prog.	4.27
Spring 2014	657/757	Human Computer Interaction	4.63
Fall 2014	251	Intermediate Computer Prog.	4.35
Spring 2015	251	Intermediate Computer Prog.	4.28

Semester	Course Number	Course Title	Rating
Spring 2016	657/747	Human Computer Interaction	4.64/4.57