

# Deborah A. Trytten Vitae

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## Personal Information

### *Contact Information*

School of Computer Science  
University of Oklahoma  
110 W. Boyd; Room 234  
Norman, OK 73019

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Home Phone: 405-447-6265  
Email: [dtrytten@ou.edu](mailto:dtrytten@ou.edu)

### *Professional Appointments*

2014-Present	Tenured Associate Professor University of Oklahoma	Womens' and Gender Studies Norman, Oklahoma
1998-Present	Tenured Associate Professor University of Oklahoma	School of Computer Science Norman, Oklahoma
2007-2008	Acting Associate Director University of Oklahoma	School of Computer Science Norman, Oklahoma
2006-2007	Interim Director University of Oklahoma	School of Computer Science Norman, Oklahoma
2001-2002	Founder, Chief Technology Officer, and Co-CEO Beyond Paper, Inc.	Norman, Oklahoma
1992-1998	Assistant Professor University of Oklahoma	School of Computer Science Norman, Oklahoma
1989-1992	Systems Manager Michigan State University	Department of Computer Science East Lansing, Michigan
1989-1990	Teaching Assistant Michigan State University	Department of Computer Science East Lansing, Michigan
Summer 1989	Visiting Researcher	Universite de Technologie de Compiegne Compiegne, Cedex, France
1987-1989	Research Assistant Michigan State University	Department of Computer Science East Lansing, Michigan
1986-1987	Teaching Assistant Michigan State University	Department of Computer Science East Lansing, Michigan
1984-1986	Instructor of Mathematics William Penn College	Department of Mathematics Oskaloosa, Iowa

### *Education*

Ph. D.	Computer Science	Michigan State University	1992
M. S.	Computer Science	Michigan State University	1988
M. S.	Applied Mathematics	Michigan State University	1984
B. A.	Physics and Mathematics	Albion College	1982

## ***Honors and Awards***

Presidential Professorship, 2015.

William Elgin Wickenden Award, American Society for Engineering Education, 2012.

University of Oklahoma Regents Award for Superior Teaching, 2011.

Teaching Scholars Award, College of Engineering 2010.

OU Foundation Excellence in Teaching Award, 2009.

College of Engineering Outstanding Faculty Academic Advisor Award, 2006.

Member, Oklahoma State Science and Engineering Fair Hall of Fame, 2004.

Educators Leadership Academy/Outstanding Professors Academy, 2003-2004.

Paper identified as one of ten best at Frontiers in Education, 1999.

Award with Oklahoma State Department of Health Team for best use of data to improve public health, for work done on OSIIS database from Every Child by Two Immunization Registry.

Distinguished Lectureship in Engineering, University of Oklahoma, 1996.

Provost's Award for Outstanding Academic Advising, University of Oklahoma, 1996.

Outstanding Senior Mathematics Major, Albion College, 1982.

Albion Fellow (3 consecutive semesters with GPA above 3.75), 1981.

## ***Consulting Activities***

Expert Witness	Fall 2000-2010	
Image processing	Summer 1996-1998	Pave Tech Inc. Norman, Oklahoma
Color image processing	Summer 1995-Fall 1995	BancTec Corporation Oklahoma City, Oklahoma
Clustering algorithms	Summer 1993	United States Army Fort Sill, Oklahoma
Image processing	Summer 1987	Department of Pathology Michigan State University

## Research Activities

### ***External Grants and Contracts Received***

*The Privilege of Student, Experiential Learning, Engineering Competition Teams (SELECT)*, National Science Foundation, 9/15/11-9/14/15, Susan Walden, Cynthia Foor, Deborah Trytten and Randa Shehab, \$1,497,843.

*K20 GEAR UP for the PROMISE (Promoting Readiness through Opportunities that Motivate and Increase Student Expectations)*, U.S. Department of Education, 9/26/11-9/25/18, Scott Wilson, Deborah Trytten, Gregg Garn, Linda Atkinson, Leslie Williams, \$26,700,000.

*K20 Pathways to SUCCESS (Sowing University and College Connections Early in Student's Studies) (Gear-Up)*, U.S. Department of Education, 7/15/2008-7/14/2015. Scott Wilson, Deborah Trytten, Jean Cate, Tim Laubach, Linda Atkinson, \$16,700,000.

*Interagency Agreement for Application Development Between the Office of Juvenile Affairs and the University of Oklahoma: 2008*, Office of Juvenile Affairs, 7/1/2007-6/30-2008, Deborah Trytten, Le Gruenwald, \$31,999.00.

*Interagency Agreement for Application Development Between the Office of Juvenile Affairs and the University of Oklahoma: 2007*, Office of Juvenile Affairs, 7/1/2006-6/30/2007, Deborah A. Trytten, Le Gruenwald, \$61,867.00.

*Engineering in Practice for a Sustainable Future*, National Science Foundation, GK-12, 05/01/06-04/30/11, PI Mark Nanny, Co-PIs Mary John O'Hair, Susan Walden, Leslie Williams, and Deborah Trytten, \$2,000,000. (Supplement of \$98,865 funded Spring 2008).

*Interagency Agreement for Application Development 2006*, Office of Juvenile Affairs, 7/1/2005-6/30/2006, Deborah Trytten, Le Gruenwald, \$61,910.16.

*STEM: Portraying Success Among URM Engineering Majors Sponsored by the Division of Undergraduate Education*, National Science Foundation, CCLI – STEM Program (0431642), January 2005 to December 2008, Principal Investigator, Teri Jo Murphy, Co-Principal Investigator: Teri Reed Rhoads, Jeanette Davidson, Susan Walden, Randa Shehab, and Deborah Trytten \$1,460,431. (Supplement of \$272,448.00 funded Spring 2008).

*K-20 Networks of Emerging Technology (NET): Math and Literacy Lesson Studies*, 10/01/05 - 9/30/08, U.S. Department of Education, PI Mary John O'Hair, Co-PIs Randy Averso, Linda Atkinson, Jean Cate, Deborah Trytten, \$3,595,372.

*Why Does It Work? A Study of Successful Gender Equity in Industrial Engineering at the University of Oklahoma*, National Science Foundation, Program for Gender Equity, 01/01/03-12/31/05, T. J. Murphy, Betty Harris, Teri Reed Rhoads, Randa Shehab, and Deborah Trytten, \$899,562.

*OSIIS Maintenance and Training*, Oklahoma State Department of Health, 01/01/2005-12/31/2005, Deborah A. Trytten, Le Gruenwald, \$134,681.

*Interagency Agreement for Application Development 2005*, Office of Juvenile Affairs, 7/1/2004-6/30/2005, Deborah Trytten, Le Gruenwald, \$52,501.05.

*OSIIS Maintenance and Training 2004*, Oklahoma State Department of Health , 01/01/2004-12/31/2004, Deborah A. Trytten, Le Gruenwald, \$141,284.

*Interagency Agreement for Application Development*, Office of Juvenile Affairs, 7/1/2003-6/30/2004, Deborah Trytten, Le Gruenwald, \$51,006.

*OSIIS Development FY03*, Oklahoma State Department of Health, 01/01/2003-12/31/2003, Deborah A. Trytten, Le Gruenwald, \$141,284.

*Application Development 2000*, Office of Juvenile Affairs, 7/1/2002-6/30/2003, Deborah Trytten, Le Gruenwald, \$51,006.00.

*OSIIS Development and Expansion Project 2002*, Oklahoma State Department of Health, 01/01/2002-12/31/2002, Deborah A. Trytten, Le Gruenwald, \$135,722.

*Pipeline Safety Education*, Koch Industries, 01/01/2001-12/31/2001, Deborah Trytten, Jeffrey Harwell, and Teri Reed Rhoads, \$1,000,000.

*Application Development*, Office of Juvenile Affairs, 7/1/2001-6/30/2002, Deborah Trytten, Le Gruenwald, \$53,191.56.

*OSIIS Development and Expansion Project*, Oklahoma State Department of Health, 01/01/2001-12/31/2001, Deborah A. Trytten, Le Gruenwald, \$122,044.

*Instructional Services for Spring 2001*, University of Science and Arts of Oklahoma, 2001, Deborah Trytten, \$8,480.

*An Agreement on Application Development between the Office of Juvenile Affairs and the Board of Regents of University of Oklahoma*, Office of Juvenile Affairs, 1/1/2000-12/31/2000, Deborah Trytten, Le Gruenwald, \$76,635.36.

*OSIIS Database Project*, Oklahoma State Department of Health, 01/01/2000-12/31/2000, Deborah A. Trytten, Le Gruenwald, \$55,000.

*OSIIS Software/Database Management*, Oklahoma State Department of Health, 01/01/2000-12/31/2000, Deborah A. Trytten, Le Gruenwald, \$112,362.

*Application Development for Environmental Complaints and Various Services Divisions*, Oklahoma Department of Environmental Quality, 2000, Deborah Trytten, Le Gruenwald, \$177,779.28.

*Application Development for Environmental Complaints and Local Services Division, Waste Management Division, Water Quality Division and Air Quality Division, Oklahoma Department of Environmental Quality, 2000, Deborah Trytten, Le Gruenwald \$18,148.*

*OSIIS Software/Database Development and Improvement 1999, Oklahoma State Department of Health, 01/01/1999-12/31/1999, Deborah A. Trytten, Le Gruenwald, \$165,000.*

*OSIIS Development and Expansion Project 1999, Oklahoma State Department of Health, 01/01/1999-12/31/1999, Deborah A. Trytten, Le Gruenwald, \$94,826.*

*Database Design and Implementation, Baker Hughes Elasto Systems, 2000, Deborah Trytten, \$3,4722.56.*

*Halliburton Internship Agreement, Halliburton, 2000, Deborah Trytten, \$9,257.*

*EUpgrade System Support, EUpgrade.com, 2000, Deborah Trytten, \$15,813. Application Development for Environmental Complaints and Local Services Division, Waste Management Division, Water Quality Division and Air Quality Division AY 2000, Oklahoma Department of Environmental Quality, 1999, Deborah Trytten, Le Gruenwald, \$15,543.*

*Application Development for Environment Complaints and Local Services Division, Oklahoma Department of Environmental Quality, 1999, Deborah Trytten, Le Gruenwald \$91,795.*

*Continued Support for Application Development for the Waste Management Division, Oklahoma Department of Environmental Quality, 1999, Deborah Trytten, Le Gruenwald \$8,974.*

*Continuation of Application Development for Environmental Complaints and Local Services Division, Oklahoma Department of Environmental Quality, 1999, Deborah Trytten, Le Gruenwald \$8,316.*

*Environmental Complaints and Local Services/Water Quality Division, Oklahoma Department of Environmental Quality, 1999, Deborah Trytten, Le Gruenwald \$48,889.*

*Application Database Design Summer/Fall 98, Oklahoma Department of Environmental Quality, 1998, Deborah Trytten, Le Gruenwald \$31,728.*

*Application Database Design Summer/Fall 1998, Oklahoma Department of Environmental Quality, 1998, Deborah Trytten, Le Gruenwald \$54,719.*

*Client Server System Development for WDQ and ECLS 98-99, Oklahoma Department of Environmental Quality, 1998, Deborah Trytten, Le Gruenwald \$38,236.*

*Development and Improvement of the OSIIS 1998, Oklahoma State Department of Health, 01/01/1998-12/31/1998, Deborah A. Trytten, Le Gruenwald, \$165,000.*

*Student Support, Spring 1998, American Racing Pigeon Union, 1998, Deborah Trytten \$7,897.14.*

*Image Processing Testing Student Support Spring 98*, Pave Tech, Inc., 1998, Deborah Trytten, John Cheung, \$10,069.30.

*OSIIS Development and Expansion Project 1998*, Oklahoma State Department of Health, 01/01/1998-12/31/1998, Deborah A. Trytten, Le Gruenwald, \$112,362.

*OSIIS Installation and Training Project*, Oklahoma State Department of Health, 01/01/1997-12/31/1997, Deborah A. Trytten, Le Gruenwald, \$88,267.

*ODEQ Client Server Database, October-November 1997*, Oklahoma Department of Environmental Quality, 1997, Deborah Trytten, Le Gruenwald, \$3,465.

*Application Database Design*, Oklahoma Department of Environmental Quality, 1997, Deborah Trytten, Le Gruenwald, \$35,627.89.

*Database Development for Summer 1997-Spring 1998*, Oklahoma Department of Environmental Quality, 1997, Deborah Trytten, Le Gruenwald \$72,282.

*OSIIS Software/Database Maintenance and Development*, Oklahoma State Department of Health, 01/01/1997-12/31/1997, Deborah A. Trytten, Le Gruenwald, \$52,723.26.

*Client Server Database Design and Application Development--FY 1998*, Oklahoma Department of Environmental Quality, 1997, Deborah Trytten, Le Gruenwald \$50,000.

*Application Development for Environmental Complaints and Waste Management Division*, Oklahoma Department of Environmental Quality, 1997, Deborah Trytten, Le Gruenwald \$32,732.63.

*Testing WEB-Based Educational Materials*, Knowledge Transfer Systems, 1997, Deborah Trytten, \$25,242, 1997.

*Test Known Image Processing Algorithms Fall 1997*, Pave Tech, Inc, 1997, Deborah Trytten, John Cheung, \$20,619.

*Testing Known Image Processing Algorithms Summer 1997*, Pave Tech, Inc, 1997, Deborah Trytten, John Cheung, \$19,307.

*Web-Based Educational Materials*, Knowledge Transfer Systems, 1997, Deborah Trytten, \$8,866.

*Student Support-Software Development*, American Racing Pigeon Union, 1997, Deborah Trytten, \$6,799.21.

*Color Processing, JPEG Tuning, and Wavelet Compression*, BancTec Corporation, 1996, John Cheung, Deborah Trytten, \$14,868, 1996.

*Application Development for Waste Management Division*, Oklahoma Department of Environmental Quality, 1996, Deborah Trytten, Le Gruenwald \$81,000.87.

*Testing Known Image Processing Algorithms-Pave Tech*, Pave Tech, Inc, 1996, Deborah Trytten, John Cheung, \$19,844.

*Testing Known Image Processing Algorithms-Part II*, Pave Tech, Inc, 1996, Deborah Trytten, John Cheung, \$6,940.

*Testing Known Image Processing Algorithms*, Pave Tech, Inc, 1996, Deborah Trytten, John Cheung, \$13,486.

*Software Design for Client Server Financial Management System*, Oklahoma Department of Environmental Quality, 1996, Deborah Trytten, Le Gruenwald \$50,000.

*An Agreement on Application Development for Waste Management Division*, Oklahoma Department of Environmental Quality, 1996, Deborah Trytten, Le Gruenwald \$30,020.40.

*Software Design for Client Server System*, Oklahoma Department of Environmental Quality, 1996, Deborah Trytten, Le Gruenwald \$31,761.22.

*Development of Application to Aid Inspectors/Management in the Inspection and Enforcement Process*, Oklahoma Department of Environmental Quality, 1995, Deborah Trytten, Le Gruenwald \$28,212.03.

### ***Internal funding from the University of Oklahoma***

*The Development and Implementation of Adaptable Learning Tools*, Dean of the College of Engineering, 2001-2003, Teri Reed Rhoads, Randa Shehab, Deborah Trytten, Mary Court, \$231,000.

*Technology to Provide Interactive Remote Collaboration*, Technology for Learning Improvement, Provost of the University of Oklahoma, Summer 1996, Le Gruenwald, Deborah Trytten, John Canning \$17,550.

*Expanding the General Purpose Educational Laboratory of the School of Computer Science* Instructional Improvement Award from the Provost of the University of Oklahoma, Fall 1994, Deborah Trytten, Le Gruenwald, \$11,400.

### ***Journal Articles***

Deborah Trytten, Cindy E. Foor, Teri J. Murphy, Randa L. Shehab, Susan E. Walden, and Rui Pan, Unseen Differences: Students' Complex Individual Identities Require Engineering Educators to Enter Unfamiliar Territory, *ASEE Prism*, November 2014.

Deborah Trytten, Anna Wong Lowe and Susan Walden, A 'Model' Minority: Like other groups, Asian-Americans endure stressful stereotypes, *ASEE Prism*, October 2012.



Deborah Trytten, Anna Wong Lowe, and Susan Walden, "Asians are good at math. What an awful stereotype:" The Model Minority Stereotype's Impact on Asian and Asian American Engineering Students, *Journal of Engineering Education*, 101(3) July 2012, pp 439-468. William Elgin Wickendon Award winner for best paper in journal in 2012.

Jason Martin, Krista Hands, Stephen Lancaster, Deborah Trytten and Teri Murphy, 'Hard, but not too hard': Challenging Courses and Engineering Students, *College Teaching*, 56(2), Spring 2008, pp 107-113.

T.J. Murphy, Randa L. Shehab, Teri Reed-Rhoads, Cindy E. Foor, Betty J. Harris, Deborah A. Trytten, Susan E. Walden, Mary Besterfield-Sacre, M.Susan Hallbeck, William C. Moor Achieving Parity of the Sexes at the Undergraduate Level: A Study of Success, *Journal of Engineering Education*, 96(3), July 2007, pp 241-252.

Cynthia Foor, Susan Walden, and Deborah Trytten, "I wish that I belonged more in this whole engineering group:" Achieving Individual Diversity, *Journal of Engineering Education*, April 2007, pp 103-115.

Deborah Trytten, Progressing from Small Group Work to Cooperative Learning: A Case Study from Computer Science, *Journal of Engineering Education*, 90(1), January 2001, pp 85-92.

Deborah Trytten and Mihran Tuceryan, Extraction of Labeled Line Drawings in Intensity Images by Integration of Cooperative Vision Modules, *Pattern Recognition*, 28(2), 1995, pp 171-198.

### ***Conference Proceedings and Presentations***

Deborah Trytten, Rui Pan, Cindy Foor, Randa Shehab, Susan Walden, Inclusion or Exclusion? The Impact of the Intersection of Team Culture, Student Identity, and Pathway on Team Diversity, to appear in *2015 ASEE Annual Conference and Exposition*, Seattle, Washington: American Society for Engineering Education, June 2015.

Rui Pan, Randa Shehab, Cindy Foor, Deborah Trytten, Susan Walden, Building Diversity in Engineering Competition Teams by Modeling Industry Best-Practice, to appear in *2015 ASEE Annual Conference and Exposition*, Seattle, Washington: American Society for Engineering Education, June 2015.

Susan Walden, Rui Pan, Cindy Foor, Randa Shehab, Deborah Trytten, Leadership, Management and Diversity: Missed Opportunities within Student Design Competition Teams, to appear in *2015 ASEE Annual conference and Exposition*, Seattle, Washington: American Society for Engineering Education, June 2015.

Deborah Trytten, Cooperative Learning in Computer Science, Computer Science Tapestry Workshop presentation at Irvine, California, August 2014. (presentation only)

Cindy Foor, Susan Walden, Randa Shehab, and Deborah Trytten, “We weren’t intentionally excluding them...just old habits:” Women, (lack of) interest and an engineering student competition team, *Proceedings of the 2013 Frontiers in Education Conference*, Oklahoma City, Oklahoma, October 2013, pp 349-355.

Amy McGovern and Deborah Trytten, Making In-Class Competitions Desirable for Marginalized Groups, *Proceedings of the 2013 Frontiers in Education Conference*, Oklahoma City, Oklahoma, October 2013, pp 704-706.

Cindy Foor, Susan Walden, Deborah Trytten, Randa Shehab, “You choose between Team A, good grades, and a girlfriend—you get to choose two!” How a culture of exclusion is constructed and maintained in an engineering design competition team, *American Society of Engineering Educational Annual Conference*, Atlanta, Georgia, June 2013.

Deborah A. Trytten, ECAT: An Electronic Data Analysis Tool for ABET Display Materials, *Proceedings of the 2010 Frontiers in Education Conference*, Arlington, Virginia, October 2010.

Cliff Fitzmorris, Deborah A. Trytten, and Randa Shehab, Work in Progress--Factors Affecting the Successful Completion of an Industrial Engineering Program by Students from Rural Communities, *Proceedings of the 2010 Frontiers in Education Conference*, Arlington, Virginia, October 2010.

Deborah Trytten, Game Development as Software Engineering, Cameron University CS Conference, Lawton, OK, April 2012 (presentation).

Deborah Trytten, Anna Wong Lowe, and Susan Walden, Racial Inequality Exists in Spite of Overrepresentation: The Case of Asian American Students in Engineering Education, *2009 ASEE Annual Conference and Exposition*, Austin, Texas, June 2009.

Sarah L. Marsh, Deborah Trytten, Teri Reed-Rhoads, and Teri J. Murphy Faculty-Student Interactions in Engineering: The Influence of Social Reproduction on Representation of the Sexes, *Proceedings of the Second Research in Engineering Education Symposium*, Davos, Switzerland, July 2008.

Amy McGovern, Christopher Utz, Susan Walden, and Deborah Trytten, Learning the Structure of Retention Data using Bayesian Networks, *Proceedings of the 2008 Frontiers in Education Conference*, Saratoga Springs, New York, October 2008.

Deborah Trytten, Susan Walden, and Cindy Foor, Social Science Research in Engineering Education: Lessons Learned, *American Society of Engineering Education Annual Conference & Exposition*, Pittsburgh, PA, June 2008.

Bach Do, Yi Zhao, Deborah Trytten, and Anna Wong Lowe, "Getting an internship...I'm still trying to find that." Asian American Student Experiences Obtaining Engineering Internships, *Proceedings of the Asia-Pacific Educational Research Association International Conference 2006*, Hong Kong, China, November 2006.

Teri Murphy, Randa Shehab, Teri Reed Rhoads, and Deborah Trytten, A Multi-Institutional Study of Student Perceptions of Industrial Engineering, *Proceedings of the 2006 Frontiers in Education Conference*, San Deigo, CA, October 2006.

Lindsey McClure, Tyler Combrink, Cindy Foor, Susan Walden, and Deborah Trytten, I Wish Someone Would Have Told Me: Undergraduate Engineering Students Offer Advice to Incoming Students, *Proceedings of the 2005 American Society for Engineering Education Annual Conference and Exhibition*, June 2005.

Deborah Trytten, Susan Walden, Teri Reed Rhoads, Industrial Engineering Student Perceptions of Computer Science, Computer Engineering and Electrical Engineering, *Proceedings of the 2005 Frontiers in Education Conference*, Indianapolis, IN, October 2005.

Teri Reed Rhoads, Teri Murphy, and Deborah Trytten, A Study of Gender Parity: Department Culture from the Students' Perspective, *Proceedings of the 2005 Frontiers in Education Conference*, Indianapolis, IN, October 2005.

Stephen Lancaster, Susan Walden, Deborah Trytten, and Teri Murphy, The Contribution of Office-Hours-Type Interactions to Female Student Satisfaction with the Educational Experience in Engineering, *Proceedings of the 2005 American Society for Engineering Education Annual Conference and Exhibition*, June 2005.

Deborah Trytten, Randa Shehab, Teri Reed Rhoads, M. Jayne Fleener, Betty J. Harris, Anne Reynolds, Susan E. Walden, Sandra Kay Moore-Furieux, Elizabeth Kvach, Kim Warram and Teri Murphy, "Inviteful" Engineering: Student Perceptions of Industrial Engineering, *Proceedings of the 2004 American Society for Engineering Education Annual Conference and Exhibition*, Salt Lake City, UT, 2004.

Betty Harris, Susan Walden, Deborah Trytten, Randa Shehab, and Teri Murphy, Balancing on the Tightrope: Maintaining Gender Parity in a Successful Undergraduate Engineering Program, *Proceedings of the Women in Engineering Programs and Advocates Network/National Association of Minority Engineering Program Administrators, Inc. Conference*, 2005.

Deborah Trytten, A Design for Team Peer Code Review, *Proceedings of the 2005 SIGCSE Conference*, February 2005.

Deborah Trytten, Teri Reed Rhoads, and John Antonio, Designing an Outcomes Assessment Strategy for ABET CAC, *Proceedings of the Best Assessment Processes VII: A Working Symposium*, Rose-Hulman Institute of Technology, pp 43-51, April 2005.

Donna Shirley, Cathy Pierson, Deborah Trytten, Teri Reed Rhoads, and Mary Court, A Laptop College of Engineering at the University of Oklahoma, *Proceedings of the 2002 Frontiers in Education Conference*, November 2002.

Deborah Trytten, Progressing from Small Group Work to Cooperative Learning: A Case Study from Computer Science, *Proceedings of the 1999 Frontiers in Education Conference*, San Juan, Puerto Rico, November 1999.

This paper was recognized as one of the ten best at the conference.

Bernard Carette, Deborah Trytten, and Anita Stramski, Detection of Symmetry in Large Neurochemical Images, *Proceedings of the Twenty-Ninth ASILOMAR Conference on Signals, Systems, and Computers*, Monterey, California, October 1995.

John Akin and Deborah Trytten, Visualization of Genetic Algorithms, *Proceedings of Artificial Neural Networks in Engineering '95*, November 1995.

Deborah Trytten and Mihran Tuceryan, Segmentation and Grouping of Object Boundaries Using Energy Minimization, *Proc. IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, Maui, Hawaii, December 1991.

John Y. Cheung, Deborah Trytten and Rueben Guerra, Data Modeling and Visualization, *Proceedings of the Mid-America Symposium on Emerging Computer Technologies*, September 1995.

Arun Ramasamy and Deborah Trytten, A Study of Non-Direct Virtual 3D Rotation and Translation Controllers *Proceedings of the Mid-America Symposium on Emerging Computer Technologies '95*, September 1995.

Deborah Trytten, Cluster Recognition Algorithms for Battlefield Simulation, *Proc. Mid-America Conference on Intelligent Systems*, October 1994.

Deborah Trytten, Image Stitching: An Algorithm with a Genetic Algorithm Implementation, *Proc. Seventh Oklahoma Symposium on Artificial Intelligence*, November 1993.

### ***Technical Reports***

Deborah Trytten, Cluster Recognition Algorithms for Battlefield Simulation, Technical Report, Army Research Laboratory, ARL-CR-288, January 1996.

Deborah Trytten, The Representation of Generalized Cylinders in Quadric Notation, Technical Report, Universite de Technologie de Compiegne, Compiegne, France 1989.

### ***Case Studies***

Deborah Trytten, Information Storage on Computers, Thinking Critically with Mathematics: Tools, Ideas, and Applications, a case study in an electronic book by A. Magid and C. McKnight, work sponsored by NSF.

Deborah Trytten, How Computers Play Chess, Thinking Critically with Mathematics: Tools, Ideas, and Applications, a case study in an electronic book by A. Magid and C. McKnight, work sponsored by NSF.

### ***Dissertation***

Deborah A. Trytten, *The Construction of Labeled Line Drawings from Intensity Images*, Ph.D. Dissertation, Michigan State University, 1992.

## **Educational Activities**

### ***MS Thesis Supervision Completed***

Andrew Hulsizer, M.S. Computer Science

### ***Honors Thesis Supervision Completed***

Bach Do, B.S. Computer Science

John Akin, B.S. Computer Science

Cameron Kasmercik, B.S. Computer Science

Charles Work, B.S. Computer Science

### ***Students Currently Being Supervised***

Somayah Karsoun, Ph.D Computer Science, Anticipated in 2018

Cliff Fitsmorris, Ph.D General Engineering, Anticipated 2017

David Rice, M.S. Computer Science, Anticipated 2014

### ***Courses Developed and Taught***

ENGR 1411 Freshman Engineering Experience

ENGR 1420 Freshmen Engineering Orientation II

CS 1323 Introduction to Computer Programming

Including Internet and Open versions of using OU's Janux platform

CS 1333 (now CS 2334) Programming Structures and Abstractions

CS 1813 Discrete Mathematics (also taught as CS 3813 and CS 2813 Discrete Structures)

CS 2323 Assembly Language Programming

CS 2413 Data Structures

CS 3053 Graphical User Interfaces

CS 3723 Numerical Methods for Engineering Computing

CS 3980 Honors Research

CS 4053/5053 Computer Graphics

CS 4970 (now CS 4063) Computer Game Development

CS 4970 Programming Competition

CS 5063 Computer Vision

ENGR 5123 Engineering Education Inquiry (to be offered in future)

CS 5990 Independent Studies

CS 6990 Independent Studies

CS 5980 Research for Master's Thesis

CS 3980 Honors Research

CS 4910 Senior Reading/Research

TCOM 5971 Computer Ethics

## **Service Activities**

### ***Conference Organization Activities***

Grace Hopper Celebration of Computing, Faculty Committee Member	2014
General Co-Chair, Frontiers in Education	2013
Steering Committee, Frontiers in Education	2013-2016.
Women in Science (EPSCOR funded for high school women in Oklahoma) Program Committee	2009-2012
Mid-America Symposium on Emerging Computer Technologies Program Committee	1995-1996
Mid-America Symposium on Emerging Computer Technologies Steering Committee	1995

### ***Research Review Activities***

Frontiers in Education Conference	
American Society of Engineering Education Annual Conference (and Exposition)	
Journal of Engineering Education	
Journal of Social Psychology of Education	
National Science Foundation	
Association for Computing Machinery Special Interest Group in Computer Science Education Conference	
Innovation and Technology in Computer Science Education Conference	
IEEE Educon	
International Conference on Research in Engineering Education	
ACM Crossroads	
Texas Higher Education Coordinating Board (proposal review)	
IEEE Systems, Man, and Cybernetics	
IEEE Transactions on Education	
Pattern Recognition	
Pattern Recognition Letters	

### ***Professional Society Membership***

Association for Computing Machinery	
Institute of Electrical and Electronics Engineers	
American Society for Engineering Education	
Phi Beta Kappa	

### ***Departmental Service***

Member, Undergraduate Committee	1992-1993
Chair, Undergraduate Committee	1994-1999, 2001-Present
Member, ABET Assessment Committee	2014-Present
Chair, Undergraduate Advising	2010
Chair, ABET Accreditation Committee	2009-2010
Mentor, Game Developers Association	2009-Present
Mentor, Open Source Development	2013-Present

Member, Department Computing Committee	2007-2008
Member, Committee A	2005-2006, 1998-1999
Member, Faculty Transfer Curriculum Committee	2006, 2009, 2011
DEVAS Summer camp (for HS girls)	2010
BP Summer camp (for HS boys from racial/ethnic minorities)	2010
Keynote speaker at IEEE Student Banquet	2009
Chair, Publicity Committee	2009
Instructional Development Program Ambassador for CS	2005
Mentored graduate students teaching CS courses	2005-2008
Mentor, Student Chapter of ACM	1997-2000

### ***College Service***

PP03 Committee (evaluation procedures and policies for College)	2012-2013
Sooner Engineering Education Center, founding member, seminar organizer, steering committee member	2011-Present
Teaching Scholars Initiative Award Selection Committee	2011, 2013
Astronaut Scholarship Award Selection Committee	2013
Halliburton (Engineering) Womens' Welcome Presenter	2010-2013
Halliburton Womens' Welcome Scholarship Selection Committee	2012
High School Girls' Day	2013
Degree Navigator Liaison	2008-2010
KISS Institute for Practical Robotics, BotBall Judge	2011-2014
	2008-2009
	2006
Chair, Devon Faculty Office Furniture Selection Committee	2009
Member, ENGR 2002 Task Force	2009
Member, College Academic Appeals Board	2000
	2005-2009
Course Evaluation Form Committee	2006
Mentor, Engineers Club	2004
Chair, Devon Classroom Design Committee	2004
Member, Dean of Engineering Search Committee	1997-1998
Academic Appeals and Misconduct Board	1993-1994

### ***University Service***

Member, Provost's Advisory Committee on STEM	2014-Present
Member, Provost's Advisory Committee on Classroom Renovation	2014-2017
	2006-2009
Member, Student Conduct and Sexual Misconduct Hearing Panel	2012-Present
Research Institute for STEM Education, founding member	2011-Present
Faculty Advisor, Alpha Sigma Kappa (technical sorority)	2013-Present
Faculty Welfare Committee	2010-2013
Member, Provost's Advisory Committee on General Education Oversight	2006-2009
Member and Chair, Information Technology Council	2002-2005
	1995-1998



Member, Faculty Senate Small Executive Committee	2008-2009
Member, Faculty Senate	2006-2009
Member and Chair, Faculty Appeals Board	2008-2010
Academic Regulations Committee	2010
Adopt-A-Prof Faculty Mentor for Pi Kappa Alpha Fraternity	2010
Member, Alpha Lambda Delta Scholarship Selection Committee	2008
External Member, K20 Center Faculty Search Committee	2009
Member, Course Management System Task Force	2005
External member, School of Library and Information Sciences Search Committee	2005
All TA Training Workshop Presentation: Meaningful and Fair Grading	2002-2006
Member, Conflict of Interest Advisory Committee	2002
Mentor, OU Chapter of Habitat for Humanity	2000-2004
Member, Academic Programs Council	2000
Member, Academic Regulations Committee	2000
Member, Graduate College Academic Appeals Committee	2000
Member, ROTC Advisory Committee	1997-2000
University of Oklahoma Speakers Service	2000
Member, Provost's Outstanding Academic Advising Award Selection Committee	1999
Member, Task Force on Intellectual Property	1998
Writing Center Advisory Board	1997-1998
External Member, School of Mathematics Search Committee	1998
University Academic Appeals Board	1994-1995
Graduate Assessment of English Language Skills Committee	1994

### ***Professional Service***

ABET CAC Program Evaluator	2009-2012
ABET CAC Commissioner	2013-Present
Member, ABET CAC Curriculum Committee Task Force	2013-Present
Hosted Computer Science Tapestry Workshop	2013
Chair, NCWIT Aspirations in Computing Award Selection Oklahoma and Texas Panhandle Region	2014
Grace Hopper Conference Travel Scholarship Selection	2008, 2011
Member, NCWIT Aspirations in Computing Award Selection Oklahoma and Texas Panhandle Region	2012-Present
Graded Computer Science Advanced Placement Examinations	2004, 2008, 2012
Member, Moore Norman Technology Center Database Administration Program Advisory Board	2010
Computer Science Content Advisory Committees for Oklahoma Subject Area Tests (set standards for first teacher accreditation in CS in OK)	2010
Grace Hopper Conference Scholarship Sselection	2009
CIT Networking and CyberSecurity Advisory Committee at Rose State College	2009
Member, Advisory Committee for University of Texas Health Science Center Project "Women Veterans and Breast Cancer Screening"	1999-2000

Member, Defense Advisory Committee on Women in Services	1996-1999
Chair, Oklahoma City Chapter of IEEE	1997-1998
Chair, National Defense Science and Engineering Fellowship Review Panel	1996-1997
Member, National Defense Science and Engineering Fellowship Review Panel	1994-1995
Judge, Oklahoma State Science Fair	1993-2000 2003-2007