

Biographical Sketch - Judith Bayard Cushing

Professional Preparation

- The College of William and Mary, Williamsburg, VA Philosophy and Mathematics BA, June 1968
- Brown University, Providence, RI Philosophy of Science MA, June 1970
- Oregon Graduate Institute of Science and Technology (now, Oregon Health and Science University), Portland, OR Computer Science & Engineering PhD, June 1995
Modeling Scientific Applications in Object Databases

Professional Societies

- Association for Computing Machinery Northwest Consortium for Computing Sciences in Colleges (CCSC) IEEE Computer Society

Professional Experience

- 1982-present Member of the Faculty (Computer Science), The Evergreen State College, Olympia.
Feb-Jul 2001 Visiting Researcher, Institut National de Recherche en Informatique (INRIA), Rocquencourt, France
- Sep 1989-Jun 1993 Professional research leave to The Oregon Graduate Institute to complete the Ph.D.
Mar -Sep 1989 Visiting Professor (Computer Science), Kobe University of Commerce, Kobe, Japan
- 1977-1982 Computer Center Director, Systems Analyst, Programmer, Research Assistant; Public Health Automated Medical Information System (PHAMIS), then IDX, then GE. Seattle, WA
- Sep 1976-Jun 1977 Postgraduate work (biomathematics, biostatistics, medical information systems), Univ. of Texas Health Science Center (Southwestern Medical School), Dallas, TX.
- Mar-Jun 1976 Programmer-Analyst, Design Automation Dept., Texas Instruments, Dallas, TX
- 1974-1976 Systems Analyst, Office of Computer Services, Cornell University, Ithaca, NY
- 1971-1974 Systems Engineer, C. de Calcul, Faculté des Sciences, Univ. de Bordeaux, France
- 1970-1971 Programmer Analyst, Compagnie International de Télécom., Paris, France
- 1969-1970 Systems Programmer, Diagnostic Engineering, Systems Development Div., IBM.

Related Publications

- [1] Cushing, J.B., Kopytko, N., Stevenson-Molnar, N., Zeman, L., Stafford, S., Bolte, J., Bond, B. Lach, D., and McKane, R. 2009. Enabling the Dialog – Scientist<>ResourceManager<>Stakeholder: Visual Analytics as Boundary Objects, *IEEE Intelligent Systems*, Special Issue on AI, E-Government and Politics 2.0 (Hsinchun Chen, ed.), Sept-Oct. 2009 (to appear).
- [2] Cushing, J.B., Kaplan, N., Laney, C., Mallett, J., Ramsey, K., Vanderbilt, K., Zeman, L., Gao, J., Kruger, J., LeRoy, C., Milchunas, D., Muldavin, E. 2008. Integrating Ecological Data: Notes from the Grasslands ANPP Data Integration Project, Ecology Information Management Conference.
- [3] Nadkarni, N., Fiala, A., Cushing, J. 2008. A framework to categorize forest structure concepts. *Forest Ecology and Management* (10:1016).
- [4] McIntosh, A., Cushing, J., Nadkarni, N., Zeman, L. 2007. Database design for ecologists: Composing core entities with observations. *Ecological Informatics*. Elsevier.
- [5] Cushing, J., Nadkarni, N., Finch, M., Fiala, A., Murphy-Hill, E., Delcambre, L., Maier, D. 2007. Component-based end-user database design for ecologists. *Journal of Intelligent Information Systems*.

Other Significant Publications or Presentations

- [1] Cushing, J.B., Weiss, R., Moritani, Y. 2007. CS0++ Broadening Computer Science at the entry level: Interdisciplinary science and computer science (quantitative ecology). Consortium for Computing Sciences in Colleges. Presented at Northwest Annual Conference and published in CCSC Journal.
- [2] Cushing, J. B. (session organizer, reviewer, presenter), McIntosh, A., Nadkarni, N., Zeman, L. 2007. Semantics for Integrating Forest Structure Data. 1st PLOS Ecoinformatics Session, ISMB/ECCB. Vienna, Austria.
- [3] Cushing, J., Schnase, J. and Smith, J. (eds). 2008. Special Issue on Ecosystem Informatics, *Journal of Intelligent Information Systems*.
- [4] Cushing, J. B., Vanderbilt, K (organizers), Amarnath, G, Jones, M, McCartney, P. 2005. Panel: NSF Long Term Ecological Research Sites – Praxis et Theoria, Scientific and Statistical Database Conference (SSDBM), Santa Barbara, CA.
- [5] Cushing, J. (2003) Metadata and Semantics: A Computational Challenge for Molecular Biology. [OMICS 7](#)(1): 23-24.

Synergistic Activities

- Co-PI with Eric Roberts of Stanford, NSF ICER/CPATH 2006 Regional Workshop: Integrative computing education and research <http://www.evergreen.edu/icer>.
- **IEEE *Computers in Science and Engineering***. Editorial Board. 2007-present.
- **NSF Biodiversity and Ecosystem Informatics Workshops**. 2004 and 2003 (Chair); 2001 (Organizing Committee). <http://www.evergreen.edu/bdei>
- **Digital Government Society and Conference**. 2008-2009 Member of the Board. DG.O Conference: 2007 Chair. 2006 and 2005 (Program Committee Co-Chair), 2004 Reviewer and Birds of Feather Session: Ecosystem Informatics. Panel organizer: 2007 Keynote: Global Climate Change Implications for Digital Government Research (Bachelet, D., Eckman, B., Hooper, R., van Puijenbroek, P., Worrest, R.) 2005: Eco-informatics and natural resource management.
- **Scientific and Statistical Database Management (SSDBM)**. **2011: Program Co-chair. 2004: Panel Member: Data Management over the GRID: Heaven or Hell? (Moderator: Y. Ioannidis)** 16th International Conference on Scientific and Statistical Database Management, Santorini, Greece.

Collaborators and Co-Editors: Barbara Bond, Denise Lach, John Bolte: Oregon State Univ.; Fred Martin, E. Keeley: WA State Dept. of Natural Resources; Lois Delcambre, David Maier: Portland State Univ.; Roman Dial, Alaska Pacific Univ.; Deb Peters, Christine Laney, Ken Ramsey, New Mexico State Univ.; Nicole Kaplan, Colorado State Univ.; Anne Fiala McIntosh, Univ. Alberta, Canada; Yoshiya Moritani, Kobe Univ. of Commerce, Japan; Juli Mallett, Nalini Nadkarni, Richard Weiss, Lee Zeman, The Evergreen State College; Robert Van Pelt, University of Washington; Kristin Vanderbilt, Univ. New Mexico.

Ph.D. Advisor: David Maier, currently at Portland State University.