Melanie J. Martin

Department of Computer Science
California State University, Stanislaus
801 West Monte Vista Avenue
Turlock, CA 95382

Phone: (209) 667.3787
Fax: (209) 667.3848
Cell: (209) 620.9318
Email: mmartin@cs.csustan.edu
URL: http://www.cs.csustan.edu/~mmartin

RESEARCH INTERESTS

Artificial Intelligence
Information Retrieval
Data Mining
Health Informatics
Machine Learning
Computational Linguistics/Natural Language Processing

EDUCATION

Degrees

Ph.D.	Computer Science	New Mexico State University	August 2005
M.A.	Mathematics	University of Oregon	December 1993
B.S	Mathematics	University of Texas at Austin	December 1990

Educational Experience

New Mexico State University, Las Cruces, NM   8/94—8/05
Ph.D. Student (Computer Science), 1/98 to 8/05
    Advisor: Roger T. Hartley
    Dissertation Title:
    Reliability and Verification of Natural Language Text on the World Wide Web
Ph.D. Student (Mathematics), 8/94 to 12/97
    Advisor: Susan M. Hermiller

University of Oregon, Eugene, OR   9/91--6/94
M.A. (Mathematics), December 1993

University of Texas at Austin, Austin, TX   1/89--12/90
B.S. (Mathematics), December 1990
    Advisor: Karen K. Uhlenbeck
    Senior Thesis:
    Two and Three Manifold Topology: Advanced Mathematics from an Elementary Standpoint

Austin Community College, Austin, TX   8/88--12/88
Mathematics

California State University, Hayward, Hayward, CA   6/85--3/88
Art and Mathematics

University of California, Berkeley, Extension, Berkeley, CA   2/84--12/84
Financial Planning

California State University, Chico, Chico, CA   8/77--5/78
Latin American Studies   1/75--5/75
    Advisor: Beverly Chinas
    In 1978, designed and worked on a research project in Anthropology:
    Indigena vs. Ladina and Religious Differences between Woman in Cunen, Quiche, Guatemala

University of California, Berkeley, Berkeley, CA   6/75--8/75
Art History

Butte College, Oroville, CA   1/75--6/75

ACADEMIC WORK EXPERIENCE

California State University, Stanislaus   9/05--present
    Visiting Lecturer in Computer Science and Mathematics

Computing Research Laboratory, **New Mexico State University**   1/02—present
    Subcontractor (8/05 to present)
    Programmer (8/04 to 8/05)
    Research Assistant (1/02--8/04)

Dept. of Computer Science, New Mexico State University   1/98—12/03
    Undergraduate Pathways Coordinator (1/03--12/03)
    Teaching Assistant (8/98--12/01, 8/02--12/02)
    Research Assistant (1/99--5/00)

Dept. of Mathematics, **New Mexico State University**   8/94--5/97
    Teaching Assistant (8/94--5/97)

Dept. of Mathematics, University of Oregon   9/91--6/94
    Graduate Teaching Fellow (9/91--6/94)

Dept. of Mathematics, University of Texas at Austin   9/89--12/90
    Geometry Grader (9/89--12/90)

MEMBERSHIP IN PROFESSIONAL SOCIETIES

Association for Computational Linguistics (ACL)
American Association for Artificial Intelligence (AAAI)
Association for Computing Machinery (ACM)
Association for Women in Computing (AWC)

Association for Women in Mathematics (AWM)
    Member, Spring 1992 through 1998

AWARDS AND HONORS

NSF Advance Travel Grant to attend Forward to Professorship Workshop in Washington, D.C., May 2005.

ACM SIGIR Travel Grant to attend Doctoral Consortium in Sheffield England, July 2004.

Recognized for service to the NMSU Graduate Student Council at the Graduate Research and Arts Symposium Banquet, April 2004.

Appointed to President's Commission on the Status of Women at NMSU, October 2003.

Acting Director, NMSU Women's Studies Program, October-November 2002.

Social Justice Scholarship. Recipient of a NMSU Department of Government Social Justice Scholarship for work in health service, LGBT rights, women's issues and documenting harassment, February 2002.

GAANN Fellow. Awarded GAANN Fellowship by NMSU Department of Computer Science, January 1998 through December 2001.

Keeper of the Flame Award. Recipient of Keeper of the Flame Award from Coalition for Equality in New Mexico, September 1998.

State of New Mexico Commission on Higher Education Graduate Fellowship. September 1994 through May 1997.

Institute for Advanced Study (IAS) - Park City Summer School. Selected as a participant and awarded a scholarship to participate in summer school on Four-Manifold Topology and Geometry and the **Women's Program** at IAS in Princeton in 1994.

Scholarship from the University of Texas at Austin, based on academic achievement, 1989-1990 academic year.

Dean's List for 1985-1986 academic year, California State University, Hayward.

Lithograph ``Reflections'' in 1986 juried student art show, CSU Hayward.

Scored in top 20, nationwide, on 1983 Special Enrollment Examination given by the Internal Revenue Service.

PUBLICATIONS

Journal Articles

Janyce Wiebe, Theresa Wilson, Rebecca Bruce, Matthew Bell, and **Melanie Martin** (2004). Learning subjective language. *Computational Linguistics 30 (3),* September 2004, pp. 277-308.

Refereed Conference and Workshop Papers

Nemecio R. Chavez, Jr., **Melanie J. Martin** and Enrico Pontelli (2005). Pathways: A Student-Centered Approach to Educational to Educational Success. *The Sun Conference on Teaching and Learning. Cooperative, Collaborative, and Team-Based Learning*. March 4&5, 2005, The University of Texas, El Paso.

Melanie J. Martin (2004). Reliability and Verification of Natural Language Text on the World Wide Web. Paper at *ACM-SIGIR Doctoral Consortium*, July 25, 2004, Sheffield, England.

Melanie J. Martin and Peter W. Foltz (2004). Automated Team Discourse Annotation and Performance Prediction using LSA. *Proceedings of the Human Language Technology and North American Association for Computational Linguistics Conference (HLT/NAACL)*, May 2-7, 2004, Boston, Massachusetts. Short Paper.

Melanie J. Martin (2004). A Holistic Approach to Improving Undergraduate Performance in Gateway Computer Science Courses. *The Sun Conference on Teaching and Learning. Cooperative, Collaborative, and Team-Based Learning.* March 5-6, 2004, The University of Texas, El Paso.

Melanie J. Martin and Enrico Pontelli (2004). A holistic approach to improving undergraduate performance in gateway computer science courses using discrete mathematics as a case study. *Science, Engineering, & Technology Education Conference (SETE) 2004* at NMSU, January 9, 2004.

Jamie C. Gorman, Nancy J. Cooke, Peter W. Foltz, Preston A. Kiekel, and **Melanie J. Martin** (2003) Evaluation of Latent Semantic Analysis-Based Measures of Team Communications Content. *Proceedings of the Human Factors and Ergonomic Society 47th Annual Meeting*, HFES 2003.

Preston A. Kiekel, Nancy J. Cooke, Peter W. Foltz , Jamie C. Gorman, and **Melanie J. Martin** (2002). Some Promising Results of Communication-Based Automatic Measures of Team Cognition. *Proceedings of the Human Factors and Ergonomic Society 46th Annual Meeting*, 298-302. Baltimore, MD, September 30-October 4, 2002.

Janyce Wiebe, Rebecca Bruce, Matthew Bell, **Melanie Martin** and Theresa Wilson. (2001). A Corpus Study of Evaluative and Speculative Language. *2nd SIGdial Workshop on Discourse and Dialogue*, Aalborg, Denmark, September 1-2, 2001.

Other

Janyce Wiebe, Theresa Wilson, Rebecca Bruce, Matthew Bell, and **Melanie Martin**. (2002). Learning subjective language. (Extended version of a journal article.) Department of Computer Science Technical Report TR-02-100. University of Pittsburgh, Pittsburgh, PA.

Melanie J. Martin, Nemecio Chavez Jr. (2002). Computer Science Teaching Assistant Handbook. Presented at NMSU CS Department TA Meeting August, 21, 2002. Published at http://www.cs.nmsu.edu/~gradrep/

Susan Hermiller, **Melanie Martin**, and Eric York (1995). Learning Calculus.
Written for NMSU calculus students, currently available several places on the web, including:
http://www.cs.nmsu.edu/~mmartin/pubd/calc1.html

Posters

Melanie J. Martin, Peter W. Foltz (2003). Automatic Modeling of Team Discourse with Latent Semantic Analysis. *NM-AGEP Third Annual Conference*: New Mexico Tech, Socorro, NM, September 11-13, 2003.

Melanie J. Martin, Peter W. Foltz (2003). Team Discourse Modeling and Performance Prediction with Latent Semantic Analysis. *NMSU Graduate Research and Arts Symposium*, April 15, 2003.

Peter W. Foltz, **Melanie J. Martin** (2003). Automated Techniques for Measuring Team Communication. *ARL CMC Meeting*, February 2003.

Peter Foltz, **Melanie Martin** (2002). Automated Techniques for Measuring Team Cognition. *ARL CMC Meeting*, Virginia, September 26, 2002.

Melanie J. Martin (2002). Artificial Intelligence Seminar: 2001-2002 Schedule. For *NSF Minority Institution Infrastructure Grant Site Visit to NMSU CS Departmen*t, June 6, 2002.

Melanie J. Martin (2002). Annotating Flames in Usenet Newsgroups: A Corpus Study. For *NSF Minority Institution Infrastructure Grant Site Visit to NMSU CS Department*, June 6, 2002.

PRESENTATIONS

Computer Science

Is What You're Reading True? (2005). Invited talk at annual meeting of the Rio Grande Chapter of the Special Libraries Association, May 13, 2005. Invited talk (technical version) at Los Alamos National Laboratory, April 25, 2005.

LSA: From Information Retrieval to Team Performance (2005). TAMUCC Computer Science Department, April 28, 2005. CSU Stanislaus Computer Science Department, February 24, 2005.

Report on Grace Hopper Conference (2004). NMSU CS Department Seminar, October 20, 2004.

Discussion: Language Understanding: Recognition or Construction (2003). NMSU CS Department AI Seminar, February 24, 2003 with Nemecio Chavez.

Introduction to Latent Semantic Analysis (2002). NMSU CS Department AI Seminar, October 14, 2002.

Identifying Ideological Point of View (2001). NMSU CS Department AI Seminar, two talks: August 29 and September 5, 2001.

Groups and Automata (1996). Invited talk: Mathematics Department Colloquium at Sul Ross State University, Alpine, Texas. February 16, 1996.

Mathematics

Computers (1996). NMSU Mathematics Graduate Student Seminar with John Pierce, February 12, 1996

Matroids (1995). NMSU Mathematics Friday Afternoon Seminar, June 30, 1995 and July 7, 1995.

Classification of Closed Two-Manifolds (1995). NMSU Mathematics Graduate Student Seminar, March 27, 1995.

Not Knot (1994-1995). NMSU Mathematics Graduate Student Seminar, January 23, 1995. NMSU Mathematics Topology Seminar, December 7, 1994.

Knot Colorings (1994). Invited talk: Mathematics Department Colloquium at Sul Ross State University, Alpine, Texas. September 29, 1994.

Knot Crystals (1994). NMSU Mathematics Topology Seminar, November 2, 9, and 16, 1994.

Coloring Knots (1994). NMSU Mathematics Topology Seminar, October 26, 1994.

State Sum Invariants of Three-Manifolds and the Quantum 6J-Symbols (1993). Three talks in the University of Oregon Topology/Geometry Seminar, Spring 1993.

Knot Coloring (1992). University of Oregon Topology/Geometry Seminar, Spring 1992.

Applying Group Theory to Groups of People (1991). Lecture to Honors Mathematics Course, Fall 1991.

Other

Everything you wanted to know but were afraid to ask, panel at NMSU Graduate School Professional Development Workshop 2004, moderated by Dr. Elba Serrano, August 18, 2004.

Panel of Graduate Studies in Mathematics (1993). Symposium on Graduate Study for Undergraduate Women, Oregon State University, April 16, 1993.

Health Care in Rural Guatemala: A Personal Perspective (1979). Pacific Coast Council on Latin American Studies, October 1979.

TEACHING

PROGRAM COORDINATION

NMSU CS Undergraduate Pathways Program
        Goals: Under-represented minority recruitment and retention,
                emphasis on Native Americans and Hispanics
                Provide support, challenge and opportunity for all undergraduate CS majors
        Program: I Designed, implemented and coordinated:
                Student-centered support and challenge in gateway courses through
                        Focus groups
                        Peer mentoring
                        Web-based support
                        Training TAs
                Teaching teams for each gateway course
                Student tracking database
                Networking with other NMSU student service and support organizations
                Social events to build cohesion

COURSES TAUGHT

California State University, Stanislaus
Statistics, Finite Mathematics, Introduction to Programming II, File Structures

New Mexico State University
C Programming, Calculus I, Calculus II
Calculus for Engineering Technology

University of Oregon
College Algebra, Math Symmetry
University Math 1, University Math 2

TA FOR COURSES

New Mexico State University
Introduction to Data Structures
Automata, Languages, Computability (Graduate Course)
Computer Literacy

LANGUAGE FLUENCY

Native English speaker
Fluent in Spanish
Good reading skills in French

PROGRAMMING LANGUAGES
C, C++, Perl, Python
Some Prolog, Java, ML, Fortran

SERVICE

New Mexico State University

Departmental

Organized a group of 5 students and 3 faculty members from the NMSU Computer Science Department to attend the Grace Hopper Celebration of Women in Computing in Chicago, October 6-9, 2004.

Computer Science Graduate Student Organization
     President, Fall 1998 through Summer 1999 and Summer 2002 through Summer 2003
     Treasurer, Fall 1999 through Spring 2002 and Fall 2003 through Spring 2004

NMSU CS AI Seminar, founder and organizer, Fall 2001 through Spring 2003.

Organized student participation in NSF Site Visit for Minority Institution Infrastructure Grant (received). Included a student meeting with site visitors and a poster session with 22 research posters. June 2002.

NMSU Mathematics Friday Afternoon Seminar, founder and organizer, June 1995 though May 1996.

NMSU Mathematics Department Graduate Student Liaison
     Fall 1994 through Spring 1996

University

President's Commission on the Status of Women
     Member January 2004 to August 2005
     Member of Subcommittee on Monitoring Trends and Policies
     Attended National NSF-ADVANCE conference in April 2004

Selection Committee for NMSU Government Department Social Justice Award
     Member April 2004, April 2005

NMSU Women's Studies Steering Committee
     Acting Director, October-November 2002
     Member, November 2001 through July 2003

Gay and Lesbian Faculty and Staff at NMSU
     Member, Fall 1994 to August 2005
     Co-Facilitator, Spring 1996 through Spring 1998

Student Health Center Advisory Committee
     Graduate Student Representative, April 2001 through May 2004

Corbett Center Student Union Advisory Board
     Graduate Student Representative, November 1999 through May 2001

NMSU Differential Tuition Committee
     Graduate Student Representative, October 2000

ASNMSU Elections Board
     Graduate Student Representative, Fall 1998 through Spring 2000

Student Organizations

Associated Students of NMSU (ASNMSU) Graduate Student Council
        Webmaster and listserv manager, Fall 2001 through October 2003
        Vice-President and Treasurer, Fall 1998 through Spring 2000
        Judge for Graduate Research and Arts Symposium 2001, 2003
        Organizing Committee for Graduate Research and Arts Symposium 2002, 2003

University of Oregon

Served on Graduate Affairs Committee, University of Oregon Mathematics Department, for 1992 calendar year.

Course Coordinator, University Math 2, Spring 1994

Served on the committee to design and implement University Math courses, which were taught for the first time in Fall 1992. These courses constitute a year-long sequence in Mathematics, primarily for students in the Humanities and Social Sciences. The committee met during the Spring and Summer, 1992.

University of Texas at Austin

Department of Mathematics, Undergraduate Curriculum Committee.
        Member, Fall 1990.

Department of Mathematics, Undergraduate Program Review Committee,
        Member, Fall 1990.

College of Natural Sciences, Undergraduate Program Review Committee,
        Member, Fall 1990.

Pi Mu Epsilon, Mathematics Honor Society
        President, Summer and Fall 1990
        Vice-President, Spring 1990

REFERENCES

Dr. Roger T. Hartley
Advisor
Department of Computer Science
MSC CS
New Mexico State University
P.O. Box 30001
Las Cruces, New Mexico 88003-8001
(505) 646-1218
rth@cs.nmsu.edu

Dr. Peter Foltz
Computing Research Laboratory and
Department of Psychology
MSC 3452
New Mexico State University
P.O. Box 30001
Las Cruces, New Mexico 88003-8001
(505) 646-1980
pfoltz@crl.nmsu.edu

Dr. Enrico Pontelli
Department of Computer Science
MSC CS
New Mexico State University
P.O. Box 30001
Las Cruces, New Mexico 88003-8001
(505) 646-6239
epontell@cs.nmsu.edu

Dr. Stephen Helmreich
Computing Research Laboratory
MSC 3CRL
New Mexico State University
P.O. Box 30001
Las Cruces, NM 88003-8001
505-646-2141
shelmrei@crl.nmsu.edu

Dr. Lisa Frehill
Program Director
NSF ADVANCE Program at UC Irvine
University of California, Irvine
515 Administration Building
Irvine, CA 92697-1000-25
(949) 824-2798
lfrehill@uci.edu

Dr. Tom Carter
Department Chair, Department of Computer
Science
California State University, Stanislaus
801 West Monte Vista Avenue
Turlock, CA 95382
(209) 667-3175
tom@cs.csustan.edu