

Curriculum Vitae

Name: Huan Liu
Title: Professor
Address: Computer Science & Engineering
Arizona State University
Tempe, AZ 85287-8809
URL: www.public.asu.edu/~huanliu
Tel(O): (480) 727 7349
Fax(O): (480) 965 2751
E-mail: huan.liu@asu.edu

EDUCATION

Ph.D. (Computer Science) University of Southern California (1989)
M.Sc. (Computer Science) University of Southern California (1985)
B.Eng. (Computer Science and Engineering) Shanghai JiaoTong University, China (1983)

PROFESSIONAL EXPERIENCE

Professor/Associate Professor, 1/00 to Present

Computer Science & Engineering, SCIDSE/SCI, Arizona State University, Tempe, AZ 85287.

ASEE AFFP Fellow, 6/07 to 8/07 AFRL, Rome, NY 13441.

Consultant, 6/05 to 8/05 AOL, Dulles, VA 20166.

Faculty Fellow, 7/00 to 8/00 Human Interface Lab, Motorola Labs, Tempe, AZ 85284.

Associate Professor/Senior/Lecturer, 1/99, 1/96, 1/94 to 10/00, *tenured*
School of Computing, National University of Singapore, Singapore 119260.

Project Leader, 6/92 to 1/94 and Senior/Scientist, 11/89 to 1/94
Artificial Intelligence Systems Section, Customer Services and Systems Branch
Telstra Research Laboratories, 770 Blackburn Road, Clayton, Vic 3168, Australia.

RESEARCH INTERESTS

- Feature Selection and Extraction, Subspace Clustering
- Social Computing, Mining Social-Media Data, Searching for “Familiar Strangers”
- Group Profiling and Interactions, Taxonomy Adaptation, Text Categorization, C
- Multi-Source Data Integration, Model Selection, Machine Learning, AI
- Data Mining, Web Mining, Data Collection, Data Preprocessing
- Real-world applications with massive data

One of the 41 ACM *Distinguished Scientists* for Computing Innovations named by ACM in 2010

The *Best Researcher (Senior Faculty) Award (2010)*, School of Computing, Informatics, and Decision Systems Engineering, Arizona State University, May, 2011.

The *Most Influential Paper Award (2010)* of PAKDD for the paper of “Feature Selection for Clustering” by M. Dash and H. Liu, published in the proceedings of PAKDD 2000.

The Researcher of the Year Award (2008), Department of Computer Science & Engineering, School of Computing and Informatics, Arizona State University, April 2009.

TEACHING EXPERIENCE

The Teacher of the Year Award, Department of Computer Science & Engineering, Arizona State University, April 2005.

- *Social Computing and Web Analytics (CSE494/598, ASU) (created in 2008)*
- *Introduction to AI (CSE 471/598, ASU)*
- *Computing Ethics (CSE 301, ASU)*
- *Introduction to Data Mining (CSE 494, ASU) (created in 2003 with an NSF grant)*
- *Data Mining (CSE 572, ASU) (created in 2000)*
- *Concepts of Computing (CSE 200, ASU)*
- *Machine Learning and Neural Networks (CSE 3244, NUS) (created in 1995)*
- *Algorithms and Data Structures (IC 2101, NUS)*
- *Advanced Topics: Data Mining and Data Warehousing (IC 52c2, NUS)*
- *Introduction to Artificial Intelligence (CS 205A, NUS)*

The largest number of students in a class: ~500 students at NUS, and ~90 students at ASU.

POST-DOCTOR SCIENTISTS

1. *Dr. Sai Moturu, Fall 2009 - Summer 2010*
2. *Dr. Gabriel Fung, Spring 2010 - Fall 2010*

SUPERVISION of Ph.D. STUDENTS

1. *Geoffrey Barbier, Information Provenance in Social Media, Fall 2011, AFRL.*
2. *Lei Tang, Learning with Large Scale Social Media Networks, Summer 2010, Yahoo!Labs.*
3. *Zheng Zhao, Spectral Feature Selection, Summer 2010, SAS.*
4. *Nitin Agarwal, Social Computing on Blogosphere, Summer 2009, University of Arkansas at Little Rock, Assistant Professor.*
5. *Sai Moturu, Quantifying the Trustworthiness of User-Generated Social Media Content, Summer 2009, Media Lab, MIT.*
6. *Lei Yu, Redundancy-based Feature Selection for High-Dimensional and Application in Bioinformatics, Summer 2005, SUNY Binghamton, Assistant Professor.*
7. *Manoranjan Dash, Efficient Clustering for Knowledge Discovery in Large High-Dimensional Databases, June 2002, Nanyang Technological University, Assistant Professor.*

8. Magdiel Galan, *Mining Stream Data, Thesis Proposal Defense in Fall 2008, plan to graduate in 2012.*
9. Steven Day, *Multi-database Integration and Mining, in progress.*
10. Somnath Shahapurkar, *Unsupervised Feature Selection and Clustering, in progress.*
11. Xufei Wang, *Fall 2008, Web and Text Mining, in progress.*
12. Reza Zafarani, *Summer 2009, Mining across Social Media*
13. Salem Alelyani, *Summer 2009, Feature Selection*
14. Ali Abbasi, *Fall 2009, Comparative Social Computing*
15. Huiji Gao, *Fall 2009, Social Media and Computing*
16. Shamanth Kumar, *Spring 2010, Comparative Mining in Blogosphere*
17. Jiliang Tang, *Fall 2010*
18. Xia Ben Hu, *Fall 2010*
19. Pritam Gundecha, *Spring 2011*

SUPERVISION of MASTER'S STUDENTS

1. Aneeth Anand, *Feature Selection for Multi-Source Data, in progress.*
2. William Cole, *Opinion Mining, in progress.*
3. Gayathri Varadarajan, *Collective Computation based Data Mining for Prognostics and Health Management, Fall 2010.*
4. Shamanth Kumar, *Comparative Mining in Blogosphere, (status changed to Ph.D.)*
5. Shankara Bhargav Subramanya, *View Completion using Multi-Source Data, graduated July 2008, Amazon.*
6. Sanjay Sundararajan, *(MCS) Analysis of Group Interaction on Blogosphere, graduated Spring 2008, Progressive.*
7. Payam Refaeilzadeh, *Semi-supervised Feature Selection, graduated Spring 2007, Microsoft Redmond.*
8. Ashutosh Tiwari, *(MCS), Clustering of Stream Data, graduated Spring 2007.*
9. Niyati Parikh, *Event Detection from Heterogeneous Data in Sensor Networks, Fall 2006.*
10. Lance Parsons, *Integrated Learning from Microarrays - Discovering Subtypes of Glioblastoma, Fall 2006.*
11. Surendra Singhi, *Selection Bias in Machine Learning, graduated Fall 2005.*
12. Magdiel Galan, *(MCS) Instance Selection for Stream Data, Summer 2005, continued in ASU Ph.D. program.*

13. *Ehtesham Haque, Subspace Search for Web Mining Applications, Fall 2004*
14. *Srihari Venkatesan, Intelligent Driving Data Analysis, Fall 2004, Yahoo!*
15. *Jigar Mody, Selective Voting for Ensemble Methods, Spring 2004, Microsoft Redmond.*
16. *Amit Mandivikar, Active Learning for Image Mining, Fall 2003, Microsoft Redmond.*
17. *Deepak Kolippakkam, View Validation for Image Mining, Fall 2003, Roskamp Institute (Bioinformatics).*
18. *Snehal Kundalkar, (MCS) Intelligent Data Extraction, Fall 2003.*
19. *Reshma Suvarna, Using Meta Data and Namespaces in Data Mining, Spring 2003, HP.*
20. *Jianhua Han, (MCS) Meta Data and RDF in Data Mining, Spring 2002*
21. *Dimuthu Prasanna Makawita, Sampling from Databases Using B^+ Trees, 2000.*
22. *Kian Sing Ng, Real World Applications of Data Mining, 1999.*
23. *Ying Lu, On Multivariate Discretization, 1999.*
24. *Jun Yao, Process View of KDD: Techniques for Multiple Stages of KDD, 1998.*
25. *Manoranjan Dash, Feature Selection - A Preprocessing Step in Data Mining Graduated, 1998.*

Also served on numerous PhD and MS thesis committees, and as an external Ph.D. and Master's thesis reviewer for universities in Australia, Hong Kong, and Singapore.

SUPERVISION of UNDERGRADUATE STUDENTS

1. *Patrick Mcinerney, Honors Project, Intelligent Data Collection, Fall 2010 -*
2. *Fred Morstatter, Feature Selection Software Package, CRA Outstanding Undergraduate Researchers Award (Honorable Mention, 2010), Fall 2009 -*
3. *Patrick Krecker, Honors Project, Social Media Study, Fall 2009 - Spring 2010*
4. *David Weber, Honors Project, Identifying Communities in Disguise, co-supervisor, 2008.*
5. *Daniel Casey, student research project, Adaptive Stream Sampling for Sensors, Spring 2005.*
6. *Andrew B. Call, project, Case Study in Data Warehousing, Spring 2004.*
7. *Robert Fitzgerald, Honors Project (incomplete An Examination of of Selection Bias in Machine Learning, 2003.*
8. *Bret Ehlert, Honors Project, Active Feature Selection, Fall 2000.*
9. *Jian Shu, Honors Thesis, Feature Discretization and Evaluation, 1998.*
10. *Yin Yin Chong, Honors Thesis, Feature Selection Techniques and Visual Aids, 1995.*
11. *Boon Poh Lee, Honors Thesis, An Active Planner in Multi-Media Environment, 1995.*

GRANTS AND PROJECTS

- *Assessing Trustworthiness in Social Media: A Social Computing Approach*, ARO (025071), 11/01/2011 - 10/31/2014. \$374,978.
- *CPS:Medium: GoingEasy with Crowdsourcing - Building Cyber-Physical Systems for People with Visual Impairment*, NSF (1135616), 10/01/2011 - 09/30/2015, \$1,000,000, Co-PI, 30% (PI: Baoxin Li).
- *The Role of Social Media in Trusted Collaboration for Disaster Relief*, ONR (N000141110527), PI, 03/01/2011 - 12/31/2012, \$359,933.
- *NSF Conference Sponsorship for the Third International Conference on Social Computing, Behavioral Modeling, and Prediction*, NSF (1019597), PI, 04/01/2010 - 03/31/11, \$7,500, 100%.
- *BlogTrackers: Analyzing Social Media for Cultural Modeling*, ONR (N000141010091), PI, 01/01/2010 - 09/30/2013, \$419,739.
- *III-Medium: A Machine Learning Approach to Computational Understanding of Skill Criteria in Surgical Training*, NSF (001319), 07/15/2009 - 06/30/2013, \$874,484, co-PI, 30% (PI: Baoxin Li).
- *Developing Cultural Analysis and Sociological Network Theory for Understanding Virtual Communities, Collaborative Project, University of Hawaii/AFOSR*, PI, 01/01/2009 - 11/30/2011, \$480,983, 100%.
- *Online Social Behaviors and Prediction of their Implications for the Physical World: A Comparative Study, Part 1*, 06/01/2009 - 07/31/2011, Collaborative Project, University of Hawaii/ONR, PI, \$259,144, 100%.
- *NSF REU Grant for III-COR-Small: Beyond Feature Selection and Extraction - An Integrated Framework for High-Dimensional Data of Small Labeled Samples*, NSF, IIS (0936275), PI, 4/29/2009 -. \$16,000, 50%.
- *DHS COE in Border Security and Immigration - Effective Reduction of High False Alarm Rates*, (University of Arizona is the lead institute), 7/1/2008 - 6/30/2011.
- *Second International Workshop on Social Computing, Behavioral Modeling, and Prediction. HHS-NIH-NIGMS-National Institute of General Medical Sciences (R13GM087995)*, PI, 3/16/09 - 3/15/10, \$12,000, 100%.
- *Conference Sponsorship: Second International Workshop on Social Computing, Behavioral Modeling, and Prediction*, ONR, PI, 12/01/2008 - 05/30/2009, \$5,000, 100%.
- *NSF Workshop Sponsorship for the Second International Workshop on Social Computing, Behavioral Modeling, and Prediction*, NSF, 01/15/009 - 12/31/2009, \$2,000, 100%.
- *A Collective-Computation Approach to Prognostics Health Management*, NASA, PI, 09/01/2008 - 08/31/2009, \$200,000, 34%
- *III-COR-Small: Beyond Feature Selection and Extraction - An Integrated Framework for High-Dimensional Data of Small Labeled Samples*, NSF, PI, 8/2008 - 7/2011, \$430,626, 50%
- *Modeling Group Interaction via Open Data Sources*, AFOSR, PI, 3/2008 - 2/2011, \$459,510, 100%.

- *BlogTrackers: Combining Domain Knowledge and Novel Search Capabilities for Assessing Political Risks*, ONR, 1/2008 - 10/2009, \$186,000, 70%.
- *Link Mining of Textual Data*, MITRE, PI, 9/2007-8/2008, \$50,000, 100%.
- *DeepSearch for Modeling Group Interaction Using Open Data Sources*, Air Force Research Labs, PI, 8/2007 - 12/2007, \$26,000, 100%.
- *Enhanced Data Accessibility Using Web Services Technology*, Arizona Water Institute, Co-PI, (PI: Kyle Carpenter), 1/2007 - 12/2007. \$50,000, 10%.
- *Environmental and Economic Impacts of Material Used in Future Urban Development*, Co-PI, (PI: John Crittenden), 4/2007 - 3/2008, \$400,000, Arizona Science Foundation, 6%.
- *Enabling the Study of Long-Term Human and Social Dynamics*, NSF (BTS 0022), Co-PI, (PI: Keith Kintigh), 9/2004 - 8/2005, \$100,000, 5%.
- *Modeling Driving Data*, Motorola, PI, 5/2004 - 8/2004, \$13,605, 100%.
- *Synthesis of Streaming Data from Multiple Sensors via Embedded Data Extraction*, CEINT, PI, 1/2004 - 8/2005, \$52,102, 100%.
- *MEASURES: A Proof of Concept Demonstration (Multi-scale Environmental Analysis in Urban and Regional Ecosystems)*, Senior Personnel, (PI: H.J. Fernando), NSF, 8/15/04 to 7/14/05, \$100,000, 30%.
- *ET-13: Enabling Technologies for Intelligent Information Integration*, Co-PI, (PI: Subbarao Kambhpati), ASU-AZ, 6/2003 - 7/2005, \$200,000, 20%.
- *Intelligent Driving Data Analysis*, Motorola, PI, 1/2003 - 12/2003, \$19,549, 100%.
- *A Collaborative Project: Development of An Undergraduate Data Mining Course*, NSF (DUE: 0231448), PI, 1/2003 - 12/2004, \$52,720, 100%.
- *Intelligent Data Extraction in an Automobile Environment*, IMES/FORD, PI, 9/2002 - 8/2003, \$27,000, 100%.
- *Toward a Unified Taxonomy for Feature Selection*, NSF (IIS: 0127815), PI, 8/2001 - 7/2002, \$54,999, 100%.
- *A Data Mining Approach for Detecting Egeria in Digital Imagery*, SFSU, PI, 1/2002 - 12/2003, \$101,918, 100%.

The following projects were conducted at National University of Singapore.

- *Integrated Machine Learning Workbench for Data Mining*, Japan Ministry of Education, PI (at NUS), (PI at Osaka University: Hiroshi Motoda), 1999 - 2001, about US\$100,000.
- *Program of Research in Intelligent Systems*, National Science and Technology Board and Ministry of Education of Singapore, Associate Director and Co-PI, (PI: Tat-Seng Chua, Co-PI: Chris Marshall), 1998 - 2000, S\$3M.
- *Data Mining and Intelligent Data Analysis*, National Science and Technology Board and Academic Research Council of Singapore, PI, S\$70,000, 1998-1999.

- *Knowledge Discovery in Gifted Education Program, Academic Research Council of Singapore in collaboration with Singapore Ministry of Education, Co-PI, (PI: Chew-Lim Tan), S\$161,700, 1998-2000.*
- *A Unified Approach to Data Mining. Academic Research Council, PI, 1997-1998, S\$65,000.*
- *A Comprehensive Computer System for Data Discretization. National Computer Board and Academic Research Council, PI, 1995-1996, S\$68,000.*
- *An Automated Tool for Knowledge Acquisition. Academic Research Council, PI, 1994 - 1995, S\$ 70,000.*

PUBLICATIONS

AUTHORED AND EDITED BOOKS

1. *“Spectral Feature Selection for Data Mining”, Zheng Alan Zhao and Huan Liu, 2012, Chapman and Hall/CRC Press.*
2. *“Community Detection and Mining in Social Media”, Lei Tang and Huan Liu, 2010, Morgan & Claypool Publishers.*
3. *“Modeling and Data Mining in Blogosphere”, Nitin Agarwal and Huan Liu, 2009, Morgan & Claypool Publishers.*
4. *“Social Computing and Behavioral Modeling”, edited, Huan Liu, John Salerno, and Michael Young, 2009, Springer, USA.*
5. *“Proceedings of the 2009 SIAM International Conference on Data Mining”, edited, H. Park, P. Srinivasan, H. Liu, and Z. Obradovic, 2009, Society for Industrial and Applied Mathematics, USA.*
6. *“Social Computing, Behavioral Modeling, and Prediction”, edited, Huan Liu, John Salerno, and Michael Young, 2008, Springer, USA.*
7. *“Computational Methods of Feature Selection”, edited, Huan Liu and Hiroshi Motoda, 2008, Chapman and Hall/CRC Press.*
8. *“Advances in Knowledge Discovery and Data Mining”, the 9th Pacific-Asia Conference, PAKDD 2005, Hanoi, Vietnam, May 18-20, 2005, Proceedings. Series: Lecture Notes in Computer Science, Subseries: Lecture Notes in Artificial Intelligence, Vol. 3518. Ho, Tu Bao; Cheung, David; Liu, Huan (Eds.) Springer Verlag.*
9. *“Instance Selection and Construction for Data Mining”, edited, (with H. Motoda), February 2001, Kluwer Academic Publishers.*
10. *“Knowledge Discovery and Data Mining - Current Issues and New Applications”, Proceedings of the 4th Pacific-Asia Conference on Knowledge Discovery and Data Mining, edited, (with T. Terano, A.L.P. Chen), April 2000, Springer Verlag.*
11. *“Feature Selection for Knowledge Discovery and Data Mining”, (with Hiroshi Motoda), July 1998. Kluwer Academic Publishers.*

12. "Feature Extraction, Construction and Selection: A Data Mining Perspective", edited, (with Hiroshi Motoda), July 1998, Kluwer Academic Publishers. 2nd Printing, 2001.
13. "KDD: Techniques and Applications", Proceedings of the 1st Pacific-Asia Conference on Knowledge Discovery and Data Mining, edited, (with Hongjun Lu and Hiroshi Motoda), 23-24 February, 1997, Singapore. World Scientific.
14. "Proceedings of the 6th Australian Joint Conference on Artificial Intelligence", edited, (with Chris Rowles and Norman Foo), 16-19 November, 1993, Melbourne, Australia. World Scientific.

JOURNAL PUBLICATIONS

1. Nitin Agarwal, Huan Liu, Lei Tang, and Philip Yu. "Modeling Blogger Influence in a Community", *Social Network Analysis and Mining*, Springer, forthcoming.
2. Zheng Zhao, Lei Wang, Huan Liu, and Jieping Ye. "On Similarity Preserving Feature Selection", *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, forthcoming.
3. Lei Tang, Xufei Wang, and Huan Liu. "Group Profiling for Understanding Social Structures", *ACM Transactions on Intelligent Systems and Technology (TIST)*, forthcoming.
4. Lei Tang, Xufei Wang and Huan Liu. "Scalable Learning of Collective Behavior". *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, forthcoming.
5. Lei Tang, Xufei Wang, and Huan Liu. "Community Detection via Heterogeneous Interaction Analysis", *Data Mining and Knowledge Discovery*, Springer. August, 2011. DOI: 10.1007/s10618-011-0231-0.
6. L. Tang, H. Liu and J. Zhang. "Identifying Evolving Groups in Dynamic Multi-Mode Networks". *Transactions on Knowledge and Data Engineering (TKDE)*, forthcoming.
7. Geoffrey Barbier, Lei Tang and Huan Liu. "Understanding Online Groups through Social Media". *WIREs Data Mining and Knowledge Discovery*, May 20, 2011.
8. N. Yagnik, H. Liu, and H.J.S. Fernando. "Sensor Networks: Decentralized Monitoring and Subspace Classification of Events", *Special Issue on Novel Applications of Machine Learning, International Journal of General Systems*, Taylor & Francis, Volume 40 Issue 4, 457. May 4, 2011. doi:10.1080/03081079.2010.544882
9. Lei Tang, and Huan Liu. "Leveraging Social Media Networks for Classification". *Journal of Data Mining and Knowledge Discovery (DMKD)*, DOI: 10.1007/s10618-010-0210-x, January 14, 2011.
10. Sai Moturu and Huan Liu. "Quantifying the Trustworthiness of Social Media Content", *Journal of Distributed and Parallel Databases*, Springer, Volume 29, January 4, 2011. DOI: 10.1007/s10619-010-7077-0.
11. L. Tang and H. Liu. "Toward Collective Behavior Prediction via Social Dimension Extraction". *IEEE Intelligent Systems*, vol.25, no.4, pp.19-25, July-Aug. 2010.
12. N. Agarwal, M. Galan, H. Liu, and S. Subramanya. "WisColl: Collective Wisdom based Blog Clustering". *Journal of Information Science: Special Issue on Collective Intelligence (INS-CI)*, 180(1):39-61. 2010.

13. Z. Zhao and H. Liu. "Searching for Interacting Features in Subset Selection", *Intelligent Data Analysis - An International Journal*, 13(2): 207 -228, 2009.
14. S. Moturu, W. Johnson, and H. Liu. "Predictive Risk Modeling for Forecasting High-Cost Patients: a Real-World Application Using Medicaid Data", *International Journal of Biomedical Engineering and Technology, Special Issue on Warehousing and Mining Complex Data: Applications to Biology, Medicine, Behavior, Health and Environment*, 3(1-2): 114-132, 2009.
15. S. Subramanya, Z. Wang, B. Li, and H. Liu. "Completing Missing Views for Multiple Sources of Web Media", *International Journal of Data Mining, Modeling and Management*, 1(1):23-44, 2008.
16. N. Agarwal and H. Liu, "Blogosphere: Research Issues, Applications, and Tools", *SIGKDD Explorations*, 10(1): 18-31, July 2008.
17. L. Tang, H. Liu, J. Zhang, N. Agarwal and J.J. Salerno. "Topic Taxonomy Adaptation for Group Profiling", *ACM Transactions on Knowledge Discovery from Data*, 1(4): 1-28, January 2008.
18. N. Agarwal, H. Liu, and J. Zhang. "Blocking Objectional Web Contents by Leveraging Multiple Information Sources". *SIGKDD Explorations*, 8(1): 17 - 26, June, 2006.
19. K.S. Candan, J.W. Kim, H. Liu, and R. Suvarna. "Discovering Mappings in Hierarchical Data from Multiple Sources Using the Inherent Structure". *The Knowledge and Information Systems Journal*, 10(2): 185-210, August, 2006.
20. N. Agarwal, E. Haque, H. Liu, and L. Parsons. "A Subspace Clustering Framework for Research Group Collaboration". *International Journal of Information Technology and Web Engineering*, 1(1): 35 - 58, January - March, 2006.
21. M. Berens, H. Liu, L. Parsons, L. Yu, and Z. Zhao. "Fostering Biological Relevance in Feature Selection for Microarray Data", *Trends and Controversies, IEEE Intelligent Systems*, 20(6): 71-73, November/December 2005.
22. H. Liu and L. Yu. "Toward Integrating Feature Selection Algorithms for Classification and Clustering", *IEEE Trans. on Knowledge and Data Engineering*, 17(4): 491 - 502, 2005.
23. L. Yu and H. Liu. "Efficient Feature Selection via Analysis of Relevance and Redundancy", *Journal of Machine Learning Research, JMLR 5 (Oct): 1205-1224, 2004.*
24. H. Liu, H. Motoda, and L. Yu. "A Selective Sampling Approach to Active Feature Selection", *Artificial Intelligence, Elsevier*, 159(1-2):49-74, 2004.
25. P. Foschi and H. Liu. "Active Learning for Detecting a Spectrally Variable Subject in Color Infrared Imagery", *Pattern Recognition Letters, Elsevier*, 25(13): 1509-1517, 2004.
26. L. Parson, E. Haque, and H. Liu. "Subspace Clustering for High Dimensional Data - A Review", *SIGKDD Explorations*, 6(1): 90 - 105, June 2004.
27. M. Dash and H. Liu. "Consistency-Based Search in Feature Selection", *Artificial Intelligence*. 151(1-2):155-176, December 2003.
28. D. Makawita, K-L. Tan, and H. Liu. "Sampling from Databases Using B+Trees", *Intelligent Data Analysis*, 6(4): 359-377, 2002.

29. M. Dash, H. Liu, P. Scheuermann, and K-L. Tan. "Fast Hierarchical Clustering and Its Validation", *Data and Knowledge Engineering, Elsevier Science*. 44(1):111-140. Dec, 2002
30. Z. Chen, F. Lin, H. Liu, W.Y. Ma, Liu Wenyin. "User Intention Modelling in Web Applications Using Data Mining", *World Wide Web - Internet and Web Information Systems Journal, Kluwer Academic Publishers*. 5(3):181-192. 2002
31. H. Liu, F. Hussain, C.L. Tan, and M. Dash. "Discretization: An Enabling Technique", *Journal of Data Mining and Knowledge Discovery* 6(4): 393-423; Oct 2002.
32. H. Liu and H. Motoda, "On Issues of Instance Selection", *Journal of Data Mining and Knowledge Discovery*. 6(2):115-130; Apr 2002.
33. Z. Zhou, H. Liu, S.Z. Li, and C.S. Chua. "Rule Mining with Prior Knowledge - A Belief Networks Approach", *Intelligent Data Analysis*, 5(2):95-110, 2001.
34. K.S. Candan, H. Liu, and R. Suvarna. "Resource Description Framework: Metadata and Its Applications", *SIGKDD Explorations*, July 2001. 3(1):6-19.
35. H. Liu, H. Lu, and J. Yao, "Towards Multidatabase Mining: Identifying Relevant Databases", *IEEE Transactions on Knowledge and Data Engineering*, 13(4):541-553. July/August 2001.
36. K.S. Ng and H. Liu. "Customer Retention via Data Mining", *AI Review, Kluwer Academic Publishers*. 14(6):569-590, 2001.
37. J. Yao, M. Dash, S.T. Tan and H. Liu. "Entropy-based Fuzzy Clustering and Fuzzy Modeling", *Fuzzy Sets and Systems - International Journal of Soft Computing and Intelligence, Official Publication of the International Fuzzy System Association*, 113:381-388, Elsevier, 2000.
38. R. Setiono and H. Liu. "A Connectionist Approach to Generating Oblique Decision Trees", *IEEE Transactions on Systems, Man, and Cybernetics (Part B: Cybernetics)*, Volume 29, Number 3, pp 440 - 444, June 1999.
39. H. Liu and R. Setiono. "Some Issues on Scalable Feature Selection", *Expert Systems with Application*, pp 333 - 339. Elsevier, Volume 15, 1998.
40. R. Setiono and H. Liu. "Incremental Feature Selection", *Applied Intelligence*, Volume 9, Number 3, November/December 1998. Kluwer Academic Publishers. Pages 217-230.
41. H. Liu and H. Motoda. "Feature Transformation and Subset Selection", *IEEE Intelligent Systems*, March/April 1998, Volume 13, Number 2, Pages 26-28.
42. R. Setiono and H. Liu. "Analysis of Hidden Representations by Greedy Clustering", *Connection Science*, Vol. 10, No. 1, 1998. Carfax. pages 21-42.
43. R. Setiono and H. Liu. "NeuroLinear: From Neural Networks to Oblique Decision Rules", *Neurocomputing, Elsevier*, Vol. 17, No. 1, September 1997, pages 1-25.
44. M. Dash and H. Liu. "Feature Selection for Classification", *Intelligent Data Analysis - An International Journal*, Vol. 1, No. 3, 1997. Elsevier.
45. R. Setiono and H. Liu. "Neural Network Feature Selector", *IEEE Trans. on Neural Networks*, Vol. 8, No. 3, May 1997, pp. 654-662.

46. H. Liu and R. Setiono. "Feature Selection via Discretization of Numeric Attributes", *IEEE Trans. on Knowledge and Data Engineering*, VOL.9, NO. 4, July/August 1997. pp. 642-645.
47. H. Lu, R. Setiono, and H. Liu. "Effective Data Mining Using Neural Networks", *IEEE Trans. on Knowledge and Data Engineering*, Vol. 8, No. 6, Dec. 1996, pp. 957-961.
48. H. Liu. "Efficient Rule Induction from Noisy Data", *Expert Systems with Applications: An International Journal*, Vol. 10, No. 2, 1996. Pergamon. pp. 275-280.
49. R. Setiono and H. Liu. "Symbolic Representation of Neural Networks", *IEEE Computer*, Mar. 1996, pp 71-77.
50. H. Liu and Setiono. "Dimensionality Reduction via Discretization", *Knowledge-Based Systems*, Vol. 9, No. 1, Feb. 1996. Elsevier. pp. 67-72.
51. R. Setiono and H. Liu. "Improving Backpropagation Learning with Feature Selection", *Applied Intelligence*, Kluwer Academic Publishers, 1996. pp 129-139.
52. H. Liu and W.X. Wen. "Supervised Learning for Self-Generating Neural Networks", *Australian Journal of Intelligent Information Processing Systems*. Vol. 2, No. 2, Winter 1995. pp 12-19.
53. H. Liu, C. Rowles and W. Wen. "Critics for Knowledge-Based Design Systems", *IEEE Transactions on Knowledge and Data Engineering*, Vol. 7, NO. 5, Oct. 1995. pp 740-750.
54. H. Liu and W.X. Wen. "Joint Concept Formation", *International Journal of Knowledge Acquisition*, Vol. 6, 1994. pp 75-87.
55. G.A. Bekey, H. Liu, R. Tomovic and W.J. Karplus. "Knowledge-Based Control of Grasping in Robot Hands Using Heuristics from Human Motor Skills", *IEEE Transactions on Robotics and Automation*, Vol.9, No.6, Dec. 1993. pp 709-722.
56. A. Jennings, H. Higuchi and H. Liu. "A Personal News Service based on a User Model Neural Network", *Australian Telecommunications Research*, Vol. 27, No.1, 1993. pp 1-12.
57. A. Jennings, C. Rowles, C. Leckie and H. Liu. "AI Applications in Telecommunications", *Telecommunications Journal of Australia*, Vol. 41, No. 1, 1991, Australia. pp 47-55.
58. H. Liu, T. Iberall and G.A. Bekey. "Neural Network Architecture for Robot Hand Control", *the IEEE Control Systems*, April 1989. pp 38-43.
59. K. Rao, H. Liu, G. Medioni and G.A. Bekey. "Shape Description and Grasping for Robot Hand and Eye Coordination", *the IEEE Control Systems*, Feb. 1989. pp 22-29.

BOOK CHAPTERS and ENCYCLOPEDIA ENTRIES

1. Xia Ben Hu and Huan Liu. "Text Analytics in Social Media", in *Mining Text Data*", Editor: Charu C. Aggawal and ChengXiang Zhai, Springer, Boston/Dordrecht/London, 2012.
2. Geoffrey Barbier and Huan Liu. "Data Mining in Social Media" in *Social Network Data Analytics*", Editor: Charu C. Aggawal, Springer, Boston/Dordrecht/London, March, 2011.
3. L. Tang and H. Liu. "Understanding Group Structures and Properties in Social Media", in *Link Mining: Models, Algorithms and Applications*, Editors: Christos Faloutsos, Jiawei Han, and Philip Yu. Springer. pp 163 - 185. 2010.

4. L. Tang and H. Liu. "Graph Mining and Applications to Social Network Analysis", in *Managing and Mining Graph Data*, Editors: Charu Aggarwal and Haixun Wang. Springer. 2010.
5. H. Liu. "Feature Selection: An Overview", *Encyclopedia of Machine Learning*. Claude Sammut and Geoffrey I. Webb (Ed.), Springer. September, 2010
6. H. Liu and Z. Zhao. "Manipulating Data and Dimension Reduction Methods: Feature Selection", *Encyclopedia of Complexity and System Science*, Springer, 2009.
7. N. Agarwal, H. Liu, J. Zhang. "A Study of Friendship Networks and Blogosphere", *Handbook of Research on Text and Web Mining Technologies*, Editors: M. Song and Y. Wu . Information Science Reference (an imprint of IGI Global). pp. 646-669, 2009.
8. N. Agarwal and H. Liu. "Trust on Blogosphere", in *Encyclopedia of Database Systems (EDBS). Part 20*, pp. 3187-3191. Editors: Ling Liu and M. Tamer zsu. SpringerLink. 2009.
9. P. Refaeilzadeh, L. Tang, and H. Liu. "Cross-Validation", in *Encyclopedia of Database Systems (EDBS)*, Editors: Ling Liu and M. Tamer zsu. Springer, pp6. 2009.
10. N. Agarwal, H. Liu, J.J. Salerno, P.S. Yu. "Searching for 'Familiar Strangers' on Blogosphere", *Next Generation of Data Mining Editors: Hillol Kargupta, Jiawei Han, Philip Yu, Rajeev Motwani, Vipin Kumar*, CRC Press, Chapman and Hall/CRC Press, pp 295 - 315, 2009.
11. M. Dash and H. Liu. "Dimensionality Reduction", in *Encyclopedia of Computer Science and Engineering*, John Wiley & Sons, Inc. Volume 2, pages 958-966. The ISBN for the 5-Volume set is 978-0-471-38393-2. Benjamin W. Wah, Editor, published in Hoboken, NJ, January 2009.
12. Z. Zhao and H. Liu. "On Interacting Features in Subset Selection", in *Encyclopedia of Data Warehousing and Mining, 2nd Edition*, Idea Group, Inc. pp 1079 – 1084, September, 2008.
13. L. Tang, H. Liu, and J. Zhang. "Taxonomy Adaptation for Hierarchical Content Categorization", in *Encyclopedia of Data Warehousing and Mining, 2nd Edition*, Idea Group, Inc. pp 178 – 182, September, 2008.
14. S. Moturu, L. Parsons, Z. Zhao, and H. Liu. "Integrative Data Analysis for Biological Discovery", in *Encyclopedia of Data Warehousing and Mining, 2nd Edition*, Idea Group, Inc. pp 1058 – 1065, September, 2008.
15. K.S. Candan, J.W. Kim, H. Liu, R. Swarna, and N. Agarwal. "Spatial Transformations for Identifying Mappings in Hierarchical Media Data", in *Multimedia Data Mining and Knowledge Discovery*, Editors: Valery A. Petrushin and Latifur Khan, Springer, 2006.
16. L. Yu and H. Liu. "Data Mining Methods for Microarray Data Analysis", in *Encyclopedia of Data Warehousing and Mining*, Editor: John Wang, Idea Group Inc. 2005.
17. H. Liu and L. Yu, "Instance Selection", in *Encyclopedia of Data Warehousing and Mining*, Editor: John Wang, Idea Group Inc. 2005.
18. H. Liu, A. Mandvikar, and P.G. Foschi. "An Active Learning Approach to Egeria densa Detection in Digital Imagery", *New Generation of Data Mining Applications*, IEEE/Wiley, 2005.

19. H. Liu, H. Motoda, and L. Yu. "Feature Extraction, Selection, and Construction", in *The Handbook of Data Mining*, Lawrence Erlbaum Associates, Inc. Publishers. Editor: N. Ye. PP 409 - 423. 2003.
20. "Feature Selection", (with Hiroshi Motoda), contribution to *Handbook of Data Mining and Knowledge Discovery*, Oxford University Press, New York. Editors: W. Klogsen and J. Zytkow. 2002.
21. "Feature Aggregation", (with Hiroshi Motoda), contribution to *Handbook of Data Mining and Knowledge Discovery*, Oxford University Press, New York. Editors: W. Klogsen and J. Zytkow. 2002.
22. "Data Reduction via Instance Selection", (with Hiroshi Motoda), in *Instance Selection and Construction for Data Mining*, Editors: H. Liu and H. Motoda, Kluwer Academic Publishers, Boston, USA, 2001.
23. "Sampling: Knowing Whole from Its Part", (with Baohua Gu and Feifang Hu), in *Instance Selection and Construction for Data Mining*, Editors: H. Liu and H. Motoda, Kluwer Academic Publishers, Boston, USA, 2001.
24. "Unsupervised Feature Ranking and Selection", (with Manoranjan Dash), in *Selected Aspects of Knowledge Discovery for Business Information Systems*. Editors: W. Abramowicz and J. Zurada, Kluwer Academic Publishers, Boston, USA, 2000.
25. "Less Is More", (with H. Motoda), in *Feature Extraction, Construction and Selection: A Data Mining Perspective*, Kluwer Academic Publishers, Boston, USA. Pages: 3 - 12. Editors: H. Liu and H. Motoda. July 1998.
26. "Feature Extraction via Neural Networks", (with R. Setiono), in *Feature Extraction, Construction and Selection: A Data Mining Perspective*, Kluwer Academic Publishers, Boston, USA. Pages: 191 - 204. Editors: H. Liu and H. Motoda. July 1998.
27. "A Family of Efficient Rule Generators", *Encyclopedia of Computer Science and Technology*, Volume 39, Marcel Dekker, Inc., New York. Editors: Allen Kent and James G. Williams. 1998.

CONFERENCE PUBLICATIONS

1. Jiliang Tang, Huiji Gao, and Huan Liu. "mTrust: Discerning Multi-Faceted Trust in a Connected World", the 5th ACM International Conference on Web Search and Data Mining (WSDM 2012), February 8-12, 2012. Seattle, Washington.
2. Xufei Wang, Jiliang Tang, and Huan Liu. "Document Clustering via Matrix Representation", the 11th IEEE International Conference on Data Mining (ICDM2011), December 11 - 14, 2011. Vancouver, Canada.
3. Salem Alelyani, Lei Wang, and Huan Liu. "The Effect of the Characteristics of the Dataset on the Selection Stability", the 23rd IEEE International Conference on Tools with Artificial Intelligence (ICTAI2011), November 7 - 9, 2011. Boca Raton, Florida.

4. Jose Augusto Andrade Filho, Andre Carlos Ponce De Leon Ferreira Carvalho, Rodrigo Fernandes Mello, Salem Alelyani and Huan Liu. "Quantifying Features Using False Nearest Neighbors: An Unsupervised Approach", the 23rd IEEE International Conference on Tools with Artificial Intelligence (ICTAI2011), November 7 - 9, 2011. Boca Raton, Florida.
5. Xia Hu, Lei Tang, and Huan Liu. "Enhancing Accessibility of Microblogging Messages Using Semantic Knowledge", the 20th ACM Conference on Information and Knowledge Management (CIKM2011), October 24-28, 2011. Glasgow, UK.
6. Xufei Wang, Huan Liu, and Wei Fan. "Connecting Users with Similar Interests via Tag Network Inference", the 20th ACM Conference on Information and Knowledge Management (CIKM2011), October 24-28, 2011. Glasgow, UK.
7. Pritam Gundecha, Geoffrey Barbier, and Huan Liu. "Exploiting Vulnerability to Secure User Privacy on a Social Networking Site", the 17th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2011), August 21-24, 2011, San Diego, CA.
8. Shamanth Kumar, Reza Zafarani, and Huan Liu. "Understanding User Migration Patterns in Social Media", the special track on AI and the Web (AIW) at the Twenty-Fifth AAAI Conference on Artificial Intelligence (AAAI-11). August 7 - 11, 2011, in San Francisco, CA.
9. Anirudh Kondaveeti, George Runger, Huan Liu and Jeremy Rowe. "Extracting Geographic Knowledge from Sensor Intervention Data Using Spatial Association Rules", the First IEEE International Conference on Spatial Data Mining and Geographical Knowledge Services (ICSDM 2011), June 28 - July 1, Fuzhou, China.
10. Huiji Gao, Xufei Wang, Geoffrey Barbier, and Huan Liu. Promoting Coordination for Disaster Relief - From Crowdsourcing to Coordination. The Fourth International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction, (SBP 2011): 197-204.
11. Geoffrey Barbier, and Huan Liu. Information Provenance in Social Media. The Fourth International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction, (SBP 2011): 276-283
12. Xufei Wang, Lei Tang, Huiji Gao, and Huan Liu. Discovering Overlapping Groups in Social Media. In Proceedings of The 10th IEEE International Conference on Data Mining (ICDM'10), 2010.
13. Zheng Zhao, Lei Wang, and Huan Liu. "Efficient Spectral Feature Selection with Minimum Redundancy". In Proceedings of the Twenty-Fourth AAAI Conference on Artificial Intelligence (AAAI), Atlanta, Georgia, USA, July 11-15, 2010.
14. Zheng Zhao, Jiangxin Wang, Shashvata Sharma, Nitin Agarwal, Huan Liu, and Yung Chang. "An Integrative Approach to Identifying Biologically Relevant Genes", SIAM International Conference on Data Mining (SDM'10), Columbus, Ohio. April 29 - May 1, 2010.
15. Shamanth Kumar, Nitin Agarwal, and Huan Liu. Towards Building a Social Computing Tool for Social Scientists. The 3rd International Conference on Human-centric Computing (HumanCom-10). August 11 - 13, 2010. Cebu, Philippines
16. Lei Tang, Geoffrey Barbier, Huan Liu and Jianping Zhang. "A Social Network Analysis Approach to Detecting Suspicious Online Financial Activities". In Proceedings of International Conference on Social Computing, Behavioral Modeling and Prediction (SBP10), pages 390-397, March 29 - April 1, 2010.

17. Shamanth Kumar, Reza Zafarani, Mohammad Ali Abbasi, Geoffrey Barbier, Huan Liu. "Convergence of Influential Bloggers for Topic Discovery in the Blogosphere". In *Proceedings of International Conference on Social Computing, Behavioral Modeling and Prediction (SBP'10)*, pages 406-412, March 29 - April 1, 2010.
18. Reza Zafarani, William D. Cole, Huan Liu: *Sentiment Propagation in Social Networks: A Case Study in LiveJournal*. In *Proceedings of International Conference on Social Computing, Behavioral Modeling and Prediction (SBP'10)*, pages 413-420, March 29 - April 1, 2010.
19. Zheng Zhao, Jiangxin Wang, Huan Liu, Yun Chang. "Biological relevance Detection via Network Dynamic Analysis", *2nd International Conference on Bioinformatics and Computational Biology (BICoB)*, Honolulu, Hawaii. March 24 - 26, 2010. **Best Paper Award**
20. Nitin Agarwal, Huan Liu, Shankara Subramanya, John Salerno, and Philip Yu. "Connecting Sparsely Distributed Similar Bloggers", *IEEE International Conference on Data Mining (ICDM'09)*, Dec, 2009.
21. Lei Tang, Xufei Wang, and Huan Liu. "Uncovering Groups via Heterogeneous Interaction Analysis", *IEEE International Conference on Data Mining (ICDM'09)*, Dec, 2009.
22. Nitin Agarwal, Shamanth Kumar, Merlyna Lim, and Huan Liu. *Mapping Socio-Cultural Dynamics in Indonesian Blogosphere*. *3rd AAAI International Conference on Computational Cultural Dynamics (ICCCD09)*, pp. 37-44, December 7-8, 2009. Washington D.C.
23. Lei Tang and Huan Liu. "Scalable Learning of Collective Behavior based on Sparse Social Dimensions", *The 18th ACM Conference on Information and Knowledge Management (CIKM'09)*, Hong Kong, Nov. 2-6, 2009.
24. Zheng Zhao, Huan Liu, Jiangxin Wang, and Yung Chang. *Biological relevance detection via network dynamic analysis*. In *The 7th Georgia Tech - ORNL Conference on Bioinformatics - In silico Biology: Genome Biology and Bioinformatics, 2009*. Poster.
25. Zheng Zhao, Jiangxin Wang, Shashvata Sharma, Nitin Agarwal, Huan Liu, and Yung Chang. *A knowledge-oriented framework for gene selection*. In *13th Annual International Conference on Research in Computational Molecular Biology (RECOMB)*, 2009. Poster.
26. Sai T. Moturu and Huan Liu, "Evaluating the Trustworthiness of Wikipedia Articles through Quality and Credibility", *The 5th International Symposium on Wikis and Open Collaboration, Florida, Oct 25-27, 2009*.
27. Sai T. Moturu, Jian Yang, and Huan Liu. "Quantifying Utility and Trustworthiness for Advice Shared on Online Social Media", *Symposium on Social Intelligence and Networking, IEEE International Conference on Social Computing (SocialCom'09)*, Vancouver, Canada, Aug 29-31, 2009.
28. Nitin Agarwal, Shamanth Kumar, Huan Liu, and Reza Zafarani. "Investigating Behavioral Patterns Across Social Media: from Blogging to Microblogging", *Human, Social, Cultural, and Behavioral Modeling Conference (HSCB)*, August 4-7, 2009.
29. Z. Zhao, L. Sun, S. Yu, H. Liu, J. Ye. "Multiclass Probabilistic Kernel Discriminant Analysis", *IJCAI'09*

30. L. Tang and H. Liu. “Relational Learning via Latent Social Dimension”, Poster Paper, The 15th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD’09), Paris, France, August 2009.
31. N. Agarwal, H. Liu, S. Murthy, A. Sen, X. Wang. “A Social Identity Approach to Identify Familiar Strangers in a Social Network”, Third International Conference on Weblogs and Social Media (ICWSM09), Full Paper, May 17 - 20, 2009, San Jose, California.
32. N. Agarwal, S. Kumar, H. Liu, M. Woodward. “BlogTrackers: A Tool for Sociologists to Track and Analyze Blogosphere”, Third International Conference on Weblogs and Social Media (ICWSM09), Demo Paper, May 17 - 20, 2009, San Jose, California.
33. R. Zafarani, H. Liu. “Connecting Corresponding Identities across Communities”, Third International Conference on Weblogs and Social Media (ICWSM09), Poster Paper, May 17 - 20, 2009, San Jose, California.
34. N. Agarwal, H. Liu, J. Salerno, and S. Sundararajan. “Understanding Group Interaction in Blogosphere: A Case Study”, Second International Conference on Computational Cultural Dynamics (ICCCD08), pp 9 - 17. September 15-16, 2008. University of Maryland, College Park, Maryland.
35. L. Tang, H. Liu, J. Zhang, and Z. Nazeri. “Community Evolution in Dynamic Multi-Mode Networks”, ACM SIGKDD’08, pp 677-685. August 24-27, 2008. Las Vegas, Nevada.
36. Z. Zhao, J. Wang, H. Liu, J. Ye, and Y. Chang. “Identifying Biologically Relevant Genes via Multiple Heterogeneous Data Sources”, In Proceedings of The 14th International Conference on Knowledge Discovery and Data Mining (ACM SIGKDD), pp 839-847. August 24-27, 2008. Las Vegas, Nevada.
37. J. Ye, K. Chen, T. Wu, J. Li, Z. Zhao, R. Patel, M. Bae, R. Janardan, H. Liu, G.A. Ander, and E. Reiman. “Heterogeneous data fusion for alzheimer’s disease study”. In Proceedings of The 14th International Conference on Knowledge Discovery and Data Mining (ACM SIGKDD), August 24-27, 2008. Las Vegas, Nevada, August 24-27, 2008. Las Vegas, Nevada.
38. S. Subramanya, B. Li, and H. Liu. “Robust Integration of Multiple Information Sources by View Completion”, IEEE International Conference on Information Reuse and Integration 2008 (IEEE IRI), pp 398-403. July 13 -15, 2008. Las Vegas, Nevada.
39. N. Agarwal, M. Galan, H. Liu, S. Subramanya. “Clustering Blogs with Collective Wisdom”, 8th International Conference on Web Engineering (ICWE08), July 14-18, 2008. Yorktown Heights, NY. (short paper, pp 336-339).
40. W.K. Wong, D. W.L. Cheung, E. Hung, and H. Liu. “Protecting Privacy in Incremental Maintenance for Distributed Association Rule Mining”, Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD), pp 381-392, May 22 - 23, 2008. Osaka, Japan.
41. N. Agarwal, H. Liu, L. Tang, and P. Yu. “Identifying Influential Bloggers in a Community”, First International Conference on Web Search and Data Mining (WSDM08), Stanford, California, pp 207-218, February 11-12, 2008.
42. S. Moturu, H. Liu, W. Johnson. “Health Care Risk Modeling For Medicaid Patients: The Impact of Sampling on the Prediction of High-Cost Patients”, International Conference on Health Informatics (HEALTHINF), pp 126-133, Madeira, Portugal, January 28-31, 2008. **Best Student Paper Award**

43. S. Moturu, W. Johnson, and H. Liu. "Predicting Future High-Cost Patients: A Real-World Risk Modeling Application", *IEEE International Conference on Bioinformatics and Biomedicine (IEEE BIBM 2007)*, pp 202-208, San Jose, CA, Nov 2-4, 2007.
44. N. Agarwal, H. Liu, J. Salerno, and P. Yu. "Searching for 'Familiar Strangers on Blogosphere'", *National Science Foundation Symposium on Next Generation of Data Mining and Cyber-Enabled Discovery for Innovation (NSF NGDM07)*. 5 pages. October 10 - 12, 2007. Baltimore, MD.
45. G.P.C. Fung, J.X. Yu, H. Liu, P.S. Yu. "Time-dependent event hierarchy construction." *International Conference on Knowledge Discovery and Data Mining, KDD07, 2007*: 300-309.
46. J. Chen, Z. Zhao, J. Ye, Huan Liu. "Nonlinear adaptive distance metric learning for clustering." *International Conference on Knowledge Discovery and Data Mining, KDD07, 2007*: 123-132.
47. Z. Zhao and H. Liu. "Spectral Feature Selection for Supervised and Unsupervised Learning". *International Conference on Machine Learning (ICML-07)*, pp 1151-1157. June 20-24, 2007, Corvallis, Oregon.
48. J. Ye, Z. Zhao, and H. Liu. "Adaptive Distance Metric Learning for Clustering". *IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR-07)*, June 18-23, 2007, Minneapolis, Minnesota.
49. Z. Zhao and H. Liu. "Semi-supervised Feature Selection via Spectral Analysis", *SIAM International Conference on Data Mining (SDM-07)*, pp 641-646. April 26-28, 2007, Minneapolis, Minnesota.
50. Z. Zhao and H. Liu. "Searching for Interacting Features", *The 20th International Joint Conference on AI (IJCAI-07)*, pp 1156-1161. January 6-12, 2007. Hyderabad, India.
51. Gabriel P.C. Fung, J. Yu, H. Wang, D.W. Cheung, and H. Liu. "A Balanced Ensemble Approach to Weighting Classifiers for Text Classification", *IEEE International Conference on Data Mining (ICDM'06)*. pp 869-873. December 18-22, Hong Kong.
52. L. Tang, J. Zhang, and H. Liu. "Acclimatizing Taxonomic Semantics for Hierarchical Content Classification", *The 12th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD2006)*, pp 384-393. August, 2006. Philadelphia.
53. S.K. Singhi and H. Liu. "Feature Subset Selection Bias for Classification Learning", *The 23rd International Conference on Machine Learning (ICML)*, pp. 849-856. Pittsburgh, Pennsylvania, June, 2006.
54. P. Wu, J.R. Wen, H. Liu, W.Y. Ma. "Query Selection Techniques for Efficient Crawling of Structured Web Sources", *The 22nd International Conference on Data Engineering (ICDE)*, pp 47-56. Atlanta, Georgia, 2006.
55. L. Tang and H. Liu. "Bias Analysis in Text Classification for Highly Skewed Data", *The Fifth IEEE International Conference on Data Mining (ICDM)*, pp 781-784. November, 2005. New Orleans, Louisiana.
56. S. Singhi and H. Liu. "Error-Sensitive Grading for Model Combination", *Proceedings of the European Conference on Machine Learning (ECML/PKDD)*. pp 724-732, October, 2005. Porto, Portugal.

57. N. Agarwal, E. Haque, H. Liu, L. Parsons. "Research Paper Recommender System: A Subspace Clustering Approach", *The 6th International Conference on Web-Age Information Management (WAIM 2005)*, pp. 475 - 491, October 11-13, 2005, Hang Zhou, China.
58. R. Jin, H. Liu. "A Novel Approach to Model Generation for Heterogeneous Data Classification", *the 19th International Joint Conference on AI (IJCAI-05)*, pp 746-751. July 30 - August 5, 2005. Edinburgh, Scotland. *online proceedings*.
59. R. Jin, H. Liu, K. Feng. "Learning with Labeled Sessions", *the 19th International Joint Conference on AI (IJCAI-05)*, pp 740-745. July 30 - August 5, 2005. Edinburgh, Scotland.
60. J. Sun, H. Zeng, H. Liu, Y. Lu, Z. Chen. "CubeSVD: A Novel Approach to Personalized Web Search", *the 14th International World Wide Web Conference (WWW2005)*, pp 382-390. May 10- 14, Chiba, Japan.
61. K. Torkkola, S. Venkatesan, and H. Liu. "Sensor Sequence Modeling for Driving", *the 18th International FLAIRS Conference*, pp 721-727. May 15-17, 2005, Clearwater Beach, Florida.
62. M. Galan, H. Liu, K. Torkkola. "Intelligent Instance Selection of Data Streams for Smart Sensor Applications", *SPIE Defense & Security Symposium, Intelligent Computing: Theory and Applications III*, Orlando, Florida, March 28-29, 2005. Volume 5803. pp. 108 - 119.
63. L. Yu, C. Baral, S. Kim, J. L Rennert, D. Hoelzinger, M.E. Berens, and H. Liu. "Discriminative Gene Selection for Brain Tumor Migration". *Pacific Symposium on Biocomputing (PSB)*, 2005.
64. D. Banks, G. Dong, H. Liu, and A. Mandvikar. "Teaching Undergraduate Data Mining in Engineering Program", *Frontiers in Education Conference*, pp F4C (1-6). October 20-23, 2004, Savannah, Georgia.
65. K. Torkkola, S. Venkatesan, and H. Liu. "Sensor Selection for Maneuver Classification", *The 7th IEEE International Conference on Intelligent Transportation Systems (ITSC2004)*, October 3-6, 2004, Loews L'Enfant Plaza Hotel, Washington DC.
66. R. Jin and H. Liu. "SWITCH: A Novel Approach to Ensemble Learning for Heterogeneous Data", *The 15th European Conference on Machine Learning*, pp 560-562. September 20-24, 2004, Pisa, Italy.
67. L. Yu and H. Liu. "Redundancy Based Feature Selection for Microarray Data", *SIGKDD, KDD 2004*, pp 737-742. August, 22 - 25, 2004. Seattle, Washington.
68. H. Liu, A. Mandvikar, and J. Mody. "An Empirical Study of Building Compact Ensembles for Classification", *The Fifth International Conference on Web-Age Information Management (WAIM)*, pp 622-627. 15 - 17 July 2004, Dalian, China.
69. R. Jing and H. Liu. "Robust Feature Induction for Support Vector Machines", *the 21st International Conference on Machine Learning*, pp 57-64. July, 2004.
70. A. Mandvikar, H. Liu, and H. Motoda. "Compact Dual Ensemble for Active Learning", *The Eighth Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, pp 293-297. May 26 - 28, 2004, Sydney, Australia.
71. A. Mandvikar and H. Liu. "Class-Specific Ensembles for Active Learning in Digital Imagery", *SIAM International Conference on Data Mining 2004*, April 22-24, 2004. pp 412-421. Lake Buena Vista, Florida.

72. P. Foschi, D. Kolippakkam, and H. Liu, "Feature Selection for Image Data via Learning", *IMMCN 2003*, September 26-30, 2003, North Carolina, USA.
73. L. Yu and H. Liu, "Efficiently Handling Feature Redundancy in High-Dimensional Data". In *Proceedings of The Ninth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, Washington, D.C., pp 685-690. August 24 - 27, 2003.
74. L. Yu and H. Liu. "Feature Selection for High-Dimensional Data: A Fast Correlation-Based Filter Solution". In *Proceedings of The Twentieth International Conference on Machine Learning (ICML-03)*, Washington, D.C., pp 856-863. August 21-24, 2003.
75. H. Liu, A. Mandvikar, P. Foschi, and K. Torkkola, "Active Learning with Ensembles for Image Mining", *International Joint Conference on AI (IJCAI'2003)*. pp 1435-1436. Acapulco, Mexico. August 9-15, 2003.
76. H. Liu, H. Lu, and L. Yu. "Active Sampling: An Effective Approach to Feature Selection", *SIAM Data Mining*, 2003. pp 244 - 248. San Francisco, CA.
77. H. Liu, L. Yu, M. Dash, H. Motoda. "Active Feature Selection Using Classes", *PAKDD 2003*, pp 474-485. Seoul, Korea.
78. S.S. Yau, H. Liu, D. Huang, Y. Yao. "Situation-aware Personalized Information Retrieval for Mobile Internet", *Proceedings of the 27th Annual International Conference on Computer Software and Applications Conference*, 2003. *COMPSAC 2003*, pp 639-644. 3-6 Nov. 2003.
79. H. Nguyen, P. Velamuru, D. Kolippakkam, H. Davulcu and H. Liu, "Mining 'Hidden Phrase' Definitions from the Web", *Proceedings of The Fifth Asia Pacific Web Conference*, 27-29 Sept., 2003. pp. 156 - 165. Xi'an China.
80. D. Manoranjan, K. Choi, P. Scheuermann, H. Liu, "Feature Selection for Clustering - A Filter Solution", *Proceedings of ICDM 2002*. pp 115-122. Dec 9 - 12, 2002, Japan.
81. H. Liu, H. Motoda, and L. Yu, "Feature Selection with Selective Sampling", *Proceedings of the 19th International Conference on Machine Learning*. pp 395-402. July 8-12, 2002. Sydney, Australia.
82. W.M. Campbell and H. Liu, "Using Feature Transformation and Selection with Polynomial Networks," *Proceedings of the SPIE - The International Society for Optical Engineering* vol.4390 p.175-86. Publisher: SPIE-Int. Soc. Opt. Eng. Applications and Science of Computational Intelligence IV. Orlando, Florida, April 16-20, 2001.
83. M. Dash, K. L. Tan, and H. Liu, "Efficient Yet Accurate Clustering". (*ICDM-2001*), *IEEE International Conference on Data Mining*, November 2001. pp 99-106.
84. B. Gu, B. Liu, F. Hu, and H. Liu, "Efficiently Determining the Starting Sample Size for Progressive Sampling", *Proceedings of the 12th European Conference on Machine Learning, Machine Learning: ECML-2001*, L. De Raedt, P. Flach (Eds.) Sept 3 - 7, 2001. Freiburg, Germany. pp 192-202, Springer-Verlag.
85. B. Gu, F. Hu, H. Liu, "Modeling Classification Performance for Large Data Sets", *WAIM'2001, Proceedings of the Second International Conference of Web-Age Information Management*, Xi'an, China. July, 2001. pp 317-328.

86. C. Wen, H. Liu, W.X. Wen, J. Zheng, "A Distributed Hierarchical Clustering System for Web Mining", *WAIM'2001, Proceedings of the Second International Conference of Web-Age Information Management, Xi'an, China. July, 2001. pp 103-113.*
87. M. Dash, H. Liu, and X. Xu, "1 + 1 > 2': Merging Distance and Density Based Clustering", *the 7th International Conference on Database Systems for Advanced Applications, DASFAA 2001, pages 32-39, HongKong. IEEE Computer Society Publisher. April, 2001.*
88. M. Dash and H. Liu. "Efficient Hierarchical Clustering Algorithms using Partially Overlapping Partitions", *the 5th Pacific Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2001, HongKong.*
89. D.P. Makawita, K.L. Tan and H. Liu. "Sampling from Databases Using B⁺-Trees", *Conference on Information and Knowledge Management (CIKM 2000), Washington, DC, Nov 6-11, 2000.*
90. "Consistency based feature selection", (with Dash, M. and Motoda, H.), *the 4th Pacific Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2000, Kyoto, Japan.*
91. "Feature Selection for Clustering", (with Dash, M.), *the 4th Pacific Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2000, Kyoto, Japan. (After 10 years at PAKDD 2010, this paper received "the Most Influential Paper" award.)*
92. "Exception Rule Mining with a Relative Interestingness Measure", (with Hussain, F., Suzuki, E. and Lu, H), *the 4th Pacific Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2000, Kyoto, Japan.*
93. "A Study of Support Vectors on Model Independent Example Selection", (with Syed, N.A. and Sung, K.K), *ACM SIGKDD Conference on Knowledge Discovery and Data Mining, 1999, San Diego, USA.*
94. "Handling Concept Drifts in Incremental Learning with Support Vector Machines", (with Syed, N.A. and Sung, K.K), *ACM SIGKDD Conference on Knowledge Discovery and Data Mining, 1999, San Diego, USA.*
95. "Efficient Search of Reliable Exceptions", (with H. Lu, L. Feng and F. Hussain), *the 3rd Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD'99), April, 1999. Beijing, China. Springer-Verlag.*
96. "Feature Transformation and Multivariate Decision Tree Induction", (with R. Setiono), *Proceedings of the First International Conference on Discovery Science (DS'98), Fukuoka, Japan. December 14-16, 1998. Springer-Verlag.*
97. "Hybrid Search of Feature Subsets", (with M. Dash), *Pacific Rim International Conference on AI (PRICAI'98), 22-27 November, 1998. Singapore. Springer-Verlag.*
98. "Fragmentation Problem and Automated Feature Construction", (with R. Setiono), *Proceedings of the Tenth IEEE International Conference on Tools with AI (ICTAI'98), November 10-12, 1998. Taipei, Taiwan. IEEE Computer Society.*
99. "A Data Mining Application: Customer Retention at the Port of Singapore Authority (PSA)", (with K.S. Ng and H.B. Kwah), *SIGMOD'98, June 1-4, 1998. Seattle, Washington, USA.*
100. "A Monotonic Measure for Optimal Feature Selection", (with H. Motoda and M. Dash), *10th European Conference on Machine Learning (ECML-98), April 21-24, 1998. Chemnitz, Germany. Springer-Verlag.*

101. "Identifying Relevant Databases for Multidatabase Mining", (with H. Lu and J. Yao), the 2nd Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD'98), April 15-18, 1998. Melbourne, Australia. Springer-Verlag.
102. "Scalable Feature Selection for Large Sized Databases", (with R. Setiono), the Fourth World Congress on Expert Systems (WCES'98), March 1998, Mexico City, Mexico.
103. "Dimensionality Reduction of Unsupervised Data", (with M. Dash and J. Yao), the Ninth IEEE International Conference on Tools with AI (ICTAI'97), Nov., 1997, Newport Beach, California.
104. "NeuralLinear: A System for Extracting Oblique Decision Rules from Neural Networks", (with R. Setiono), the 9th European Conference on Machine Learning (ECML'97), 23-26 April, 1997. Prague, Czech Republic.
105. "Searching Multiple Databases for Interesting Complexes", (with J. Yao), the 1st Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD'97), 23-24 Feb., 1997, pp. 198-210. Singapore.
106. "A probabilistic approach to feature selection - A filter solution", (with R. Setiono), the 13th International Conference on Machine Learning (ICML'96), July 1996, pp. 319-327. Bari, Italy.
107. "Feature selection and classification - A probabilistic wrapper approach", (with R. Setiono), the 9th International Conference on Industrial & Engineering Applications of Artificial Intelligence & Expert Systems (IEA-AIE'96), June 1996, pp. 419-424. Fukuoka, Japan.
108. "Chi2: Feature selection and discretization of numeric attributes", (with R. Setiono), the 7th IEEE International Conference on Tools with Artificial Intelligence (TAI'95), Nov.1995, Washington D.C., USA. PP 388 - 391.
109. "X2R: A Fast Rule Generator", with (S.T. Tan), IEEE International Conference on Systems, Man and Cybernetics (SMC'95), Oct. 1995, Vancouver, Canada. PP 1631-1635.
110. "NeuroRule: A Connectionist Approach to Data Mining", with (H. Lu and R.Setiono), International Conference on Very Large Databases (VLDB'95), Oct. 1995, Zurich, Switzerland. PP 478 - 489.
111. "Understanding Neural Networks via Rule Extraction", (with R. Setiono), International Joint Conference on Artificial Intelligence (IJCAI-95), Aug. 1995, Montreal, Canada. pp 480-485.
112. "A Feature Weighting Method for Inductive Learning", (with W.X. Wen), The Third Pacific Rim International Conference on Artificial Intelligence, August 15-18, 1994, Beijing, China. pp 338-344.
113. "Making Use of Class Information in Self-Generating Neural Networks", (with W.X. Wen), Proceedings of ACNN'94 (the 5th Australian Neural Network Conference), Jan. 31 - Feb. 2, 1994, Brisbane, Australia.
114. "Concept Learning through Feature Selection", (with W.X. Wen), The First Australian and New Zealand Conference on Intelligent Information Systems, 1-3 December, 1993, Perth, Western Australia.
115. "Supervised Learning for Self-Generating Neural Trees", (with W.X. Wen and A. Jennings), 1993 World Congress on Neural Networks, Portland, Oregon, USA.

116. "Some Performance Comparisons for SGNT", (with W.X. Wen and A. Jennings), the 4th Australian National Conference on Artificial Intelligence, November 16-18, 1992, Hobart, Tasmania.
117. "Critics in Knowledge-Based Design Systems", (with C. Rowles and W.X. Wen), *ibid.*
118. "Artificial Intelligence – Operational Perspective: the CANES Example", (with C.D. Rowles, C. Leckie, and A. Jennings), National Technology in Government Conference, Feb. 1992, Canberra, Australia.
119. "Learning a Neural Tree", (with W.X. Wen and A. Jennings), the International Joint Conference on Neural Networks, IJCNN'92, November 3-6, 1992, Beijing, China. pp II-751 - II-756.
120. "A Performance Analysis of Self-Generating Neural Trees", (with W.X. Wen and A. Jennings), *ibid.* pp II-283 - II-288.
121. "Evolving a Design", (with C. Rowles), the First Singapore International Conference on Intelligent Systems, Sept. 28-Oct. 2, 1992, Singapore. pp 337 - 342.
122. "Joint Concept Formation and Abstraction", (with W. Wen), the Pacific Rim International Conference on Artificial Intelligence, September 15-18, 1992, Seoul, South Korea.
123. "Planning with Intentions", (with C. Rowles and G.A. Bekey), *ibid.*
124. "Self-Generating Neural Networks and Their Applications to Telecommunications", (with W. Wen and A. Jennings), the International Conference on Communication Technology, September 16-18, 1992, Beijing, China.
125. "Self-Generating Neural Networks", (with W. Wen and A. Jennings), the International Joint Conference on Neural Networks, June 7-11, 1992, Baltimore, U.S.A. pp IV-779 - IV-784.
126. "Design, Evaluation and Redesign - Handling the ad-hocness of a knowledge-based design system", (with C.D. Rowles and W. Wen), the IEEE Conference on AI Applications, March 1992, California, U.S.A.
127. "Knowledge-based Models of Human and Robot Grasping", (with G.A. Bekey, T. Iberall and R. Tomovic), IFAC Symposium on Systems Identification, July, 1991, Budapest, Yugoslavia.
128. "Automating the Design of Telecommunication Distribution Networks", (with C. Rowles, C. Leckie and W. Wen), the First International Conference on Artificial Intelligence in Design, 25-27 June, 1991, Edinburgh, UK.
129. "Optimizing Knowledge-based Systems Design", (with W. Wen and C.D. Rowles), the IEEE Conference on AI Applications, February, 1991, Miami, Florida, U.S.A.
130. "Integrating Design Principles in Automated Layout Design" (with C.D. Rowles and C. Leckie), the International Conference on Automation, Computer Vision and Robotics, September, 1990, Singapore. pp 180 - 184.
131. "Acquisition of Grasping Heuristics for Robot Hand Control", the 3rd Australian National Conference on Artificial Intelligence, Nov. 1990, Perth, Australia.

132. “Machine Regeneration of Solver’s Problem Solving” (with H.A. Rowe), the First Annual Conference of Australasian Cognitive Science, Nov. 1990, University of New South Wales, Australia.
133. “Knowledge-based Multifingered Robot Hand Grasping”, the 3rd Australian National Conference on Robotics, June, 1990, Melbourne, Australia.
134. “Intention Attributes in Planning” (with C.D. Rowles), the Pacific Rim International Conference on Artificial Intelligence’90, November, 1990, Nagoya, Japan.
135. “The Multi-dimensional quality of task requirements for dextrous robot hand control” (with T. Iberall and G.A. Bekey), the IEEE International Conference on Robotics and Automation, May, 1989, Scottsdale, Arizona.
136. “Building a generic architecture for robot hand control” (with T. Iberall and G.A. Bekey), the IEEE International Conference on Neural Networks, July, 1988, San Diego, California.
137. “Robot hand-eye coordination: shape description and grasping”, (with K. Rao, G. Medioni and G.A. Bekey) the IEEE International Conference on Robotics and Automation, April, 1988, Philadelphia, Pennsylvania.
138. “Reasoning about grasping from task description” (with T. Iberall and G.A. Bekey), *Advances in Intelligent Robotics Systems*, SPIE’s Cambridge Symposium on Optical and Optoelectronic Engineering, November, 1988, Cambridge, Massachusetts.
139. “Learning activities in robot hand control” (with G.A. Bekey), the Robotics and Automation Symposium, the International Association of Science and Technology for Development, May, 1987, Santa Babra, California.

WORKSHOPS

1. Lei Tang, Huiji Gao, and Huan Liu. *Network Quantification Despite Biased Labels*. In *Workshop on Mining and Learning with Graphs*, KDD 2010.
2. Lei Tang, Xufei Wang, Huan Liu and Lei Wang. *A Multi-Resolution Approach to Learning with Overlapping Communities*. In *Workshop on Social Media Analytics*, KDD 2010
3. Huan Liu, Hiroshi Motoda, Rudy Setiono, and Zheng Zhao. *Feature Selection: An Ever Evolving Frontier in Data Mining*, *Journal of Machine Learning Research*, *Workshop and Conference Proceedings Volume 10*, 10:4-13, 2010.
4. Zheng Zhao, Jiangxin Wang, Shashvata Sharma, Nitin Agarwal, Huan Liu, and Yung Chang. “Integrating knowledge in search of biologically relevant genes”. In *The 3rd International Workshop on Domain Driven Data Mining (DDDM)*, 2009.
5. Sai Moturu and Huan Liu. “Trust Assessment in Social Media”, (poster presentation) *Second Annual Workshop on Information Assurance Research and Education*, Information Assurance Center, Arizona State University, May 6, 2009.
6. Lei Tang and Huan Liu. *Uncovering Cross-Dimension Group Structures in Multi-Dimensional Networks*, *Workshop on Analysis of Dynamic Networks at the SIAM International Conference on Data Mining*, May 2, 2009.

7. Shankara Subramanya and Huan Liu. "SocialTagger - Collaborative Tagging for Blogs in the Long Tail", *Workshop on Search in Social Media, ACM 17th Conference on Information and Knowledge Management, October 26-30, 2008. Napa Valley, California.*
8. P. Refaeilzadeh, L. Tang, H. Liu. "On Comparison of Feature Selection Algorithms", *AAAI 2007 Workshop on Evaluation Methods for Machine Learning II, Vancouver, British Columbia, Canada. July 22, 2007.*
9. P. Singh, R. Bhimavarapu, H. Davulcu, C. Baral, S. Kim, H. Liu, M. Bittner and I.V. Ramakrishnan. "BioLog: A Browser Based Collaboration and Resource Navigation Assistant for BioMedical Researchers", *2nd International Workshop on Data Integration in the Life Sciences (DILS 2005) University of California, San Diego July 20 - 22, 2005.*
10. K. S. Candan, J.W. Kim, H. Liu, and R. Suvarna. "Structure-based Mining of Hierarchical Media data, Metadata, and Ontologies", *Fifth International Workshop on Multimedia Data Mining (MDM/KDD 2004), August 22 - 25, 2004, Seattle, WA, USA.*
11. P. Foschi, G. Fields II, and H. Liu. "Detecting a Spectrally Variable Subject in Color Infrared Imagery Using Data-Mining and Knowledge-Engine Methods". *3rd International workshop on Pattern Recognition in Remote Sensing, Kingston University, Kingston upon Thames, August 27, 2004.*
12. L. Parsons, E. Haque, and H. Liu. "Evaluating subspace clustering algorithms". In *Workshop on Clustering High Dimensional Data and its Applications, SIAM International Conference on Data Mining (SDM 2004), pages 48-56, 2004.*
13. Y. Ding, H. Liu, A. Ramineni, A. Sen. "Detecting Hidden Messages in Images: A Comparative Study", *2nd Workshop on Privacy Preserving Data Mining (PPDM), Melbourne, Florida, USA, November 19, 2003.*
14. P. Foschi, D. Kolippakkam, H. Liu, A. Mandvikar, "Feature Extraction for Image Mining", *International Workshop on Multimedia Information Systems (MIS 2002), 10/30/02 - 11/1/02, Tempe, Arizona.*
15. P. Foschi and H. Liu, "Active Learning for Classifying a Spectrally Variable Subject", *the 2nd International Workshop on Pattern Recognition for Remote Sensing, (PRRS 2002), August 16, 2002. Niagara Falls, Canada.*
16. B. Gu, B. Liu, F. Hu, and H. Liu, "Efficiently Determining Initial Sample Size for Progressive Sampling", *SIGMOD Data Mining and Knowledge Discovery Workshop, (DMDK), May 20, 2001, Santa Barbra, USA.*
17. D. Manoranjan and H. Liu. "Attribute Hierarchy: A Fast and Memory-Efficient Approach to Density-Based Clustering", *ACM SIGKDD Workshop on Distributed and Parallel Knowledge Discovery (DPKD-2000), Boston, August 2000.*
18. "Incremental Learning with Support Vector Machines", (with Syed, N.A. and K.K. Sung), *International Joint Conference on Artificial Intelligence (IJCAI'99), Workshop on Support Vector Machines, August 2, 1999, Stockholm, Sweden.*
19. "Handling Large Unsupervised Data via Dimensionality Reduction", (with M. Dash), *SIGMOD Data Mining and Knowledge Discovery Workshop (DMKD), May 30, 1999. Philadelphia, USA.*

20. “A Belief-Based Approach to Knowledge Discovery in Databases”, (with K.S. Ng), *Second Pacific Rim Knowledge Acquisition Workshop*, 22-23 November 1998, Singapore.
21. “An Efficient Approach to Searching for ‘Reliable’ Exceptions”, (with F. Hussain and K.S. Ng), *Knowledge Discovery and Data Mining Workshop at PRICAI’98*, 22-27 November 1998, Singapore.
22. “Towards Effective Classification Rule Extraction”, (with H. Lu and R. Setiono), *DOOD’95 workshop on Integration of Knowledge Discovery in Databases with Deductive and Object-Oriented Databases*, Dec. 1995, Singapore.
23. “Representation of Designs and Design Knowledge”, (with C.D. Rowles and C. Leckie), *IJ-CAI’91 workshop on “AI in Design”*, August, 1991, Sydney, Australia.
24. “A Personal News Service Based on a User Model Neural Network”, (with A. Jennings and H. Higuchi), *IJCAI’91 workshop on “Modeling for Intelligent Interaction”*, *ibid.*
25. “Task analysis: a method of robot hand control”, *Simulation’87*, Society of Manufacturing Engineers, *AI in Manufacturing*, October, 1987, Long Beach, California.

Ph.D. THESIS

“Knowledge-Based Grasp Planning for Robot Hands”, *Computer Science Department, University of Southern California, Los Angeles, CA 90089, 1989.*
 Thesis Advisor: Dr. George A. Bekey.

TECHNICAL REPORTS

1. Xia Hu and Huan Liu. “Social Status and Role Analysis of Palin’s Email Network”, *ASUCIDSE-2011-007*, School of Computing, Informatics, and Decision Systems Engineering, Arizona State University, AZ 85287. Nov. 2011.
2. Pritam Gundecha and Huan Liu. “Minimizing User Vulnerability and Retaining Social Utility in Social Media”, *ASUCIDSE-2011-006*, School of Computing, Informatics, and Decision Systems Engineering, Arizona State University, AZ 85287. Nov. 2011.
3. Jiliang Tang and Huan Liu. “Feature Selection with Linked Data in Social Media”, *ASUCISE-2011-005*, School of Computing, Informatics, and Decision Systems Engineering, Arizona State University, AZ 85287. Nov. 2011.
4. Huiji Gao, Xufei Wang, Jiliang Tang, and Huan Liu. “Network Denoising in Social Media”, *TR-11-002*, School of Computing, Informatics, and Decision Systems Engineering, Arizona State University, AZ 85287, Feb. 2011.
5. Pritam Gundecha, Geoffrey Barbier, and Huan Liu. “Exploiting Vulnerability to Secure User Privacy on Social Networking Sites”, *TR-11-001*, School of Computing, Informatics, and Decision Systems Engineering, Arizona State University, AZ 85287, Feb. 2011.
6. N. Agarwal, H. Liu, J. Salerno, S. Subramanya, and P. Yu. “Familiar Strangers: Connecting Dots on Blogosphere”, *Technical Report, TR-08-005*, School of Computing Informatics, Arizona State University, Tempe, AZ 85287, 2008.

7. N. Agarwal, M. Galan, H. Liu, S. Subramanya. "Clustering with Collective Wisdom - A Comparative Study", Technical Report, TR-08-004, School of Computing Informatics, Arizona State University, Tempe, AZ 85287, 2008.
8. S. Subramanya, B. Li, C. Gries and H. Liu. *Selecting Complementary Features from Multiple Data Sources for Information Integration*, Technical Report, TR-07-009, School of Computing Informatics, Arizona State University, Tempe, AZ 85287, 2007.
9. N. Agarwal, H. Liu, J. Salerno, P. Yu. "Searching for 'Familiar Strangers' on Blogosphere", Technical Report, TR-07-008, CSE, School of Computing Informatics, Arizona State University, Tempe, AZ 85287, 2007.
10. N. Agarwal, H. Liu, L. Tang. "Identifying the Influentials in Blogosphere", Technical Report, TR-07-004, CSE, School of Computing Informatics, Arizona State University, Tempe, AZ 85287, 2007.
11. Z. Zhao and H. Liu. "Semi-supervised Feature Selection via Spectral Analysis", Technical Report, TR-06-022, Department of Computer Science and Engineering, Arizona State University, Tempe, AZ 85287, 2006.
12. Y. Ye, L. Yu, and H. Liu. "Sparse Linear Discriminant Analysis", Technical Report, TR-06-010, Department of Computer Science and Engineering, Arizona State University, Tempe, AZ 85287, 2006.
13. L. Tang, J. Zhang, and H. Liu, "Acclimatizing Taxonomic Semantics for Hierarchical Content Classification", Technical Report, TR-06-004, Department of Computer Science and Engineering, Arizona State University, Tempe, AZ 85287, 2006.
14. L. Tang and H. Liu, "Bia Analysis in Text Classification for Highly Skewed Data", Technical Report, TR-05-008, Department of Computer Science and Engineering, Arizona State University, Tempe, AZ 85287, 2005.
15. L. Yu, J. Rennert, H. Liu, and M.E. Berens, "Exploiting Statistical Redundancy in Expression Microarray Data to Foster Biological Relevance", Technical Report, TR-05-005, Department of Computer Science and Engineering, Arizona State University, Tempe, AZ 85287, 2005.
16. D. Kolippakkam, H. Liu, A. Joy, C. Beaudry, M.E. Berens, "An Image Mining Approach for Measuring Intensity, Size and Geographical localization of Stained Bodies in Cultured Cells: Application in Apoptosis Detection", Technical Report, TR-03-010, Department of Computer Science and Engineering, Arizona State University, Tempe, AZ 85287, 2003.
17. B. Gu, F. Hu, and H. Liu, "Sampling and Its Applications in Data Mining: A Survey", School of Computing, National University of Singapore, Technical Report, TRA6-00, 2000.
18. F. Hussain, H. Liu, C.L. Tan, and M. Dash, "Discretization: An Enabling Technique", Technical Report, TRC6/99, School of Computing, National University of Singapore, June, 1999.
19. N.A. Syed, H. Liu and K.K. Sung, "From Incremental Learning to Model Independent Instance Selection - A Support Vector Machine Approach", Technical Report, TRA9/99, School of Computing, National University of Singapore, September, 1999.

1. "Machine Learning, Neural and Statistical Classification" edited by D. Michie, D.J. Spielhalter and C.C. Taylor. *SIGART BULLETIN, - A Quarterly Publication of ACM*, vol.7 no.1. (January 1996):16.
2. "Neural Networks for Statistical Modeling" by M. Smith. *The Australian Computer Journal*, vol. 25, no. 4 (November 1993): 165.
3. "AI in Engineering Design" edited by C. Tsong and D. Sriram. *The Australian Computer Journal*, vol. 25, no. 4 (November 1993): 163.

INVITED TALKS

- "Mining Social Media for Actionable Knowledge", *Integrated R&D Informatics & Knowledge Management, the 19th Molecular Med TRI-CON 2012, Moscone North Convention Center, San Francisco, CA. Feb 22, 2012.*
- "Mining Patterns in Social Media - A New Frontier", *The 3rd Workshop on Domain-Driven Data Mining with ICDM 2011, Keynote, Vancouver, Canada. December 11th, 2011.*
- "Mining Social Media - Issues sand Challenges", *The 3rd SIGMM Workshop on Social Media in Conjunction with ACM Multimedia 2011, Keynote, Scottsdale, AZ. November 29th, 2011.*
- "Understanding Collective Behavior in Social Media", *The 23rd IEEE International Conference on Tools with AI, Keynote, Boca Raton, Florida. November 8th, 2011.*
- "When Connected, Are We Still in Control of Our Destinies?", *Language Technologies Institute Colloquium, Carnegie Mellon University, October 7, 2011.*
- "In Social Media, Your Vulnerability May Be Beyond Your Control", *Information Assurance Center Monthly Seminar, Arizona State University, September 30, 2011. co-presentation with Pritam Gundecha.*
- *Invited Tutorial on "Exploiting Attribute-Value and Linked Data - Complexities and Opportunities in Social Computing", Air Force Research Lab - Wright Patterson Workshop on "Computational Methods for Complex Data Analysis", September 6-7, 2011.*
- *Invited Lecture, Lipari School of Computational Social Science on "Community Detection and Mining in Social Media", Lipari Island, Italy, July 16 - 23, 2011.*
- "Studying Human Behavior in Social Media", *LinkedIn, Mountain View, CA. July 7, 2011.*
- "Studying Social Behavior in Social Media", *Department of Information Science and Electronic Engineering, Zhejiang University, December 18, 2010.*
- "Studying Social Behavior in Social Media", *PAKDD2010 Workshop on Behavior Informatics (BI'10), June 21, 2010. Hyderabad, India.*
- "Building a Social Media Tool for Sociological Studies", *"Social Science and Social Computing: Steps to Integration" Workshop, May 22-23, 2010, University of Hawaii, Hawaii.*
- "Searching for 'Familiar Strangers' in Blogosphere", *Annual Workshop on Information Assurance Research and Education, Information Assurance Center, Arizona State University, May 6, 2009.*

- *“Searching for Influencers and ‘Familiar Strangers’ in Blogosphere”, Navy Center for Applied Research in Artificial Intelligence, Naval Research Lab, NCARAI 2008-2009 Seminar Series, April 20, 2009.*
- *“Blogosphere, Communities, and Influential Bloggers”, University of Southern California, November 18, 2008.*
- *“Prognostics Health Management and Data Mining”, Adaptive Intelligent Materials and Systems (AIMS) Center Research Forum, Ira A. Fulton School of Engineering, Arizona State University, November 12, 2008.*
- *“Data Mining and Social Computing - Moving Forward in Interdisciplinary Research”, Computer Science and Engineering, Faculty Seminar Series, September 26, 2008*
- *“Data Mining and Machine Learning Overview”, Ira A. Fulton School Engineering, Research and Graduates Service Research Breakfast Forum on Computing and Informatics, September 24, 2008*
- *“Blogosphere: An Open Data Source for Social Cultural Research”, The AFOSR Workshop on Mathematical Process of Social-Cultural Modeling, Santa Barbara, September 4, 2008*
- *“Blog Community and Influential Bloggers”, Computer Science Department, University of California, Santa Barbara, September 2, 2008*
- *“Finding Influential Bloggers in a Community”, Microsoft Research, October 29, 2007*
- *“Searching for ‘Familiar Strangers’ on Blogosphere”, Microsoft AdCenter, October 29, 2007.*
- *“Evolving Feature Selection”, IBM T.J. Watson Research Center, July 6, 2007.*
- *“Online Group Interactions”, Air Force Research Lab, Rome, NY, June 22, 2007.*
- *“Active Feature Selection with Large Amounts of Data” M2004, The 7th Annual Data Mining Technology Conference, October, 2004.*
- *“Steganography and Data Mining”, IEEE Computer Society Phoenix, March, 2005.*
- *“An Introduction to Steganography with a Case Study of Steganalysis”, Lockheed-Martin and ASU Seminar, November, 2004.*
- *“Mining Learning and Assisting”, Microsoft Research Asia, July, 2004.*
- *“Data Mining and Data Warehousing”, Microsoft Research China, 2001.*
- *“Feature Selection and Instance Selection for Data Mining”, Management Information Systems, University of Arizona, October, 2000.*
- *“Feature Selection and Instance Selection”, Motorola Research Labs, June, 2000.*
- *“Feature Selection for Data Mining”, Microsoft Research China, 1999.*
- *“How the Service Industry Has Used Data Mining for Better Customer Service Management and Profitability”, Data Warehousing and Data Mining Conference – Using Information Technology to Achieve Business Goals, Asia Business Forum, 25 - 26 January 1999, Singapore.*
- *“A Brief Introduction of AI”, Singapore Ministry of Education Gifted Education Program 1998.*

- “Preprocessing Tasks in Data Mining”, Kansai Advanced Research Center, Japan, May, 1997.
- “Data Mining and Applications”, Computer Science and Engineering, Kyushu Institute of Technology, Japan, May, 1997.
- “Feature Selection for Machine Learning”, Graduate School of Systems Management, The University of Tsukuba, Tokyo, Japan, May 1997.
- “Feature Selection for Machine Learning”, Computer Science, Tokyo Institute of Technology, Japan, May 1997.
- “An Approach to Verifying Knowledge Bases”, Computer Science Department, Monash University, Clayton, Australia, April, 1993.
- “Using Features in Concept Learning and Formation”, Robotics and Digital Technology Department, Monash University, Clayton, Australia, March, 1993.
- “Acquiring Knowledge through Concept Formation”, Systems Engineering Department, The Chinese University of Hong Kong, Hong Kong, March, 1993.
- “Planning with Intentions”, Computer Science Department, Hong Kong University of Science and Technology, Hong Kong. October, 1992.
- “Joint Concept Formation and Abstraction”, Computer Science Department, Hong Kong University, Hong Kong. September, 1992.
- “Concept Formation”, Computer Science Department, National University of Singapore, Singapore. September, 1992.
- “Applying Artificial Intelligence (AI) to Telecommunications”, Computer Science Department, Australia National University, Canberra, Australia. June, 1991.
- “AI in Telecommunications Networks Design”, Computer Science Department, University of Southern California, Los Angeles, U.S.A. Feb. 1991.
- “Grasping, Intentions and Planning”, Communications Research Laboratory, Kansai Advanced Research Center, Japan. Nov. 1990.
- “Some Cognitive Processes in Problem Solving”, (with Helga Rowe from ACER, Melbourne), at the Cognitive Science Meeting in Psychology and Computer Science Departments, Melbourne University, Melbourne, Australia. Oct. 1990.

PROFESSIONAL ACTIVITIES

EDITORIAL BOARD/ASSOCIATE EDITOR/ADVISORY BOARD

- *Social Network Analysis and Mining Journal*, Editorial Board, Springer, 2011 -
- *ACM Transactions on Intelligent Systems and Technology*, 2010 -
- *Wiley Statistical Analysis and Data Mining*, 2008 -
- Editorial Board, *Applied Intelligence*, 2006 - 2011;
- *The Encyclopedia of Data Warehousing and Mining*, Idea Group, Inc. 2004 - 2009;

- *The Handbook of Data Mining*, Lawrence Erlbaum Associates, Inc. Publishers, 2002 - 2004;
- *Knowledge and Information Systems*, 2003 - 2006;
- *Informatica - An International Journal of Computing and Informatics*, 1999 - 2011;

INVITED SPECIALIST MEETING

- *DARPA Workshop on Big Data and Health*, March 23, 2012, Arlington, VA.
- *NSF Discovery Informatics Workshop: Science Challenges for Intelligent Systems*, February 2 - 3, 2012 <http://diw.isi.edu/diw2012>, Arlington, VA.
- *ARO Workshop on Weak Social Ties: Quantification, Metrics and Modeling*, by-invitation only workshop, December 1-2, 2011, Duke University
- *ARO Spatio-Temporal Constraints on Social Networks*, December 13-14, 2010, UC Santa Barbara
- *National Research Council Workshop on New Research Directions for National Geospatial-Intelligence Agency (NGA)* May 17-19, 2010, Washington, D.C.
- *Google Faculty Summit*, July 24-25, 2008.

STEERING COMMITTEE

International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction, 2009 -, Co-Chair.

Pacific-Asia Conference Series on Knowledge Discovery and Data Mining, 1998 - present, Member.

CONFERENCE PROGRAM COMMITTEE CO-CHAIR, AND OTHERS

- *SIAM International Conference on Data Mining (SDM'11 and SDM'12)*, Conference co-chair, 2011 and 2012.
- *International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction*, Sponsorship Co-Chair, 2011, 2012.
- *IEEE/ACM International Conference on Cyber, Physical, and Social Computing (CPSCoM'11)*, Panel Chair, 2011.
- *IEEE/ACM International Conference on Cyber, Physical, and Social Computing (CPSCoM'10)*, Conference co-chair, 2010.
- *IEEE/ACM CPSC'10*, Panel Chair on Research Directions and Opportunities in Cyber, Physical, and Social Computing, 2010.
- *International Workshop on Feature Selection for Data Mining (FSDM)*, Co-organizer, at PAKDD 2010.

- *SIAM International Conference on Data Mining (SDM'09), PC co-chair, 2009.*
- *The Second International Workshop on Social Computing, Behavioral Modeling, and Prediction (SBP), Co-organizer, 2009*
- *International Workshop on Feature Selection for Data Mining (FSDM), Co-organizer, at ECML/PKDD 2008*
- *The First International Workshop on Social Computing, Behavioral Modeling, and Prediction (SBP), Co-organizer, 2008*
- *The 12th Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD), Conference Co-Chair, 2008*
- *SIAM International Conference on Data Mining (SDM'08) 2008, Workshop Chair*
- *The 11th Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD), PC Area Chair, 2007*
- *SIAM International Conference on Data Mining (SDM) 2007, Tutorial Chair*
- *The Second Feature Selection for Data Mining Workshop (FSDM) 2006, Co-Chair*
- *Pacific Rim International Conference on AI (PRICAI), PC Vice Chair, 2006*
- *The Tenth Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD) 2006, Workshop Co-Chair*
- *PAKDD Distinguished Contribution Awards Committee member (2005, 2006)*
- *The Seventh Web-Age Information Management Conference (WAIM) 2006, Publicity Co-Chair*
- *The Ninth Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD) 2005, PC Co-Chair*
- *The Symposium on Applications and Internet (SAINT) 2005, Proceedings Co-Chair*
- *The First Feature Selection for Data Mining Workshop (FSDM) 2005, Co-Chair*
- *Pacific Rim International Conference on AI (PRICAI) 2000, Workshop Chair*
- *The Sixth Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD) 2002, Workshop Chair*
- *IJCAI 2001 Workshop on Wrapper Methods, Workshop Co-Chair*
- *The Fourth Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD) 2000, PC Co-Chair*
- *The First Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD) 1997, Publicity Chair*
- *The Sixth Australian Joint Conference on AI 1993, Organizing Co-Chair*

GUEST EDITOR/CO-EDITOR

- *AI, Social Network and Cultural Modeling*, co-editor with Data Nau, *ACM Transactions on Intelligent Systems and Technology*, (Part I) 2010, (Part II) 2012
- *Social Computing in the Blogosphere*, co-editor with Philip Yu, Nitin Agarwal, and Torsen Suel, *IEEE Internet Computing*, 2010
- *Social Computing, Behavioral Modeling, and Prediction*, co-editor with John Salerno, Michael Young, Rakesh Agrawal, and Philip Yu, *ACM Transactions on Knowledge Discovery from Data*, 2008
- *Mining Streaming Data*, co-editor with Jianping Zhang and Paul Wong, *Journal of Information Sciences*, Elsevier, 2006
- *Evolving Feature Selection*, *IEEE Intelligent Systems, Trends and Controversies*, November/December, 2005
- *Instance Selection*, *Journal of Data Mining and Knowledge Discovery*, co-editor with Hiroshi Motoda, 2001
- *Feature Transformation and Subset Selection*, co-editor with Hiroshi Motoda, *IEEE Intelligent Systems*, March/April, 1998.

CONFERENCE TUTORIAL

- *INFORMS Annual Meeting, October 2012*, Mining Social Media - A Brief Introduction, with Pritam Gundechar, Phoenix, AZ.
- *The First IEEE International Conference on Social Computing (SocialCom'09)*, Community Detection and Behavior Prediction for Social Computing, with Lei Tang and Nitin Agarwal.
- *The 14th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'08)*, Blogosphere: Research Issues, Applications, and Tools, with Nitin Agarwal.
- *SIAM Data Mining (SDM) 2007*, Dimensionality Reduction for Data Mining - Techniques, Applications, and Trends, with Lei Yu and Jieping Ye.
- *National Conference on AI (AAAI) 2005*, Downsizing High-Dimensional Data for High Performance, with Robert Stine.
- *Pacific Rim International Conference on AI (PRICAI) 1998*, Data Mining: Process and Techniques, with Bing Liu.

PROGRAM COMMITTEE MEMBER (RECENT AND SELECTED)

- *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD) 2000, 2006, 2007, 2008 (Senior PC member), 2009, 2010, 2011*
- *International Conference on Advances in Social Network Analysis and Mining, 2011*
- *SIAM International Conference on Data Mining (SDM) 2005, 2006, 2007, 2008, 2009 (Program Co-Chair), 2010 (Senior PC Member)*
- *ACM International Conference on Web Search and Data Mining (WSDM), 2010*

- *European Conference on Machine Learning/Practical Knowledge Discovery and Data mining (ECML/PKDD), 2008, 2010*
- *ACM Workshop on Social Network Mining and Analysis with KDD (SNAKDD), 2010.*
- *International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction (SBP), 2010, 2011*
- *IEEE International Conference on Social Computing (SocialCom), 2009, 2010*
- *IEEE International Conference on Data Mining (ICDM) 2001 - 2007, 2009, 2010, 2011*
- *International World Wide Web Conference (WWW), 2008, 2010*
- *International Conference on Pattern Recognition (ICPR), 2008, 2010*
- *Asian Conference on Machine Learning (ACML), 2009 (Area Chair), 2010 (Senior PC)*
- *Pacific Knowledge Acquisition Workshop (PKAW), 1998, 2002, 2004, 2010*
- *IEEE International Conference on Data Engineering Demo PC, 2009*
- *AAAI-09 Spring Symposium on Technosocial Predictive Analytics, 2009.*
- *IEEE International Conference on Granular Computing (GrC), 2006, 2008, 2009, 2010*
- *European Conference on Machine Learning/Practical Knowledge Discovery and Data Mining (ECML/PKDD), 2008, Antwerp, Belgium.*
- *ECML PKDD 2008 Workshop on New Challenges for Feature Selection in Data Mining and Knowledge Discovery (FSDM08), 2008, Antwerp, Belgium.*
- *International Workshop on Social Computing, Behavioral Modeling, and Prediction (SBP), 2008, 2009*
- *International Conference on Machine Learning (ICML) 2000, 2005, 2006, 2008*
- *Conference on Information and Knowledge Management (CIKM) 2006 - 2009*
- *Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD) 1997 - 2009*
- *National Conference on AI (AAAI) 2005 (Senior Member), 2007, 2008*
- *IEEE Symposium on Computer Intelligence and Data Mining (CIDM) 2007*
- *IEEE International Conference on Tools with Artificial Intelligence (ICTAI), 2006*
- *European Conference on Machine Learning (ECML) 2005*
- *International Conference, EC-Web, 2001 - 2007*
- *Asia Pacific Web Conference (APWeb), 2003 - 2005*
- *WebKDD, 2005, 2006, 2007, 2008*
- *Web-Age Information Management Conference (WAIM) 2001 - 2004, 2008*
- *ICML 2002 Workshop on Data Mining Lessons Learned*

- *SIAM 2002 Workshop on Web Analytics*
- *ICDM Workshop on Active Mining, 2002 - 2004*

REVIEWING FOR JOURNALS

- *Data Mining and Knowledge Discovery*
- *Journal of AI Research*
- *Journal Machine Learning Research*
- *Machine Learning*
- *Journal of Computer and System Sciences*
- *Bioinformatics*
- *Journal of Intelligent Material Systems and Structures*
- *IEEE IEEE/ACM Trans on Computational Biology and Bioinformatics*
- *IEEE Trans. on Pattern Recognition and Machine Intelligence*
- *IEEE Trans. on Knowledge and Data Engineering*
- *IEEE Trans. on Systems, Man, and Cybernetics*
- *IEEE Trans. on Neural Networks*
- *IEEE Trans. on Evolutionary Computing*
- *IEEE Trans. on Signal Processing*
- *Pattern Recognition*
- *Pattern Recognition Letters*
- *Knowledge and Information Systems*
- *Neurocomputing*
- *Applied Intelligence*
- *Multimedia Systems Journal*
- *ASME Trans. Journal of Computing and Information Science in Engineering*
- *Computers and Mathematics with Applications*
- *Decision Support Systems*
- *New Generation Computing*
- *Information Processing Letters,*
- *Journal of Decision Support Systems,*

- *International Journal of Computer Science and Applications*
- *Journal of Intelligent Information Systems*
- *International Journal of Adaptive Control and Signal Processing*
- *Informatica*
- *Data and Knowledge Engineering (DKE)*

REVIEWING FOR BOOKS

- *Chapman & Hall/CRC*
- *John Wiley & Sons, Inc.*
- *Addison-Wesley*
- *Springer*
- *IEEE Press*

GRANT PROPOSAL REVIEW/PANEL

- *National Science Foundation, 2002, 2003, 2004, 2007, 2009, 2010, 2011*
- *AFOSR, 2009, 2011*
- *ARO, 2009, 2011*
- *NASA, 2004*
- *Hong Kong Research Grants Council, 2001, 2002, 2005-2011*
- *Science Foundation Ireland, 2001*

UNIVERSITY SERVICES

- *ASU Fulton Schools of Engineering, Committee on the Quality of Instruction, Spring 2012 -*
- *ASU Fulton Schools of Engineering, Executive Committee, Fall 2011 -*
- *ASU Fulton Schools of Engineering, Curriculum Committee, Fall 2010 -*
- *ASU CIDSE Graduate Program Committee, Fall 2010 -*
- *ASU CIDSE Ad-hoc Committee for CSE Operating Procedures, Fall 2010 - Spring 2011*
- *ASU CIDSE Personnel Committee, Chair, Fall 2009; Member Spring 2010*
- *ASU Fulton School of Engineering, Recruitment Committee, Fall 2009 - Spring 2010*
- *ASU University Senate 2007 - 2009*
- *ASU CSE Personnel Committee, Fall 2001, Spring 2002, 2008 -*

- *ASU CSE Graduate Admission Committee Spring 2000 - Spring 2001, Fall 2002, Spring 2003 - Spring 2005 (Chair), Spring 2008 -*
- *ASU CSE Executive Committee 2003 - 2004, 2005 - 2007, Spring 2008.*
- *ASU CSE TA Selection Committee, Spring, 2002,*
- *ASU CSE Faculty Sabbatical Committee, Fall 2000 - Spring 2003,*
- *ASU Fulton School Senate, Fall 2003 - Fall 2006*

The following duties were performed at National University of Singapore (1994 - 1999)

Curriculum Committee	<i>Member, Advisor for the field of Humans and Computers.</i>
Student Exchange Program Coordinator	<i>establishing exchange programs with leading overseas universities, sending and receiving exchange students.</i>
Student Industrial Attachment Program	<i>liason with industrial organizations for student final year on-site projects.</i>
Work Improvement Teams	<i>constantly improving the working environment.</i>
Quotation/Tender Opening Committee	<i>checking all school equipment purchasing quotations.</i>
Social and Recreation Committee	<i>organizing activities to promote better relationship among staff and students.</i>

PROFESSIONAL ASSOCIATIONS

- *American Association of AI (AAAI)*
- *Association for Computing Machinery (ACM), Distinguished Scientist*
- *Institute of Electrical and Electronics Engineers (IEEE), Fellow*
- *American Society for Engineering Education (ASEE)*
- *Society of Industrial and Applied Mathematics (SIAM)*