

Farshad Fotouhi

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GENERAL INFORMATION

Citizenship	U.S.
Marital Status	Married
Date of Birth	April 26, 1957

RESEARCH INTERESTS

Database Management Systems, Object-Oriented Systems, Query Optimization, Multimedia/Hypermedia Systems, Web-Databases, Medical Informatics

EDUCATION

June 1988	Ph.D. in Computer Science Michigan State University, East Lansing, Michigan Dissertation Title: Optimizing the Cost of Relational Join Queries
Dec. 1982	M.S. in Computer Science Western Michigan University, Kalamazoo, Michigan
Dec. 1981	B.S. in Computer Science and Mathematics Western Michigan University, Kalamazoo, Michigan

EMPLOYMENT SUMMARY

2004-Present	Professor & Chair, Department of Computer Science, Wayne State University, Detroit, Michigan 48202
2001-2003	Associate Chair, Department of Computer Science, Wayne State University, Detroit, Michigan 48202
1996-Present	Associate Professor, Department of Computer Science, Wayne State University, Detroit, Michigan
1989-1996	Assistant Professor, Department of Computer Science, Wayne State University, Detroit, Michigan
1988-1989	Senior Lecturer, Department of Computer Science, Wayne State University, Detroit, Michigan
1983-1988	Instructor, Lyman Briggs School, Michigan State University, East Lansing, Michigan

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MEMBERSHIP IN PROFESSIONAL SOCIETIES

Association for Computing Machinery (ACM), IEEE Computer Society, Information Resources Management Association

HONORS/AWARDS

- International Who's Who, 2000
- Received Excellence in Teaching Award, College of Science, Wayne State University, 1996
- Invited Video, The Sandbox, for an exhibit at the Centre Geroges Pompidou and the Cite des Sciences at de l'Industrie
- Received Best Paper Award in the Computer Graphics Conference, LEEDS, England, 1995
- Who's Who Worldwide , 1994
- Received Special recognition for efforts in research and development of Lyman Briggs Computer Lab, 1988

FUNDED/PENDING PROPOSALS

NSF, "Instrument Acquisition for Endangered Languages Research; Development of on Ontology Toolbox," September 2005-August 2008, \$294,200, (CO-PIs: Hasan Jamil, Shiyong Lu, Ming Dong, Anthony Aristar)

NIH, "Integrated Image Analysis System for Epilepsy," August 2004-July 2008, \$810,000, (PI. Hamid Soltanian-Zadeh, Henry Ford Health System, Grant #: 1 R01 EB002450-01A)

NIH/DHHS, "Infrastructure Equipment for Gene Expression Analysis", August 2003 – July 2004, \$188,256, (PI- S. Draghici)

Reckitt Benckiser Pharmaceutical Inc., "Post-Marketing Abuse Surveillance-Subutex/Suboxone," September 2003-May 2005, \$98,668.

Wayne State University, Research Enhancement Program, "Advanced Technologies in Language Engineering: A Digital Library for Endangered Languages," \$200,000, August 2003 – July 2005 (Co-PIs: S. Lu, M. Dong, R. Reynolds from Computer Science; A. Aristar, M. Ratliff, G. Nathan from English Department; J. Tan from Information Systems and Manufacturing; R. Powell from Library and Information Science Program)

Michigan Life Sciences Corridor, "Biocomputing and Bioengineering Tools for Surgical Applications," \$3,442,150, September 2003-September 2006 (PI- Lucia Zamorano and 7 other Co-PIs)

Data Consulting Group and City of Detroit Water & Sewerage Department, "EMPAC Knowledge Transfer and Training," \$311,818, June 2002-August 2003 (Co-PI, M. Brockmeyer, Co-PI, G. Morrison, College of Education)

NIH, "A Drosophila Genome-wide Protein Interaction Map," January 2002 – December 2004, \$1,318,885 (PI- Dr. Russell Finley Jr., Center for Molecular Medicine & Genetics, Grant #: 2R01HG01536-06A1)

Henry Ford Health Systems, "Medical Image Processing and Information Analysis," September 2001 – August 2003, \$94,125.

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Medical Knowledge Systems, Inc. Detroit, MI, "Design and Development of Wireless RAMS Patient Queue System," September 2002, August 2003, \$37,809.

Weiss Construction & City of Detroit Water & Sewerage Department, "Evaluation and Recommendations for DWS-805/808 SCADA System Mapping and Tracking System," September 2001-August 2002, \$180,737.

National Institute on Drug Abuse, "Interactive Motivational Media for Perinatal Drug Abuse," April 2001-March 2006, \$443,446. (PI-Dr. Steven Ondersma, Department of Psychiatry, Co-PI: Charles Schuster, Department of Psychiatry, Grant #: 5R21 DA14621-02).

National Institute on Drug Abuse, "Brief Intervention with At-Risk First Time Mothers", April 2001-November 2005, \$461,676. (PI-Dr. Steven Ondersma, Merrill-Palmer Institute, Grant #: 5R21 DA00516)

Skillman Foundation through Southeastern Michigan Health Association, "Mining Childhood Immunization Registry Database," January 2002-December 2003, \$32,272.

Medical Knowledge Systems, Inc. Detroit, MI, "Image + Medical Record Database for Cancer Patients," January 2000-August 2002, \$236,604.

Skillman Foundation through Southeastern Michigan Health Association, "Southeastern Michigan Childhood Immunization Registry," January 1999-December 2001, \$176,632.

Wayne State University, Instructional Equipment Grant, 2002, \$50,380.

Wayne State University, Student Technology Fund, "Web-Casting Computer Science Courses," \$18,024, 2001.

Wayne State University, Student Technology Fund, "Fostering Experimentation in the Computer Science Curriculum, \$77,056, 2001.

Wayne State University, Instructional Equipment Awards, 2001, \$33,000.

NSF, CISE Research Instrumentation, "Laboratory for Data Management and Modeling," January 1998-December 1998, \$91,048. Wayne State University has also contributed \$80,224 to this project. (PI - W. Grosky)

Qualisoft, "Enhancements of the QFD Designer," May 1998– August 1998, \$13,000.

Ford Motor Company, Advanced Vehicle & CAE Systems Department, "A Multimedia Interface to the Global PowerTrain Common Data Naming System," August 1996-May 1997, \$32,570.

Ford Motor Company, Safety Laboratory Department, "A Multimedia Adaptive Interface to the Auto Safety Database," September 1995- December 1996, \$45,034.

Ford Motor Company, Scientific Research Laboratory, "Safety Information Access System," May 1995-December 1996 \$115,100. (Co-PI: W.I. Grosky)

Medical Knowledge Systems, Inc. Detroit, MI, "Study of Data Warehouses for PACS," June 1995-May 1996, \$21,820. (Co-PI: W.I. Grosky)

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Wayne State University, Interdisciplinary Research Seed Fund, "Computer Based Nursing Intervention and Smoking Cessation Outcomes in Pregnant Women," May 1995, \$5,000. (PI: Virginia Rice, Co-PIs: P. Hoyer, College of Nursing, and M. Ayer, College of Medicine)

American Cancer Society, "C.A.R.E., Cancer Attitude Risk Education," August 1994-May 1994, \$32,192. (Co-PIs: Don Ragan and Arthur Porter, Radiation Oncology Department)

Ford Motor Company, Safety Laboratory Department, "Database Application Development/Enhancements for the Auto Safety Testing," September 94-August 1995, \$29,735.

Wayne State University, College of Science, "CASPER: A Hypermedia Departmental Information System," September 1994-August 1995, \$8,448 for equipment and one GRA. (Co-PI: N. Goel)

Medical Knowledge Systems, Inc. Detroit, MI, "Medical Image Databases," June 94-May 95, \$25,520. (Co-PI: W.I. Grosky)

US Army TACOM, Warren, MI, "Tracked Vehicle Workstation (TVWS) Data Model Evaluation," October 1993-May 1994, \$14,880. (PI: W.I. Grosky)

McInerney/Miller Bros., Detroit, Michigan, "Sales Automation Systems," November 1993-December 1993, \$4,120.

Ford Motor Company, Engineering Data System, CAD/CAM Department, "Real-Time Error Detection in the Automatic Vehicle Weighing System," May 93-August 94, \$55,000. (Co-PI: W. I. Grosky).

Wayne State University, Interdisciplinary Research Seed Fund, "Anatomical Atlas Database Management," August 1993, \$5000. (Co-PIs: W.I. Grosky, and S.P. Rana)

Ford of England, "An Object-Oriented Approach for Integrating Heterogeneous Databases," January 1992-May 1993, \$55,000. (PI: W.I. Grosky)

Ford Motor Company, Information Systems Department, Car Product Development, "Dispersed Data Management," January 1990- May 1991, \$58,573. (PI: W.I. Grosky)

Wayne State University, "Genetic Algorithms and the Search for an Optimal Database Secondary Index Set," Faculty Research Award, 1990, \$5,000.

Wayne State University, "Object-Oriented Database Design," Supplemental Research Equipment Fund Award, 1990, \$15,657. (PI: W.I. Grosky)

PUBLICATIONS

Book Chapters

M. Truta, F. Fotouhi, D. Barth-Jones, "Global Disclosure Risk for Microdata with Continuous Attributes," accepted for publication in the book "Privacy and Identity: The Promise and Perils of a Technological Age", Kluwer Publishing, to appear, Spring 2005

M.-R. Siadat, H. Soltanian-Zadeh, F. Fotouhi, K. Elisevich, "A Content-Based Image Database System for Epilepsy," *To appear in the Journal of Computer Methods and Programs in Biomedicine*, Elsevier Publisher, 2005

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W.I. Grosky, D.V. Sreenath, and F. Fotouhi, 'Emergent Semantics from Users' Browsing Paths,' In *Intelligence and Security Informatics*, Lecture Notes in Computer Science, Volume 2665, H. Chen, R. Miranda, D. Zeng, C. Demchak, J. Schroeder, and T. Madhusudan (Eds.), Springer, Berlin, 2003, pp. 355-357.

M. Johnson, F. Fotouhi and S. Draghici, "Query-by-Structure Approach for the Web," Data Mining: Opportunities and Challenges, Edited by John Wang, Idea Group Publishing, 2003, pp. 301-322.

P. Stanchev, F. Fotouhi, M. Siadat, and H. Soltanian-Zadeh, "Medical Multimedia Databases," Multimedia Mining, a Highway to Intelligent Multimedia Documents, Kluwer Publishing, vol. 22, 2002, edited by C. Djeraba, pp. 139-158

P. Stanchev and F. Fotouhi, "MEDIMAGE - A Multimedia Database Management System for Alzheimer Disease Patients," in Recent Advances in Visual Information Systems, Lecture Notes in CS 2314, 2002, edited by S. Chang, Z. Chen and S. Lee, pp. 187-193.

R. Tikekar, F. Fotouhi and D. Ragan, "Query Optimization in Tertiary Storage Based Systems Using a Generalized Storage Model," Current Trends in Data Management Technology, A. Dogac, M. Tamer Ozsu and Ozgur Ulusoy, Idea Group Publishing, 1999, pp. 97-112

A. Ikeji, and F. Fotouhi, "Optimization of Constrained Queries with a Hybrid Genetic Algorithm," Lecture Notes in Computer Science #1460, Edited by G. Quirchmayr, E. Schweighofer and T. Bench-Caponpp, 1998, pp. 342-352

W. I. Grosky, F. Fotouhi and Z. Jiang, "Using Metadata for the Intelligent Browsing of the Structured Media Objects," Managing Multimedia Data: Using Metadata to Integrate and Apply Digital Data, Edited by Amit Sheth and Wolfgang Klas, McGraw Hill, 1998, pp. 67-91

A. Johnson and F. Fotouhi, "Data Retrieval Through Virtual Experimentation," Computer Graphics, Development in Virtual Environment, Edited by R. Earnshaw and J. Vince, Academic Press, 1995, pp.393-409

W. I. Grosky, F. Fotouhi and J. Sun, "Dynamic Selectivity Estimation for Multidimensional Queries," Lecture Notes in Computer Science #730, David B. Lomet (Ed.), Springer-Verlag, Oct. 1993, pp.231-246

F. Fotouhi, Database Management, *Macmillan Encyclopedia of Computers*, Macmillan Publishing Company, New York, 1992.

F. Fotouhi and C. Galarce, "Genetic Algorithms and the Search for an Optimal Relational Database Index Set," Lecture Notes in Computer Science #507, Springer-Verlag, 1991, pp. 249-255

Journal Articles

M.-R. Siadat, H. Soltanian-Zadeh, F. Fotouhi, K. Elisevich, "Knowledge-Based Identification and Localization of Hippocampus in Human Brain MRI," submitted to *IEEE Transactions on Biomedical Engineering*, (Accepted with revision), December 2004

W. Grosky, N. Patel, X. Li and F. Fotouhi, "Dynamically Emerging Semantics in an MPEG-7 Image Database," to appear in the *Computer Journal*, 2005.

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M.-R. Siadat, H. Soltanian-Zadeh, F. Fotouhi, K. Elisevich, "A Content-Based Image Database System for Epilepsy," to appear in the *Journal of Computer Methods and Programs in Biomedicine*, Elsevier Publisher, 2005.

S. Lu, Y. Sun, M. Atay and F. Fotouhi, "On the Consistency of XML DTDs", *International Journal of Data and Knowledge Engineering*, Vol. 52, No. 2, 2005, pp. 231-247

M. Johnson, F. Fotouhi, M. Dong and S. Draghici, "Discovering Document Semantics QBYS: A System for Querying the WWW by Semantics," to appear in the *Journal of Multimedia Tools and Applications*, Vol. 24, 2004, pp. 155-188

A. Chebotko, Y. Deng, S. Lu, F. Fotouhi and A. Aristar, "An Ontology-based Multimedia Annotator for the Semantic Web of Language Engineering," *International Journal on Semantic Web and Information Systems*, Vol. 1, No. 1, Jan-March 2005, pp. 50-67

S. Lu, R. Huang, A. Chebotko, Y. Deng and F. Fotouhi, "IMAGESPACE: An Environment for Image Ontology Management," *International Journal Information Theories and Applications*," Vol. 11, No. 2, 2004, pp. 127-133

M.-R. Siadat, H. Soltanian-Zadeh, F. Fotouhi, K. Elisevich, "A Content-Based Image Database System for Epilepsy," to appear in the *Journal of Computer Methods and Programs in Biomedicine*, Elsevier Publisher, 2005.

R. Agrawal, F. Fotouhi, P. Stanchev and M. Dong, "MPEG-7 based Image Retrieval on the World Wide Web," *International Journal Information Theories and Applications*, Vol. 11, No. 2, 2004, pp. 112-119

Y. Lu, S. Lu, F. Fotouhi, Y. Deng and S. Brown, "Incremental Genetic K-means Algorithm and its Applications in Gene Expression Data Analysis," *International Journal of BMC Bioinformatics*, Vol. 5, No. 172, October 2004

S. Lu, D. Liu, F. Fotouhi, M. Dong, R. Reynolds, A. Aristar, M. Ratliff, G. Nathan, J. Tan, R. Powell, "Language Engineering For The Semantic Web: A Digital Library For Endangered Languages", *International Journal of Information Research*, Vol. 9, No. 3, 2004.

A. Shah, F. Fotouhi, W. Grosky, S.H. Shah Khan, and J. Al-Muhtadi, "Operators of the Temporal Object System and Their Implementation," *Information Sciences*, Volume 158, Number 1, January 2004, pp. 37-68

D. Hwang, F. Fotouhi, Y. Son, "A Case Study: Development of an Organism-Specific Protein Interaction Database and its Associated Tools," *International Journal of Cooperative Information Systems*, special issue: *Data Management and Modeling Support in Bioinformatics*, Vol. 12, No. 2, June 2003, pp.. 225-239

W. Grosky, DV Sreenath, and F. Fotouhi, "Emergent Semantics and the Multimedia Semantic Web," *ACM SIGMOD Record*, Vol. 13, No. 4, December 2002, pp. 54-58

S. Lu, M. Dong and F. Fotouhi "The Semantic Web: Opportunities and Challenges for Next-Generation Web Applications," *Information Research, An International Electronic Journal*, Vol. 7, No.4. Special Issue on the Semantic Web, 2002.

V. Hill Rice, F. Fotouhi, E. Burns, P. Hoyer and M. Ayers, "Exemplary Program Development: A Hypermedia Interactive Smoking Cessation Intervention Program for Pregnant Women," *Journal of Prenatal Education*, Vol. 6, No. 3, 1998, pp. 47-58

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A. Ibrahim, F. Fotouhi and S. Hasan, "SB⁺-Tree: A Efficient Index Structure for Joining Spatial Relations," *International Journal of Geographical Information Science*, Vol. 11, No. 2, 1997, pp 163-182

M. Bernardo, and F. Fotouhi, "Evaluation of Best Access Plans for Cyclic Queries in Object-Oriented Databases," *Journal of Computing and Information*, Vol. 2, No. 1, November 1996, pp. 749-770

M. Johnson, and F. Fotouhi, "Adaptive Clustering of Hypermedia Documents," *Information Systems Journal*, Vol. 21, No. 6, 1996, pp. 459-473.

M. Johnson, F. Fotouhi, N. Goel, R. Weinand and J. Lechvar, "CASPER: A Hypermedia Departmental Information System," *IEEE Trans. on Education*, Vol. 39, No. 4, 1996, pp.471-477.

A. Shah, F. Fotouhi and W. Grosky, "A Temporal Object System for a Clinical Environment," *Journal of Mathematical Modeling and Scientific Computing*, Vol. 6, 1996.

M. Johnson, and F. Fotouhi, "SANDBOX: Accessing Scientific Data Through Experimentation," *ACM Interactions*, Vol. II.3, July 1995, pp. 34-45.

M. Johnson and F. Fotouhi, "Adaptive Indexing in Very Large Databases," *Journal of Database Management*, Vol. 6, No. 1, 1995, pp. 4-12

W. Grosky, F. Fotouhi, I. Sethi, and B. Capatina, "Content-Based Hypermedia - Intelligent Browsing of Structured Media Objects," *ACM SIGMOD Record*, Vol. 23 No. 4 December 1994, pp. 49-56

F. Fotouhi, A. Shah, I. Ahmad, and W. Grosky, "TOS: A Temporal Object-Oriented System for a Manufacturing Environment," *Journal of Database Management*, Vol. 5, No. 4, 1994, pp. 3-14

F. Fotouhi, A. Johnson and S.P. Rana, "Hash-Based Transitive Closure Algorithms," *The Computer Journal*, Vol. 35, No. 3, 1992, pp. A251-A259

Pramanik and F. Fotouhi, "Join and Semi-Join Algorithms Based on Partial-Relation Schemes," *The Computer Journal*, Vol. 35, No. 1, 1992, pp. A131-A140

F. Fotouhi, J. Leigh and S.P. Rana, "Optimal Parallel Scheduling of M-Way Join Queries," *Information Systems*, Vol. 16, No. 6, December 1991, pp. 627-639

F. Fotouhi and S. Pramanik, "Determining an Optimal Access Sequence in Performing Relational Join is NP-hard," *Information Processing Letters*, vol. 38, June 1991, pp. 271-275

T. Lee and F. Fotouhi, "Indexing Method for Object-Oriented Databases," *KSEA Letters*, Vol. 19, No. 2, October 1990, pp. 43-47

F. Fotouhi and S. Pramanik, "Problem of Optimizing the Number of Block Accesses in Performing Relational Join," *IEEE Transaction on Knowledge and Data Engineering*, Vol. 1, No. 3, September 1989, pp. 318-32

F. Fotouhi and S. Pramanik, "Optimizing the Cost of Relational Queries Using Partial-Relation Schemes," *Information Systems*, Vol. 13, No. 1, 1988, pp. 71-79

Pramanik and F. Fotouhi, "Index Database Machine," *The Computer Journal*, Vol. 29, No. 5, 1986, pp. 451-457

Refereed Conferences

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C. Yang, M. Dong, and F. Fotouhi, "Image Content Annotation Using Bayesian Framework and Complement Components Analysis," *Proc. of IEEE International Conference on Image Processing*, Italy, Sept, 2005.

M. Rege, M. Dong, and F. Fotouhi, "XML Path based Relevance Model for Automatic Image Annotation," *Proc. of IEEE International Conference on Multimedia and Expo*, Netherlands, July 2005.

C. Yang, M. Dong and F. Fotouhi, "I²A: An Interactive Image Annotation System," *Proc. of IEEE International Conference on Multimedia and Expo*, Netherlands, July 2005.

J. Yu and F. Fotouhi, "Computational Approaches for Predicting Protein-Protein Interactions: A Survey," *Proceedings of the Business and Health Administration Association Conference*, Mary K. Madsen and Peter Fitzpatrick, Editors, 2005, pp. 58-85

S. Pacifico and F. Fotouhi, "A Graphical Tool for Browsing Gene Interaction Data," *Proceedings of the Business and Health Administration Association Conference*, Mary K. Madsen and Peter Fitzpatrick, Editors, 2005, pp. 52-57

H. Yan, W. Grosky and F. Fotouhi, "Augmenting the Power of the Various Versions of LSI Used in Document Retrieval," to appear in the Proceedings of 4th International Workshop on Databases in Networked Information System (DNIS), 2005, Japan.

A. Chebotko, D. Liu, M. Atay, S. Lu and F. Fotouhi, "Reconstructing XML Subtrees from Relational Storage of XML Documents," to appear in the *Proceedings of the XSDM 2005*, in conjunction with the ICDE 2005, Tokyo, Japan, April 2005.

M. Truta, F. Fotouhi, D. Barth-Jones, "Assessing Global Disclosure Risk Measures in Masked Microdata," Proceedings of the Workshop on Privacy and Electronic Society (WPES2004), In Conjunction with 11th ACM CCS, Washington DC, 2004, pp. 85 – 93

M.-R. Siadat, H. Soltanian-Zadeh, F. Fotouhi, K. Elisevich, "Bayesian landmark identification in medical images," *SPIE*, vol. 5370, 2004, pp. 628-639

R. Agrawal, F. Fotouhi, P. Stanchev and M. Dong, "MPEG-7 Based Image T=Retrieval on the World Wide Web," *Proceedings of the 2nd International Workshop on Multimedia Semantics*, Sofia, Bulgaria, 2004, pp. 164-175

M. Rege, I. Caraconcea, S. Lu, and F. Fotouhi, "Querying XML Documents from a Relational Database in the Presence of DTDs," *Proceedings of the 1st International Conference on Distributed Computing and Internet Technology (ICDCIT'2004)*, Lecture Notes in Computer Science, Vol. 3347, Bhubaneswar, India, December 2004, pp. 168-177

A. Chebotko, Y. Deng, S. Lu, F. Fotouhi, H. Brugman, A. Klassmann, H. Sloetjes, A. Russel, and P. Wittenburg, "OntoELAN: An Ontology-based Linguistic Multimedia Annotator", *Proceedings of the IEEE Sixth International Symposium on Multimedia Software Engineering (MSE'2004)*, Miami, FL, USA, December, 2004, pp. 329-336

S. Lu, R. Huang, A. Chebotko, Y. Deng, and F. Fotouhi, "ImageSpace: An Environment for Image Ontology Management", *Proceedings of the Second Special Workshop on Multimedia Semantics of the 29th International Conference on Information and Communication Technologies and Programming*, Bulgaria, June 2004.

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D.V.Sreenath, W.I.Grosky, F. Fotouhi, "Using coherent Semantic Subpaths to Derive Emergent Semantics," to appear in the *Proceedings of the 8th International Conference on Knowledge-Based Intelligent Information and Engineering Systems, Invited Session on Web Mining and Personalization*, New Zealand, 2004.

M. Atay, Y. Sun, D. Liu, S. Lu and F. Fotouhi, "Mapping XML Data to Relational Data: a DOM-based Approach", *Proceedings of the 8th IASTED International Conference on Internet and Multimedia Systems and Applications (IMSA '2004)*, Kauai, Hawaii, USA. August 2004, pp. 59-64

S. Lu, R. Huang, and F. Fotouhi, "Annotating Linguistic Data with ImageSpace for the Preservation of Endangered Languages", *Proceedings of the 19th International Conference on Computers and Their Applications (CATA'2004)*, Seattle, WA, USA, March, 2004, pp. 193-196

R. Huang, S. Lu and F. Fotouhi, "ImageSpace: An Image Ontology Creation and Annotation Tool", *Proceedings of the 19th International Conference on Computers and Their Applications (CATA'2004)*, Seattle, WA, USA, March, 2004, pp. 340-343

Y. Lu, S. Lu, F. Fotouhi, Y. Deng, and Susan Brown, "FGKA: A Fast Genetic K-means Algorithm" *Proceedings of the 19th ACM Symposium on Applied Computing*, Nicosia, Cyprus, March, 2004, pp. 162-163

C. Yang, M. Dong, and F. Fotouhi, "Learning the Semantics in Image Retrieval - A Statistical Natural Language Processing Approach", to appear in the *Proceedings of the 4th International Workshop on Multimedia Data and Document Engineering (MDDE-04)*, In conjunction with *Computer Vision Pattern Recognition Conference (CVPR-04)*, July 2004.

M. Truta, F. Fotouhi, D. Barth-Jones, "Disclosure Risk Measures for the Sampling Disclosure Risk Method," *Proceedings of the 2004 ACM Symposium on Applied Computing*, March 2004, Cyprus, pp. 301-306

J. Stefan, R. Reynolds, F. Fotouhi, A. Aristar, S. Lu and M. Dong, "Evolution Based Approaches to the Preservation of Endangered Natural Languages," *Proceedings of the IEEE International Congress On Evolutionary Computation (CEC'003)*, Australia, 2003, pp. 1980-1987

W.I. Grosky, F. Fotouhi, A. Aristar, M. Dong, H. Jamil, S. Lu, and R. Reynolds, "A Digital Library for Endangered Languages," *Proceedings of the 2003 Nara Symposium for Digital Silk Roads*, Nara, Japan, December 2003, pp. 85-92.

X. Duo, M. Dong, F. Fotouhi and L. Schwiebert, "Hierarchical Search and Browsing of Face Image Databases", *Proceedings of Smart Engineering System Design: Neural Networks, Fuzzy Logic, Evolutionary Programming, Data Mining and Complex Systems*, Vol 13, 2003, pp. 601 -- 606

Z. Ma, S. Lu, and F. Fotouhi, "Conceptual Data Models for Engineering Information Modeling and Formal Transformation of EER and EXPRESS-G," *ER2003 industrial abstract publication*, Chicago, October 2003.

S. Lu, Y. Sun, M. Atay, F. Fotouhi, "A New Inlining Algorithm for Mapping XML DTDs to Relational Schemas," *Proceedings of the 1st International Workshop on XML Schema and Data Management (XSDM'03)*, *Lecture Notes in Computer Science*, Vol. 2814, Chicago, October 2003, pp. 250-260

S. Lu, Y. Sun, M. Atay, F. Fotouhi, "A Sufficient and Necessary Condition for the Consistency of XML DTDs," *Proceedings of the 1st International Workshop on XML Schema and Data Management (XSDM'03)*, *Lecture Notes in Computer Science*, Chicago, October 2003, pp. 366-377

X. Li, W. Grosky, and F. Fotouhi, "Determining Region Borders," *Proceedings of 4th International Workshop on Multimedia Data Mining, ACM SIGKDD 2003*, Washington DC, August 2003.

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D.V. Sreenath, W. Grosky, F. Fotouhi, "Emergent Semantics in a Linked Multimedia Document Collection," to appear in the Proceedings of *ACM SIGIR, Workshop on Implicit Measures*, Toronto, Canada, August 2003.

M. Truta, F. Fotouhi, D. Barth-Jones, "Privacy and Confidentiality Management for the Microaggregation Disclosure Control Method," Proceedings of the Workshop on Privacy and Electronic Society (WPES2003), In Conjunction with 10th ACM CCS, Washington DC, 2003, pp. 21 – 30

D.V. Sreenath, W. Grosky, and F. Fotouhi, "Content-Based Navigational Querying," *Proceedings of the 28th International Conference on Information and Communication Technologies and Programming, Session on Multimedia Semantics*, Varna Bulgaria, June 2003, pp. 128-134

X. Li, W. Grosky, and F. Fotouhi, "Determining Region Semantics," *proceedings of the 28th International Conference on Information and Communication Technologies and Programming, Session on Multimedia Semantics*, Varna Bulgaria, June 2003, pp. 121-127

M. Truta, F. Fotouhi, D. Barth-Jones, "Disclosure Risk Measures for Microdata," *Proceedings of Statistical and Scientific Databases, SSDBM2003*, July 2003, pp. 15-22

M.-R. Siadat, H. Soltanian-Zadeh, F. Fotouhi, K. Elisevich, "Multi-modality Medical Image Database for Temporal Lobe Epilepsy," (*PACS and Integrated Medical Information Systems: Design & Evaluation, at Medical Imaging 2003*) *SPIE*, vol. 5033, pp. 487-498, 2003. Honorable mention award winner of the conference.

D.V. Sreenath, W. Grosky, F. Fotouhi, "Emergent Semantics from Users' Browsing Paths," *Proceedings of NSF/NIJ, Symposium on Intelligence and Security Informatics*, June 2003, pp. 355-357

M. Siadat, H. Soltanian-Zadeh, F. Fotouhi, K. Elisevich, "Multimedia human brain database system for surgical candidacy determination in temporal lobe epilepsy with content-based image retrieval," *Proceeding of SPIE (Storage and Retrieval for Media Databases 2003 conference at IS&T/SPIE Electronic Imaging 2003)*, vol. 5021, pp. 417-428, Santa Clara, CA, Jan. 2003.

M. Siadat, H. Soltanian-Zadeh, F. Fotouhi, K. Elisevich, "Multi-modality Medical Image Database for Temporal Lobe Epilepsy," *PACS and Integrated Medical Information Systems: Design & Evaluation, at SPIE Medical Imaging 2003, San Diego, CA, Feb. 15-20, 2003*

D. Hwang, F. Fotouhi, R. Finley, W. Grosky, "Predictive Model for Yeast Protein Function using Modular Neural Approach," *Proceedings of 3rd IEEE Symposium on Bioinformatics and BioEngineering*, March 2003, pp. 436-440

M. Johnson, F. Fotouhi, S. Draghici M. Dong, "Enhancing Query-by-Structure Neural Network Net Approach," *Proceedings of Workshop on Multimedia Semantics in conjunction with SOFSEM*, November 2002.

P. Stanchev, F. Fotouhi, "Medical Multimedia and Multimodality Databases System," *invited session, Content- and Semantic-Based Information Retrieval in conjunction with 6th World Multiconference on Systemics, Cybernetics and Informatics (SCI'02)*, Orlando, FL, July 14-18, 2002.

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TEACHING

Undergraduate Courses

Introductory Computer Science Courses (CS1 and CS2)
Data and File Structures
C and C++

Graduate Courses

Database Management Systems
Distributed Databases
Object-Oriented Databases
Information Systems
Principles of Web Technology
Software Engineering
Theory of Computation
Analysis of Algorithms
Algorithms and Data Structures

GRADUATE STUDENT SUPERVISION

Ph.D. Dissertations

- Jingkai Yu, in progress
- Manjeet Rege, in progress
- Rajeev Agrawal, in progress
- Farhad Karimi-Mostowfi, in progress
- Youngju Son, in progress
- Kourosh Jafari, in progress (Co-Advisor: Hamid Soltanian-Zadeh, Henry Ford Health System)
- Xin Li, completed prospectus in December 2002. Research in progress. (Co-Advisor: William Grosky, University of Michigan, Dearborn)
- Hua Yan, "Techniques on Improving LSI Text Retrieval", completed prospectus in January 2003, (Co-Advisor: William Grosky, University of Michigan, Dearborn)
- Jinsong Wang, in progress (CoAdvisor: William Grosky, University of Michigan, Dearborn)
- Marius Truta, "Adaptive Disclosure Control for Healthcare Microdata," May 2004.
- Mohammadreza Siadat, "Human Brain Segmentation and Analysis," January 2005.
- DV Sreenath, "Deriving Emergent Semantics from Web Browsing Paths," (Co-Advisors: William Grosky, University of Michigan, Dearborn), December, 2003
- Michael Johnson, "Discovering Document Semantics - QBYS: A System for Querying the WWW by Semantics," March 2003.
- Dooseoung, Hwang, "Computational Meta-Analysis of Protein Interaction Data," January 2003.
- George Schleis, "The Reference Neuron Model of Memory: Explorations of its Capabilities ", December 2001.
- Augustine Ikeji, "The Optimal Computation of Partial Query Results (PQR)," December 1999.
- Amer F. Al-Badarnah, " The SBS: An Efficient Index Structure for Spatial Database Applications," December 1999.
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- Abad A. Shah, "TOS: A Temporal Object System," August, 1992.
- Tae-Gong Lee, "Generalized Index for Query Optimization in Object-Oriented Database Systems," March 1991.

Master Theses

- Yan Jin, "Internet Information Retrieval by Personalized Information Discovery – Two-Stage Model," December 2003.
- Yelena Grishpun, "Query Optimization for Mediators," May 2003.
- Yan Sun, "A Probabilistic Algorithm to Detect Sequence Motifs in Genomic Sequences," April 2003.
- Wu Ding, "Web Querying on Geographical Information Systems," June 2001.
- Colette Jacobsen, "Developing Web3D-Database Interfaces Using an Architectural-Based Design Method," April 2001.
- Susan Kaugher, "Data Visualization Utilizing IQ-VRI and IDL," December 1999.
- Karthekeyan Ramachandren, "3D Interface to Databases with an Iconic Querying Interface," May 1999.
- Aashima Narula, "A Distributed Web-Based Virtual Reality Interface to Relational Database Systems," July 1997.
- Nitán Jadhav, "VToD: VRMLto Database Link," June 1997.
- Ronald J. Jachim Jr., "A Graphical User Interface for Expressing Fuzzy Queries," August 1996.
- Michael Bernardo, "Optimizing Cyclic Queries in Object-Oriented Databases," April 1996.
- Jason Tung, "DRS - A Dynamic Reporting System for Federated Databases," March 1996.
- Mahesh K. Jain, "Fuzzy Query Processing Using Neural Networks," April 1996.
- Rana Chander, "An Efficient Restructuring of Hypertext Graphs Using Dynamic Construction of Links," December 1995.
- Syed Fawad Hasan, "Real-Time Error Detection in the Automated Vehicle Weighing System," December 1994.
- Chandramouli Vasudevan, "Comparison of Physical Storage Models for Object-Oriented Databases," March 1993.
- Paul Anye Tuma, "Implementing Historical Aggregates in TEMPIS," November 1992.
- Qian Yang, "Algorithms for Temporal Union Joins in Temporal Databases," April 1992.
- Terry Niner, "An Intelligent Hypertext Interface to Database Systems," March 1991.
- David Chen, "A Dynamic Hash-Based Join Algorithm for a Hypercube Multicomputer," March 1991.
- Carlos E. Galarce, "Adaptive Systems and the Search for Optimal Index Selection," October 1990.
- Rahul V. Tikekar, "Optimal Ordering of Integrity Assertions for Maintaining Semantic Integrity of Databases," August 1990.
- Jason Leigh, "Optimal Parallel Scheduling of M-Way Join Queries," July 1990.
- Kyusuk Chung, "High Availability and Consistency of Data in a Partitioned Distributed Database System," April 1990.
- Andrew Johnson, "A Parallel Hash-Based Algorithm for Computing the Transitive Closure of Database Relations," February 1990.

PROFESSIONAL SERVICES

Member of the Editorial Advisory Board of the *Journal of Database Management* (1992-2002)
Member, Program Committee, IEEE Scientific and Statistical Database Management, 2004
Member, Program Committee, 2004 Workshop on EC-Web 2004, in Conjunction with DEXA 2004.
Member, Program Committee, SAC 2004 - The 19th ACM Symposium on Applied Computing, special track on database theory, technology, and applications, 2004

Farshad Fotouhi

Member, Scientific Program Committee, IADIS International Conference e-Society 2003 and 2004, Lisbon, Portugal
NSF-NSDL Panelist, 2002
Member of Executive Board of MultiMedia Annotation Consortium (MMAC)
Member, Program Committee, 2002 Workshop on Internet Data Management, a track in the 8th International Conference on Parallel and Distributed Systems (ICPADS'2002)
Member, Program Committee, 29th Annual Conference on Current Trends in Theory and Practice of Informatics, 2002
Member, Program Committee, Workshop on Multimedia Semantics, SOFSEM 2002.
Member, Program Committee, 2002 Workshop on EC-Web 2002, in Conjunction with DEXA 2002.
Member, Program Committee, 2001 ACS International Conference on Computer Systems and Applications, 2001, Beirut, Lebanon
Program Co-Chair of International Forum on Image & Multimedia Processing 2000; Grand Award Judge for the 2000 Intel International Science and Engineering Fair (ISEF); NSF-ITR Panelist, 1999; Member, Program Committee, 2000 Workshop on Internet Data Management, a track in the 7th International Conference on Parallel and Distributed Systems (ICPADS'2000); Member, Program Committee, 2001 ACS International Conference on Computer Systems and Applications, 2001, Beirut, Lebanon; Member, Program Committee, 2000 Workshop on EC-Web 2000, in Conjunction with DEXA 2000; Member, Program Committee, 1999 Workshop on International Workshop on Web Data Management, DEXA'99 Conference; Member, Program Committee, 1999 ACM Web Information Data Management (WIDM'99), CIKM Conference; Member, Program Committee, 1998 International Forum for Multimedia and Image Processing, 1996 IEEE Data Engineering Conference, and 1992 -1995 Phoenix Conference on Computers and Communications ; NSF Panelist, 1994

University/Departmental Services

Chaired the Faculty Search Committee,
Chaired the department Graduate Committee,
Chaired the department Undergraduate Committee,
Member of the Graduate Council (Sept. 2002-present)
Member of the Academic Senate Research Committee (2003-2004)
Member of the Center and Institute Advisory Committee (2002-2005)
Member of Institute for Scientific Computing Graduate Committee (Sept. 2001-present)
Member of IGERT Directors Committee (Sept. 2001-present)
Member of Equipment Committee (1990 - Sept. 92)
Member of Personnel and Salary Committee (Sept. 90 - Jan. 91, Oct. 91- August 92, Sept. 96-2000)
Member of the Chair Search Committee
ACM Student Chapter Faculty Representative (1990 - Jan. 1992)
Member of the College of Science Faculty Council (1999-present)
Member of the College of Science Salary Committee (1998-1999)
Member of the CS/ECE joint committee for Computing and Information Technology (1999)
Member of the e-Commerce Committee (1999-present)
Member of the Curriculum Focus Group of the College of Science Strategic Planning (December 1999)
Member of the Educational Development Grant Selection Committee (1999)
Member of Technology Fee Advisory Committee (1999)
Member of the College of Science Election Committee (1996-1997)
Member of the College of Science Teaching Portfolio Committee (1996-1997, 1999)
Member of the Scholarships and Fellowships Review Panel (1996, 1998)
Member of task Force on Medical Informatics (1990 - 1991)