

Steven A. Wolfman

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EDUCATION

University of Washington ■ Seattle, WA ■ Spring 2004 (Expected)

Ph.D. in Computer Science & Engineering

Dissertation: "Understanding and Promoting Interaction in the Classroom through Computer Mediated Communication"

Advisor: Professor Richard J. Anderson

My dissertation research is to study and promote classroom interaction through computer-mediated communication. My research method is the design experiment, a cyclical process of classroom observation to understand challenges; design of interventions; and study of those interventions in real classrooms, leading to a new cycle. In particular, I describe the design and study of the Classroom Presenter system for Tablet PC-based presentation, the Classroom Feedback System for student feedback in the context of lecture slides, and the Structured Interaction Presentation system for unified design of interactive and static presentation material.

University of Washington ■ Seattle, WA ■ 1999

M.S. in Computer Science & Engineering

Thesis: "The LPSAT Engine & Its Application to Resource Planning"

Advisor: Professor Daniel S. Weld

Coursework: AI, Algorithms, Architecture, Automata, Compilers, Data Mining, Graphics, Image Recognition, Machine Learning, Programming Languages, and VLSI.

Duke University ■ Durham, NC ■ 1997

B.S.E., Magna cum Laude, in Electrical Engineering with 2nd major in Computer Science

HONORS AND AWARDS

- University of Washington Excellence in Teaching Award, 2002
(Awarded annually by the President of the UW to two graduate TAs.)
- College of Engineering Teaching Assistant Recognition Award, 2002
(Awarded annually by a committee of Engineering faculty to one TA.)
- Intel PhD Fellowship, 2001–2002
- UW Undergraduate ACM Teaching Award, 2000
- National Science Foundation Fellowship, 1997–2000
- Achievement Rewards for College Scientists Fellowship, 1997–2000
- Phi Beta Kappa, 1998

TEACHING EXPERIENCE

Co-Instructor, CSE142 Introduction to Programming ■ UW, Seattle, WA ■ 2001

Taught a class section of over 200 students (one of two sections). Shared all other course duties including managing 19 TAs and other staff. Representative materials and reviews available upon request. Overall student rating: 4.54/5.0 (weighted rating: 4.94). URL:
<http://www.cs.washington.edu/education/courses/cse142/01sp/>

Instructor, CSE326 Data Structures and Algorithms ■ UW, Seattle, WA ■ 2000

Taught a class of 55 students. Designed syllabus, delivered lectures, managed staff (two TAs), and performed all other duties of instruction. Representative materials and reviews available upon request. Overall student rating: 4.94/5.0 (weighted rating: 5.15). URL:
<http://www.cs.washington.edu/education/courses/cse326/00wi/>

Teaching Assistant, Artificial Intelligence ■ UW, Seattle, WA ■ 1998 & 1999

Instructors: Professors Steve Hanks and Alon Levy

Assisted students, graded, managed web site, and guest lectured.

Undergraduate Teaching Assistant ■ Duke, Durham, NC ■ 1994–1996

Supervisors: Professors Owen Astrachan and Susan Rodger

RESEARCH EXPERIENCE

Research Assistant, Educational Technology ■ UW, Seattle, WA ■ 2001–current

Advisor: Professor Richard J. Anderson

Investigated technology in the classroom, particularly technology to promote classroom interaction (working with the Presenter system). Supervised undergraduate research assistants.

Intern, Learning Sciences & Tech. ■ Microsoft Research, Redmond, WA ■ 2002

Supervisor: Professor Richard J. Anderson (on sabbatical leave)

Adapted Presenter to the Tablet PC and designed interactive exercise system for Presenter.

Intern, Tutoring Systems ■ Mitsubishi Electric Research Labs, Boston, MA ■ 2001

Supervisor: Neal Lesh

Performed user studies and development on the Collagen system's tutoring agent.

Research Assistant, Intelligent User Interfaces ■ UW, Seattle, WA ■ 2000–2001

Advisors: Professors Daniel S. Weld and Pedro Domingos

Used mixed-initiative learning to enhance the SMARTedit system's interaction with users. Supervised undergraduate research assistants.

Research Assistant, Artificial Intelligence Planning ■ UW, Seattle, WA ■ 1998–2000

Advisor: Professor Daniel S. Weld

Created the LPSAT metric planning system and surveyed planning domain knowledge research.

Undergraduate Research Assistant ■ Duke, Durham, NC ■ 1994–1997

Supervisors: Professors Owen Astrachan, Alan Biermann, and Susan Rodger

Intern, Exchange MAPI Test Group ■ Microsoft, Redmond, WA ■ 1996

Supervisor: Randy Steadman

SERVICE

- Plenary panelist and facilitator, UW TA Orientation, 2003
- Volunteer Tutor, UW CS&E Minorities and Women Tutoring Program, 2001–2003
- Exhibitor, UW College of Engineering Open House, 2000 & 2002 & 2003
- Volunteer, Seattle Animal Shelter (dog walking, dog & handler training), 1999-2003
- Panelist, UW College of Engineering TA Orientation, 2002
- Member, UW CS&E PhD Admissions Committee, 2002
- Co-author, UW CS&E Graduate Student Skit, 2000 & 2001
- Chair, UW CS&E Prospective Graduate Student Committee, 2001
- TGIF Coordinator, UW CS&E, 1998–2000
- Chair, UW CS&E New Graduate Student Orientation Committee, 1999
- Coordinator, UW CS&E Graduate Student Seminar Series, 1998–1999
- Member, UW CS&E New Graduate Student Orientation Committee, 1998

PUBLICATIONS AND PRESENTATIONS

Note: Most publications are available from <http://www.cs.washington.edu/homes/wolf/work/>.

Peer-Reviewed Publications:

- **A Study of Digital Ink in Lecture Presentation** (to appear)
Richard J. Anderson, Ruth Anderson, Crystal Hoyer, Steven A. Wolfman. Long Paper, CHI'04: Human Factors in Computing Systems. Vienna, Austria. April 2004. (16% acceptance rate)
- **Experiences with a Tablet PC Based Lecture Presentation System in Computer Science Courses** (to appear)
Richard Anderson, Ruth Anderson, Beth Simon, Steven A. Wolfman, Tammy VanDeGrift, and Ken Yasuhara. To appear in SIGCSE'04: Technical Symposium on Computer Science Education. Norfolk, USA. March 2004. (28% acceptance rate)
- **Promoting Interaction in Large Classes with Computer-Mediated Feedback***
Richard J. Anderson, Ruth Anderson, Tammy VanDeGrift, Steven A. Wolfman, and Ken Yasuhara. Short Paper, CSCL'03: Computer Support for Collaborative Learning, pp. 119–123. Bergen, Norway. June 2003. (30% acceptance rate with 25% as long papers and 5% as short papers)
- **Interaction Patterns with a Classroom Feedback System: Making Time for Feedback***
Richard J. Anderson, Ruth Anderson, Tammy VanDeGrift, Steven A. Wolfman, and Ken Yasuhara. Interactive Poster, CHI'03: Human Factors in Computing Systems. Ft. Lauderdale, USA. April 2003. (38% acceptance rate among interactive posters)

- **Programming by Demonstration using Version Space Algebra**
Tessa Lau, Steven A. Wolfman, Pedro Domingos, and Daniel S. Weld. *Machine Learning*, Vol. 53(1–2): 111–156, 2003.
- **Making Lemonade: Exploring the Bright Side of Large Lecture Courses***
Steven A. Wolfman. SIGCSE'02: Technical Symposium on Computer Science Education, pp. 257–261. Cincinnati, USA. February 2002. (31% acceptance rate)
- **Mixed Initiative Interfaces for Learning Tasks: SMARTedit Talks Back***
Steven A. Wolfman, Tessa Lau, Pedro Domingos, and Daniel S. Weld. IUI'01: Intelligent User Interfaces, pp. 167–174. Santa Fe, USA. January 2001. (32% acceptance rate)
- **Combining Linear Programming and Satisfiability Solving for Resource Planning**
Steven A. Wolfman and Daniel S. Weld. *The Knowledge Engineering Review*, Vol. 16(1):85–99, 2001.
- **The LPSAT Engine & Its Application to Resource Planning***
Steven A. Wolfman and Daniel S. Weld. IJCAI'99: International Joint Conference on Artificial Intelligence, pp. 310–316. Stockholm, Sweden. August 1999. (26% acceptance rate)

* Publications that I presented at conferences are starred.

Other Publications:

- **Automatically Personalizing User Interfaces** (invited paper)
Daniel S. Weld, Corin Anderson, Pedro Domingos, Oren Etzioni, Krzysztof Gajos, Tessa Lau, and Steve Wolfman. IJCAI'03: International Joint Conference on Artificial Intelligence. Acapulco, Mexico. August 2003.
- **Classroom Presentation from the Tablet PC** (invited poster)
Richard J. Anderson, Ruth Anderson, Tammy VanDeGrift, Steven A. Wolfman, and Ken Yasuhara. ITiCSE'03: Innovation and Technology in Computer Science Education. Thessaloniki, Greece. June–July 2003.
- **Lecture Presentation from the Tablet PC** (workshop paper)
Richard Anderson, Ruth Anderson, Crystal Hoyer, Beth Simon, Fred Videon, and Steve Wolfman. WACE'03: Workshop on Advanced Collaborative Environments. Seattle, USA. June 2003.
- **Activating Computer Architecture with Classroom Presenter** (workshop paper)
Beth Simon, Richard Anderson, and Steve Wolfman. WCAE'03: Workshop on Computer Architecture Education. San Diego, USA. June 2003.
- **Learning Repetitive Text-editing Procedures with SMARTedit** (invited chapter)
Tessa Lau, Steven A. Wolfman, Pedro Domingos, and Daniel S. Weld. In Lieberman, ed., Your Wish is My Command: Giving Users the Power to Instruct their Software, Morgan Kaufmann, 2001.

Other Presentations:

- **Kinesthetic Learning in the Classroom** (peer-reviewed special session, to appear)
With Andrew Begel and Daniel D. Garcia. To appear in SIGCSE'04: Technical Symposium on Computer Science Education. Norfolk, USA. March 2004.
- **Classroom Presenter: A Tablet PC Based Presentation System** (invited talk)
With Richard Anderson and Crystal Hoyer: UW Web of Educators colloquium series. Seattle, USA. October 2003.
- **The Learning Experience Project — Using Tablet PCs and Conferencing to Change the Classroom** (invited talk and demonstration)
With Jay Beavers and Loring Holden. Microsoft Research Faculty Summit Plenary Session. Redmond, USA. July 2003.
- **Structured Interaction Presentation System** (invited talk)
University of California at San Diego, CSE Teaching Methods seminar. La Jolla, USA. November 2002.
- **Interaction/Use of Small Groups in Large Classes** (invited panelist)
With Ann Baker on panel: "Interacting with Students in Large Classes." UW Center for Instructional Development and Research, Quarterly Forum. Seattle, USA. October 2002.
- **Motivating Active and Group Learning** (invited panelist)
With Laurie Murphy, Kenneth Blaha, Tammy VanDeGrift, and Carol Zander on panel: "Active and Cooperative Learning Techniques for the Computer Science Classroom." CCSC-NW'02: Consortium for Computing Sciences in Colleges, Northwest Region. Seattle, USA. October 2002. (Notes published in *Journal of Computing Sciences in Colleges* 18(2):92–94, December 2002.)
- **A Real-Time, Unobtrusive, and Contextual Feedback System for the Classroom** (peer-reviewed doctoral consortium)
Presentation as a member of the Doctoral Consortium of SIGCSE'02: Technical Symposium on Computer Science Education. Cincinnati, USA. February 2002

PERSONAL INFORMATION

I am a dual citizen of Canada and the United States.

I am interested in cycling (STP'99 & '02 finisher), hiking, strategy board game play and design, racquetball, animals, and cutting jigsaw puzzles on my scroll saw. I have studied French, Spanish, Russian, Swedish, Latin, and a bit of Hebrew, Norwegian, and Esperanto without acquiring any particular fluency. (I'm much better at English, C#, Java, C++, Python, and the like.)