

CURRICULUM VITAE
ANUPAM JOSHI

Department of Computer Science and Electrical Engineering
University of Maryland Baltimore County
325 ITE Building
1000 Hilltop Circle
Baltimore, MD 21250
Phone: 410-455-2590
Fax: 410-455-3969
<http://www.cs.umbc.edu/~joshi/>

Education:

Ph.D., Computer Science	1993	Purdue University
M.S., Computer Science	1991	Purdue University
B.Tech., Electrical Engineering	1989	Indian Institute of Technology, Delhi

Experience in Higher Education:

2005 – date	University of Maryland, Baltimore County, Professor (tenured), Comp. Sc. Elec. Eng. On sabbatical in AY 05-06, spent partly at IBM IRL, IIT-B On partial leave AY 08-09 at IBM IRL
2001 – 2005	University of Maryland, Baltimore County, Assoc. Professor (tenured), Comp. Sc. Elec. Eng.
1998 – 2001	University of Maryland, Baltimore County, Asst. Professor, Comp. Sc. Elec. Eng.
2000 – 2003	UMIACS, Joint Appointment
1996 – 1998	University of Missouri, Asst. Professor, Comp. Eng. Comp. Sc.
1993 – 1996	Purdue University, Visiting Asst. Professor, Computer Sciences
1992 – 1993	Purdue University, Teaching Assistant, Computer Sciences
1991 – 1992	Purdue University, David Ross (PRF) Fellow, Computer Sciences
1989 – 1991	Purdue University, Teaching Assistant, Computer Sciences

Experience in Other than Higher Education:

Sep08 -	Visiting Scientist at IBM India Research Labs
Nov 05-Mar 06	Sabbatical visitor at IBM India Research Labs
1988 – 1988	IDM Ltd., Bombay, Summer Intern (R&D Division)

Research Interests

- Pervasive, Mobile, Sensor and Networked Computing
 - Information and Data Management, Security, Networking
 - Context Awareness, especially in Healthcare Delivery
- Semantic Web, Web Mining and Personalization
 - Detecting Influence, Trust, and Bias in Social media
- Policies, Security, Trust, and Privacy in Open Distributed systems
- Distributed AI (MultiAgent systems), Neuro-Fuzzy Systems, Learning and Adaptation, HPCC

Research Support:

- 2008-2010 *Policy-based WAN Configuration and Management*, \$224K, DARPA (Phase II STTR with Shared Spectrum Company), PI.
- 2008-2013 *A Framework for Managing the Assured Information Sharing Lifecycle*, Multi-disciplinary University Research Initiative (MURI), \$7.5M, AFOSR, CoPI (Tim Finin PI). UMBC is the lead institution. The amount is the total across all institutions with options. The UMBC share is about 25%
- 2008-2009 *Modeling influence, bias and information flow in Social Media*, \$60K, Google, CoPI (Tim Finin, PI)
- 2008-2009 *Modeling bias, influence and information flow in social media*, \$55K, Microsoft Research, CoPI (Tim Finin, PI)
- 2007-2008 CT-T: Collaborative Research: A Semantic Framework for Policy Specification and Enforcement in a Need to Share Environment, \$50,000, National Science Foundation, CoPI (Tim Finin PI) (separate funding to UTD and UTSA for joint work)
- 2007-2009 MC2 (Muticore Computational Center), \$***,*** (exact amount confidential), IBM, CoPI (M. Halem PI).
- 2007 Database security in Ad-Hoc Networks, \$40K, Agnik LLC (STTR Phase 1 from DoD), PI
- 2007 SPINTEL:Information Quality for the Intelligence Analysis, \$40K, Lockheed Martin, CoPI (Tim Finin, PI).
- 2007-2008 Context Aware Surgical Training, \$168K, University of Maryland Medical System, coPI (Tim Finin, PI).
- 2006-2007 PWAN – Policy Driven Adaptive Networks, \$40K, CoPI SharedSpectrum, Inc., STTR Phase 1 from DARPA
- 2006 Faculty Award, \$20,000, PI, IBM
- 2005-2007 Automatically creating an Electronic Medical Encounter Record, \$200000, University of Maryland Medical System (DARPA Traumapod subcontract), co PI
- 2004 Shared University Research Grant, \$88,000 (approx), CoPI (M. Halem, PI), IBM.
- 2003-2008 ITR-SemDis: Discovering Complex Relationships in Semantic Web, \$453,417, National Science Foundation, P.I.
- 2003-2008 ITR: Science on the Semantic Web: Prototypes in Bioinformatics, \$2,350,000, National Science Foundation, Co-PI (T. Finin, PI. Other CoPIs from UMCP, UCSD, UCSF)
- 2003-2006 Trust and Security for the Semantic Web, \$240,000, National Science Foundation, CoPI (T. Finin, PI)
- 2003 Equipment Grant, \$125,000 (approx), CoPI (Y. Yesha, PI), Cisco Systems
- 2003 Shared University Research Grant, \$250,000 (approx), CoPI (Y. Yesha, PI), IBM.
- 2002-2005 Subcontract for Security in Pervasive Computing, \$73,596, BAH/NIST, P.I.
- 2003-2004 An Eclipse IDE for Security, Trust and Privacy Policies, IBM, \$40,000, P.I.
- 2002-2003 UPP Award, \$52,000, IBM
- 2002 Research Support for Pervasive Computing, \$15,000, Fujitsu Labs of America, P.I.
- 2002-2005 Profile Driven Architecture for Data Management in Pervasive Environments, \$153,190, National Science Foundation, P.I.

- 2002-2005 Agent Oriented Approaches to a Ubiquitous Grid, \$480,726, National Science Foundation, P.I.
- 2002 Support for Organizing the 2002 IDM PIs Meeting, \$224,905, National Science Foundation, Co-PI
- 2001 A Simulator to evaluate/prototype Local Area and Personal Area Wireless Network protocols and products, \$79,800, AetherSystems Inc, Co-PI (D. Phatak, PI)
- 2000 Disconnected Web Browsing, \$69,332, AetherSystems Inc, P.I.
- 2000 Home Automation Service Discovery, \$132,720, AetherSystems Inc, Co-PI (T. Finin, PI)
- 2000-2004 Dynamic Negotiation Agents in Mobile Computing, \$174,000, National Science Foundation, P.I.
- 2000-2005 DAML Program, \$1,742,524, DARPA, Co-PI (T. Finin PI, Two other CoPIs from JHU-APL and MIT).
- 2000 An Expertise Recommender using Web Mining, \$58,089, NASA/USRA, P.I.
- 2000 Data Analysis for Intrusion Detection, \$15,000, Department of Defence, Co-PI. (C. Nicholas, PI)
- 1999-2004 CAREER: MultiAgent Systems to Support Mobile Information Access, \$213,952, National Science Foundation, P.I.
- July 1999 Summer Fellowship, UMBC Graduate School, \$2500,
- 1998-2002 Web Mining and Personalization Using Robust Fuzzy Clustering, \$163,713, National Science Foundation, PI (Separate Collaborative award to colleague at Colorado School of Mines)
- 1998-99 ILI: Distributed Systems Lab, \$91,960 (\$41,460 from NSF, \$50,000 match), National Science Foundation, P.I.
- 1997-1999 Ubiquitous Computing to Support Humanitarian Demining, \$30,815, Research Board - University of Missouri, P.I.
(This award was transferred to H. Shi at my request when I left the University of Missouri)
- 1997-1999 UPP Faculty Development Award - Intelligent Agent Proxies to support Mobile Computing, \$80,000 + Equipment, IBM Corporation, P.I.
- 1998-1999 A vBNS Connection for the University of Missouri-Columbia, \$350,000(NSF) + \$600,000 (Cost Share), National Science Foundation, Faculty Associate,
- 1997 Faculty International Travel Award, \$600, University of Missouri
- 1995 Unrestricted grant to support research in Mobile Computing, \$10,000, Intel Corporation, Co-PI.
- 1995 SciencePad Project, \$90,000, Intel Corporation, Co-PI .
- 1995 Equipment award of for "Purdue-on-Line", over \$150,000, IBM Corporation, co-PI
- 1994-1996 NSF (CISE) Research Associate Award given to E. N. Houstis to support my work in ubiquitous, intelligent scientific computing, \$46,200 , National Science Foundation
- 1994 Special Purpose Grants in Science and Engineering - Classroom of the future project, \$22,000, AT&T Foundation, Co-PI

Research Support for Students

- NSF Graduate Fellowship for Patricia Ordonez, 2007-
- IBM Fellowship from Toronto CAS for Dipanjan Chakraborty, \$78,000, 2001-2003
- Provost's UGRA Award for Ramya Ramakrishnan, \$1500, 2001-2002.

Publications:Books

1. Data Mining: Next Generation Challenges and Future Directions,. (H. Kargupta, A. Joshi, K. Sivakumar, and Y. Yesha, Eds.), AAAI/MIT Press 2004
2. Ahmed Elmagarmid, Haitao Jiang, Abdelsalam Helal, Anupam Joshi, Magdy Ahmed, Video Database Systems: Issues, Products and Applications, 1997, Kluwer Academic Publishers.

Book Chapters

1. Jim Parker, Anand Patwardhan, Filip Perich, **Anupam Joshi**, and Tim Finin, Trust in Pervasive Computing, Mobile Middleware, pp 473-496, CRC Press, February 2006.
2. Filip Perich, **Anupam Joshi**, and Rada Chirkova, Data Management for Mobile Ad-Hoc Networks, Enabling Technologies for Wireless e-Business Applications, W Kou, and Yelena Yesha (Eds), Springer, July 2005
3. Harry Chen, Tim Finin, and **Anupam Joshi**, The SOUPA Ontology for Pervasive Computing, Ontologies for Agents: Theory and Experiences, Valentina Tamma, Stephen Cranefield, and Tim Finin (Eds), Springer, July 2005
4. Jeffery Undercoffer and **Anupam Joshi**, On Data Mining, Semantics, and Intrusion Detection: What to dig for and Where to find it, in Data Mining: Next Generation Challenges and Future Directions,. (H. Kargupta, A. Joshi, K. Sivakumar, and Y. Yesha, Eds.), pp. 437-460, AAAI/MIT Press 2004
5. Sasi Avancha, Jeffrey Undercoffer, **Anupam Joshi** and John Pinkston, Security for Sensor Networks, in *Wireless Sensor Networks*, C. S. Raghavendra, Krishna M. Sivalingam and Taieb Znati (Eds), Kluwer Academic Publishers, May 2004,
6. Lalana Kagal, James Parker, Harry Chen, **Anupam Joshi**, and Tim Finin, Security, Trust and Privacy in Mobile Computing Environments, in *Handbook of Mobile Computing*, Imad Mahgoub and Mohammad Ilyas (eds.), CRC Press, 2004,
7. Sasikanth Avancha, Dipanjan Chakraborty, Filip Perich, and **Anupam Joshi**, Data and Services for Mobile Computing, in *Handbook of Internet Computing*, Munindar Singh(Ed.), pp 36.1 – 36.16, CRC Press, 2004
8. **Anupam Joshi**, Tim Finin, and Yelena Yesha, Me--Services, A Framework for Secure and Personalized Discovery, Composition and Management of Services in a Pervasive Environment, in *Web Services, E-Business and the Semantic Web (LNCS 2512)*, C. Bussler, R. Hull, S. McIlraith, M.E. Orłowska, B. Pernici, J. Yang (Editors), Springer Verlag, 2002, pp. 248-259. (note: Extended version of a paper presented at WES Workshop, CAiSE 2002)
9. **Anupam Joshi**, Z. Jiang, Retriever: Improving Web Search Engine Results Using Clustering, in *Managing Business with Electronic Commerce: Issues and Trends*, (A. Gangopadhyay, Editor), Idea Press, 2001.
10. **Anupam Joshi**, N. Ramakrishnan, E. N. Houstis, MultiAgent Recommender Systems in Networked Scientific Computing, in *Enabling Technologies for Computational Science - Frameworks, Middleware and Environments*, Kluwer Academic, 2000.
11. E. Houstis, J.R. Rice, N.Ramakrishnan, T. Drashansky, S.Weerawarana, **Anupam Joshi**, and C. Houstis, Multidisciplinary Problem Solving Environments for Computational Science, in *Advances in Computers* (M. Zelkowitz, Ed) vol 46, pp 402-438, New York, Academic Press, 1998.

Journals

1. **Anupam Joshi**, Tim Finin, Lalana Kagal, Jim Parker and Anand Patwardhan, Security Policies and Trust in Ubiquitous Computing, *Philosophical Transactions A, The Royal Society of London*, **366**:1881, pp 3769-3780, October 2008.
2. Boanerges Aleman-Meza, Meenakshi Nagarajan, Li Ding, Amit Sheth, Budak Arpinar, **Anupam Joshi**, and Tim Finin, Semantic Analytics on Social Networks: Experiences in Addressing the Problem of Conflict of Interest Detection, *ACM Transactions on the Web*, **2**:1, 2008 (extended version of WWW05 paper).
3. Amit Anil Nanavati, Rahul Singh, Dipanjan Chakraborty, Koustuv Dasgupta, Sougata Mukherjea, Gautam Das, Siva Gurumurthy, **Anupam Joshi**, Analyzing the Structure and Evolution of Massive Telecom Graphs, *IEEE Trans. Knowl. Data Eng.*, 20(5): pp 703-718 (2008)
4. Akshay Java, Sergei Nirneburg, Marjorie McShane, Timothy Finin, Jesse English and **Anupam Joshi**, Using a Natural Language Understanding System to Generate Semantic Web Content, *International Journal on Semantic Web and Information Systems*, 3(4), 2007.
5. Tim Finin, **Anupam Joshi**, Pranam Kolari, Akshay Java, Anubhav Kale and Amit Karandikar, The Information ecology of social media and online communities, *AI Magazine*, accepted for publication, to appear 2008.
6. Anand Patwardhan, Jim Parker, Michaela Iorga, **Anupam Joshi**, Tom Karygianis, and Yelena Yesha, Threshold-based Intrusion Detection in Ad Hoc Networks and Secure AODV, *Ad Hoc Networks Journal (ADHOCNET)*, **6**:4, pp 578-599, 2008.
7. Sheetal Agarwal, **Anupam Joshi**, Tim Finin, Yelena Yesha, and Tim Ganous, A Pervasive Computing System for the Operating Room of the Future, *ACM/Kluwer Journal on Mobile Networking and Applications*, **12**:2-3, pp 215-228, 2007.
8. Lalana Kagal, Tim Finin, **Anupam Joshi**, and Sol Greenspan, Security and Privacy Challenges in Open and Dynamic Environments, *IEEE Computer*, **39**:6, pp 89-91, June 2006
9. Anand Patwardhan, Filip Perich, **Anupam Joshi**, Tim Finin, and Yelena Yesha, Querying in Packs: Trustworthy Data Management in Ad Hoc Networks, *International Journal of Wireless Information Networks*, **13**:4, Oct 2006
10. Dipanjan Chakraborty, **Anupam Joshi**, and Yelena Yesha, Integrating service discovery with routing and session management for ad-hoc networks, *Ad Hoc Networks*, **4**:2, pp 204-224, March 2006.
11. Dipanjan Chakraborty, **Anupam Joshi**, Yelena Yesha, and Tim Finin, Toward Distributed Service Discovery in Pervasive Computing Environments, *IEEE Transactions on Mobile Computing*, **5**:2, pp 97-112, February 2006.
12. Avinash Sheno, Yelena Yesha, Yaacov Yesha, Anupam Joshi, A Framework for Specification and Performance Evaluation of Service Discovery Protocols In Mobile Ad-Hoc Networks, *Ad Hoc Networks Journal (ADHOCNET)*, **4**:1, 2006.
13. Tim Finin, Li Ding, Lina Zhou, and **Anupam Joshi**, Social Networking on the Semantic Web, *The Learning Organization*, **12**:5, pp 418-435, December 2005
14. Li Ding, Tim Finin, **Anupam Joshi**, Yun Peng, Rong Pan, and Pavan Reddivari, Search on the Semantic Web, *IEEE Computer*, **10**:38, pp 62-69, October 2005,
15. Filip Perich, **Anupam Joshi**, Yelena Yesha, and Tim Finin, Collaborative Joins in a Pervasive Computing Environment, *VLDB Journal*, **14**:2, pp 182-196, April 2005
16. Li Ding, Tim Finin, and **Anupam Joshi**, Analyzing Social Networks on the Semantic Web, *IEEE Intelligent Systems*, **20**:1, January 2005
17. Dipanjan Chakraborty, **Anupam Joshi**, Tim Finin, and Yelena Yesha, Service Composition for Mobile Environments, *ACM/Kluwer Journal on Mobile Networking and Applications, Special Issue on Mobile Services*, **10**:4, January 2005
18. Kamdar, T., and **Joshi, Anupam**, Using Incremental Weblog Mining to Create Adaptive Web Servers, in *Intl. Journal of Digital Libraries*, **5**:2, pp 133-150, 2005.

19. Li Ding, Tim Finin and **Anupam Joshi**, Analyzing Social Networks on the Semantic Web, *IEEE Intelligent Systems (Trends and Controversies)*, 2004 (invited paper).
20. Harry Chen, Tim Finin, **Anupam Joshi**, Filip Perich, Dipanjan Chakraborty, and Lalana Kagal, Intelligent Agents Meet the Semantic Web in Smart Spaces, *IEEE Internet Computing*, **8**:6, November/December, 2004 (Invited Paper)
21. Pranam Kolari and **Anupam Joshi**, Web Mining - Research and Practice, *IEEE Computing in Science and Engineering - Web Engineering Special Issue*, **6**:4, July/August 2004, pp 49-53.
22. Filip Perich, **Anupam Joshi**, Tim Finin, and Yelena Yesha, On Data Management in Pervasive Computing Environments, *IEEE Transactions on Knowledge and Data Engineering*, **16**(5), pp 621-634, May 2004.
23. Harry Chen, Tim Finin, **Anupam Joshi**, An Ontology for Context-Aware Pervasive Computing Environments, *Knowledge Engineering Review*, **18**:3, pp197-207, 2003.
24. Jeffrey L Undercoffer, **Anupam Joshi**, Tim Finin, John Pinkston, Using DAML+OIL to Classify Intrusive Behaviors, *Knowledge Engineering Review*, **18**:3, pp 221-241, 2003.
25. Olga Ratsimor, Dipanjan Chakraborty, **Anupam Joshi**, Timothy Finin, Yelena Yesha, Alliance-based Service Discovery for Agents in Ad-hoc Networks, *ACM/Kluwer Journal on Mobile Networking and Applications (MONET)*, **9**:6, pp 679-692, 2004.
26. Sasikanth Avancha, Jeffrey L Undercoffer, **Anupam Joshi**, and John Pinkston, Secure Sensor Networks for Perimeter Protection, *The International Journal of Computer and Telecommunications Networking (COMNET)*, **43**:4, pp 421-435, Nov 2003
27. Avancha, S., D'Souza, P., Perich, F., **Joshi, Anupam**, Yesha, Y., P2P M-Commerce in Pervasive Environments, *ACM SIGecom Exchanges*, Vol. **3**, No. 4, pp. 1-9, January 2003
28. Tim Finin, **Anupam Joshi**, Lalana Kagal, Olga Ratsimor, Sasikanth Avancha, Vlad Korolev, Harry Chen, Filip Perich, R. Scott Cost, Intelligent Agents for Mobile and Embedded Devices, *International Journal of Cooperative Information Systems*, Vol. **11**, Nos. 3 & 4 (September and December 2002) pp 205-230. (Extended version of Timothy Finin, Joshi, Anupam, Lalana Kagal, Olga Ratsimor, Vlad Korolev, and Harry Chen, Information Agents for Mobile and Embedded Devices Fifth International Workshop Cooperative Information Agents, Modena, Italy, September 6-8, 2001.)
29. Avancha, S., **Joshi, Anupam**, Finin, T., Enhanced Service Discovery in Bluetooth, *IEEE Computer*, Vol. **35**, No. 6, pp 96-99, June 2002
30. Kagal, Lalana, Finin, Tim, **Anupam Joshi**, Trust-Based Security in Pervasive Computing Environments, *IEEE Computer*, December 2001
31. Avancha, S., Korolev, V., **Joshi, Anupam**, Finin, T., and Yesha, Y., On Experiments with a Transport Protocol for Pervasive Computing Environments, *Computer Networks*, **40**:4, pp 513-533, Nov/Dec 2002.
32. Kagal, L., Korolev, V., Avancha, S., **Joshi, Anupam**, Finin, T. and Yesha, Y., Centaurus: An infrastructure for Service Management in Ubiquitous Computing, *ACM-Kluwer Journal of Wireless Networks (WINET)* **8**(6), pp 619-635, 2002.
33. Jeffrey Undercoffer, Filip Perich, Andy Cedilnik, Lalana Kagal, and **Joshi, Anupam**, A Secure Infrastructure for Service Discovery and Access in Pervasive Computing, *ACM - Kluwer Mobile Networks and Nomadic Applications(MONET)* : Special Issue on Security in Mobile Computing Environments, **8**:2, pp 113-125, 2003.
34. Joshi, K., **Joshi, Anupam**, Yesha, Y., On Using a Warehouse to Analyze Web Logs, accepted for publication in *Distributed and Parallel Databases*, 2002.
35. R. Scott Cost, Tim Finin, **Joshi, Anupam**, Yun Peng, Charles Nicholas, Filip Perich, Harry Chen, Lalana Kagal, Youyong Zou, and Sovrin Tolia, ITtalks: A Case Study in the Semantic Web and DAML+OIL, *IEEE Intelligent Systems*, January/February, 2002.
36. Lalana Kagal, Tim Finin, and **Joshi, Anupam**, Moving from Security to Distributed Trust in Ubiquitous Computing Environments, *IEEE Computer* **34**:12, pp 154-157, December, 2001

37. Krishnapuram, R., **Joshi, Anupam**, Nasraoui, O., and Yi, L., "Low Complexity Fuzzy Relational Clustering Algorithms for Web Mining", *IEEE Trans. Fuzzy Systems*, **9**:4, pp 595-607, 2001.
38. Chen, H., **Joshi, Anupam**, Finin, T., "Dynamic Service Discovery for Mobile Computing: Intelligent Agents meet Jini in the Aether", *Baltzer Science Journal on Cluster Computing*, Special Issue on Advances in Distributed and Mobile Systems and Communications, **4** :4, pp 343-354, October 2001.
39. Nasraoui, O., Frigui, H., Krishnapuram, R. and **Joshi, Anupam**, Extracting Web User Profiles using Relational Competitive Fuzzy Clustering, *Intl. J. Artificial Intelligence Tools*, **9** :4, 2000
40. **Joshi, Anupam**, "On Proxy Agents, Mobility, and Web Access", *ACM - Baltzer Mobile Networks and Nomadic Applications(MONET)*, Special Issue on Software Architectures for Mobile Applications, **5** :4, January 2000.
41. Graham, S., **Joshi, Anupam**, Pizlo, Z., "The Travelling Salesman Problem: A Hierarchical Model", *Memory & Cognition*, **28**, pp 1191-1204, 2000.
42. Jiang, H., Helal, A., Elmagarmid, A.K., **Joshi, Anupam**, ``Scene Change Detection for Video Database Management Systems - A Survey", *ACM Multimedia Systems Journal*, **6**, 1998.
43. **Joshi, Anupam**, Ramakrishnan, N., and Houstis, E.N., "MultiAgent Systems to Support Networked Scientific Computing" *IEEE Internet Computing*, **2**:3, pp 69-83, 1998.
44. **Joshi, Anupam**, Drashanksy, T., Rice, J.R., Weerawarana, S. and Houstis, E.N., ``Multiagent Simulation of Complex Heterogeneous Models in Scientific Computing", *IMACS Math. and Comp. in Simulation*, **44**, 1997, pp. 43-59.
45. Weerawarana, S., **Joshi, Anupam**, Houstis, E., Rice, J.R. and Catlin, A., ``Notebook interfaces for networked scientific computing: Design and WWW Implementation", *Concurrency: Practice & Experience*, **9**:7, 1997, pp. 675-695.
46. Weerawarana, S., Houstis, E., Rice, J.R., **Joshi, Anupam** and Houstis, C., ``PYTHIA: A Knowledge Based System to Select Scientific Algorithms", *ACM Trans. Mathematical Software*, **22**:4, pp 447-468,1997.
47. Drashansky, T., Weerawarana, S, **Joshi, Anupam**, Weerasinghe, R. and Houstis, E., "Software Architecture of Ubiquitous Scientific Computing Environments", *ACM - Baltzer Mobile Networks and Nomadic Applications (MONET)*, **1**:4, 1996.
48. **Joshi, Anupam**, Ramakrishnan, N., Rice, John R., and Houstis, Elias, ``On Neurobiological, NeuroFuzzy and Statistical Pattern Recognition Techniques", *IEEE Trans. Neural Networks*, **8** :1, pp, 18-31, 1996.
49. **Joshi, Anupam**, Weerawarana, S., Houstis, E., Rice, J.R., Ramakrishnan, N, ``Neuro-Fuzzy Support for Problem Solving Environments: A step towards automated solution of PDEs", *IEEE Computational Science & Engineering*, Spring 1996, pp 44-56.
50. Drashansky, T., **Joshi, Anupam**, Weerawarana, S. and Houstis, E., ``SciencePad: Scientific Computing in a Ubiquitous Environment", *Intl. J. Microcomputer Applications*, **15**:3,1996 .
51. **Joshi, Anupam** and Lee, C.H. ``Correspondence problem in range data and some inelastic uses of elastic nets", *IEEE Trans. Neural Networks* **6**:3, pp 716-723, 1995.
52. Lee, C.H. and **Joshi, Anupam**, ``On correspondence, Line tokens and Missing Tokens", *Pattern Recognition***28**:11, pp. 1751-1764, 1995.
53. Lee, C.H. and **Joshi, Anupam**, ``Correspondence problem in Image Sequence Analysis", *Pattern Recognition***26** :1, pp. 47-61, 1993.
54. **Joshi, Anupam** and Lee, C.H. ``Backpropagation learns Marr's operator", *Biological Cybernetics***70**:1, pp. 65-73 , 1993.

Refereed papers in conferences and workshops

1. Wenjia Li, Jim Parker, and **Anupam Joshi**, Security through Collaboration in MANETs, Proceedings of The 4th International Conference on Collaborative Computing: Networking, Applications and Worksharing (CollaborateCom 2008), Orlando, FL.
2. Sheetal Gupta, **Anupam Joshi**, and Tim Finin, A Framework for Secure Knowledge Management in Pervasive Computing, Proceedings of the Workshop on Secure Knowledge Management (SKM 2008), 3-4 November 2008, Richardson, TX.
3. Lushan Han, Tim Finin, Cynthia Parr, Joel Sachs, and **Anupam Joshi**, RDF123: from Spreadsheets to RDF, accepted for *Seventh International Semantic Web Conference*, 26-31 October 2008, Karlsruhe, DE.
4. Akshay Java, **Anupam Joshi** and Tim Finin, Detecting Communities via Simultaneous Clustering of Graphs and Folksonomies, *10th Workshop on Web Mining and Web Usage Analysis, held in conjunction with The 14th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2008)*, 24-27 August 2008, Las Vegas NV
5. Sheetal Gupta, **Anupam Joshi**, and Anand Patwardhan, Query Distribution Estimation and Predictive Caching in Mobile Ad Hoc Networks, *Proceedings of the Seventh International ACM Workshop on Data Engineering for Wireless and Mobile Access (in conjunction with SIGMOD)*, June 2008, Vancouver.
6. Tim Finin, Anupam Joshi, Lalana Kagal, Jianwei Niu, Ravi Sandhu, William Winsborough, and Bhavani Thuraisingham, ROWLBAC - Representing Role Based Access Control in OWL, *Proceedings of the 13th ACM symposium on Access Control Models and Technologies*, 73-82, ACM Press New York, June 2008
7. Palanivel Kodeswaran, Sethuram Kodeswaran, **Anupam Joshi**, and Tim Finin, Enforcing security in semantics driven policy based networks, *Proceedings of the 24th International Conference on Data Engineering Workshops, Secure Semantic Web*, 490-497, April 2008.
8. Koustuv Dasgupta, Dipanjan Chakraborty, Amit Nanavati, Sougata Mukherjea, Rahul Singh, Balaji Viswanathan **Anupam Joshi**, Social Ties and their Relevance to Churn in Mobile Telecom Networks, *EDBT 2008 (Industrial track)*, pp 668-677.
9. Zareen Syed, Tim Finin, and **Anupam Joshi**, Wikipedia as an Ontology for Describing Documents, *Proceedings of the Second International Conference on Weblogs and Social Media*, AAAI Press, March 2008.
10. Amit Karandikar, Akshay Java, **Anupam Joshi**, Tim Finin, Yelena Yesha, and Yaacov Yesha, Second Space: A Generative Model For The Blogosphere, (poster paper), *Proceedings of the Second International Conference on Weblogs and Social Media*, AAAI Press, March 2008
11. Akshay Java, **Anupam Joshi**, and Tim Finin, Approximating the Community Structure of the Long Tail, (poster paper), *Proceedings of the Second International Conference on Weblogs and Social Media*, AAAI Press, March 2008.
12. Tim Finin, **Anupam Joshi**, Lalana Kagal, Jianwei Niu, Ravi Sandhu, William H Winsborough, and Bhavani Thuraisingham, Role Based Access Control and OWL, *Proceedings of the Fourth OWL: Experiences and Directions Workshop (OWLED)*, April 2008.
13. **Anupam Joshi**, Tim Finin, Akshay Java, Anubhav Kale, and Pranam Kolari, Web 2.0 Mining: Analyzing Social Media, *NSF Symposium on Next Generation of Data Mining and Cyber-Enabled Discovery for Innovation*, October 2007.
14. Sandor Dornbush and **Anupam Joshi**, StreetSmart Traffic: Discovering and Disseminating Automobile Congestion Using VANET's, *in Proceedings 65th IEEE Vehicular Technology Conference*, Dublin, April, 2007.
15. Akshay Java, Pranam Kolari, [Tim Finin](#), **Anupam Joshi**, and Tim Oates, Feeds That Matter: A Study of Bloglines Subscriptions, in *Proceedings of the International Conference on Weblogs and Social Media (ICWSM 2007)*, Boulder, March 2007.
16. Anubhav Kale, Amit Karandikar, Pranam Kolari, Akshay Java, **Anupam Joshi**, and Tim Finin, Modeling Trust and Influence in the Blogosphere Using Link Polarity, in *Proceedings of the International Conference on Weblogs and Social Media (ICWSM 2007)*, Boulder, March 2007.

17. Pranam Kolari, Tim Finin, Akshay Java, and **Anupam Joshi**, Towards Spam Detection at Ping Servers, in Proceedings (poster) of the *International Conference on Weblogs and Social Media (ICWSM 2007)*, Boulder, March 2007.
18. Sandor Dornbush, Jesse English, Tim Oates, Zary Segall, and **Anupam Joshi**, XPod: A Human Activity Aware Learning Mobile Music Player, in *Proceedings of Workshops of the 20th International Joint Conference on Artificial Intelligence*, January 2007.
19. Akshay Java, Pranam Kolari, Tim Finin, James Mayfield, **Anupam Joshi**, and Justin Martineau, BlogVox: Separating Blog Wheat from Blog Chaff, in *Proceedings of the Workshop on Analytics for Noisy Unstructured Text Data, 20th International Joint Conference on Artificial Intelligence (IJCAI-2007)*, January 2007
20. Pavan Reddivari, Tim Finin, and **Anupam Joshi**, Policy-Based Access Control for an RDF Store, in *Proceedings of the IJCAI-2007 Workshop on Semantic Web for Collaborative Knowledge Acquisition*, January 2007.
21. Amit Anil Nanavati, Siva Gurumurthy, Gautam Das, Dipanjan Chakraborty, Koustuv Dasgupta, Sougata Mukherjea, **Anupam Joshi**, On the structural properties of massive telecom call graphs: findings and implications, *ACM CIKM 2006*, pp 435-444, Nov 2006.
22. Anand Patwardhan, **Anupam Joshi**, Tim Finin, and Yelena Yesha, A Data Intensive Reputation Management Scheme for Vehicular Ad Hoc Networks, in *Proceedings of the Second International Workshop on Vehicle-to-Vehicle Communications*, July 2006.
23. Pranam Kolari, Akshay Java, Tim Finin, Tim Oates, and **Anupam Joshi**, Detecting Spam Blogs: A Machine Learning Approach, in *Proceedings of the 21st National Conference on Artificial Intelligence (AAAI 2006)*, July 2006
- 24.** Boanerges Aleman-Meza, Meenakshi Nagarajan, Cartic Ramakrishnan, Amit Sheth, Budak Arpinar, Li Ding, Pranam Kolari, **Anupam Joshi**, and Tim Finin, Semantic Analytics on Social Networks: Experiences in Addressing the Problem of Conflict of Interest Detection, in *Proceedings of the 15th International World Wide Web Conference*, May 2006 (**nominated for best paper**)
25. Sethuram Balaji Kodeswaran, **Anupam Joshi**, Content and Context Aware Networking Using Semantic Tagging, *Proc. ICDE Workshops 2006*, Atlanta.
26. Jim Parker, Anand Patwardhan, and Anupam Joshi, Cross-layer Analysis for Detecting Wireless, in *Proceedings of IEEE Consumer Communications and Networking Conference Special Sessions*, January 2006
27. Anand Patwardhan, Filip Perich, **Anupam Joshi**, Tim Finin, and Yelena Yesha, Active Collaborations for Trustworthy Data Management in Ad Hoc Networks, in *Proceedings of the 2nd IEEE International Conference on Mobile Ad-Hoc and Sensor Systems*, November 2005
28. Li Ding, Rong Pan, Tim Finin, **Anupam Joshi**, Yun Peng, and Pranam Kolari, Finding and Ranking Knowledge on the Semantic Web, in Proceedings of the 4th International Semantic Web Conference, November 2005
29. Li Ding, Tim Finin, **Anupam Joshi**, Yun Peng, Paulo Pinheiro da Silva, and Deborah L. McGuinness, Tracking RDF Graph Provenance using RDF Molecules, in *Proceedings of the 4th International Semantic Web Conference*, November 2005
30. Tim Finin, Li Ding, Rong Pan, **Anupam Joshi**, Pranam Kolari, Akshay Java, and Yun Peng, Swoogle: Searching for knowledge on the Semantic Web, in *Proceedings of AAAI 05 (intelligent systems demo)*, July 2005
31. Pranam Kolari, Li Ding, Shashidhara Ganjugunte, Lalana Kagal, **Anupam Joshi**, and Tim Finin, Enhancing Web Privacy Protection through Declarative Policies, in *Proceedings of the IEEE Workshop on Policy for Distributed Systems and Networks (POLICY 2005)*, June 2005
32. Pavan Reddivari, Tim Finin, and **Anupam Joshi**, Policy based Access Control for a RDF Store, in *Proceedings of the Policy Management for the Web Workshop*, May 2005
33. Li Ding, Pranam Kolari, Tim Finin, **Anupam Joshi**, Yun Peng, and Yelena Yesha, On Homeland Security and the Semantic Web: A Provenance and Trust Aware Inference Framework, in *Proceedings of the AAAI Spring Symposium on AI Technologies for Homeland Security*, March 2005

34. Anand Patwardhan, Jim Parker, **Anupam Joshi**, Michaela Iorga, and Tom Karygiannis, Secure Routing and Intrusion Detection in Ad Hoc Networks, in *Proceedings of the 3rd International Conference on Pervasive Computing and Communications*, March 2005
35. Li Ding, Lina Zhou, Tim Finin and **Anupam Joshi**, How the Semantic Web is Being Used: An Analysis of FOAF, in *Proceedings of the 38th International Conference on System Sciences, Digital Documents Track (The Semantic Web: The Goal of Web Intelligence)*, Hawaii, January 2005.
36. Tim Finin, James Mayfield, **Anupam Joshi**, R. Scott Cost and Clay Fink, Information Retrieval and the Semantic Web, in *Proceedings of the 38th International Conference on System Sciences, Digital Documents Track (The Semantic Web: The Goal of Web Intelligence)*, Hawaii, January 2005
37. Li Ding, Tim Finin, **Anupam Joshi**, Rong Pan , R. Scott Cost, Yun Peng, Pavan Reddivari, Vishal C Doshi and Joel Sachs, Swoogle: A Search and Metadata Engine for the Semantic Web, in *Proceedings of the Thirteenth ACM Conference on Information and Knowledge Management*, pp 652-659, Nov 2004.
38. Lalana Kagal, Tim Finin, and **Anupam Joshi**, Declarative Policies for Describing Web Service Capabilities and Constraints, *W3C Workshop on Constraints and Capabilities for Web Services*, October, 2004.
39. John Michopoulos, Panagiota Tsompanopoulou, Elias N. Houstis, **Anupam Joshi**, Agent-Based Simulation of Data-Driven Fire Propagation Dynamics, *International Conference on Computational Science*, pp 732-739, July 2004
40. Anand Patwardhan, Vladimir Korolev, Lalana Kagal, **Anupam Joshi**, Enforcing Policies in Pervasive Environments, *International Conference on Mobile and Ubiquitous Systems: Networking and Services*, pp 299-309, August 2004.
41. Filip Perich, Jeffrey L Undercoffer, Lalana Kagal, **Anupam Joshi**, Tim Finin, Yelena Yesha, In Reputation We Believe: Query Processing in Mobile Ad-Hoc Networks, *International Conference on Mobile and Ubiquitous Systems: Networking and Services*, pp 326-334, August 2004.
42. Harry Chen, Filip Perich, **Anupam Joshi**, Tim Finin, SOUPA: Standard Ontology for Ubiquitous and Pervasive Applications, *International Conference on Mobile and Ubiquitous Systems: Networking and Services*, pp 258-267, August 2004.
43. Sasikanth Avancha, Chintan Patel, Anupam Joshi, Ontology-Driven Adaptive Sensor Networks, *International Conference on Mobile and Ubiquitous Systems: Networking and Services*, pp 2194-202, August 2004.
44. Harry Chen, Filip Perich, Dipanjan Chakraborty, Tim Finin, **Anupam Joshi**, Intelligent Agents Meet Semantic Web in a Smart Meeting Room, *Proceedings of the Third International Joint Conference on Autonomous Agents & Multi Agent Systems (AAMAS 2004)*, pp 854-861, July 2004.
45. Li Ding, Pranam Kolari, Shashidhara Ganjugunte, Tim Finin, **Anupam Joshi**, Modeling and Evaluating Trust Network Inference, *Seventh International Workshop on Trust in Agent Societies at AAMAS 2004*, July 2004.
46. Jim Parker, Jeffrey L Undercoffer, John Pinkston, and **Anupam Joshi**, On Intrusion Detection in Mobile Ad Hoc Networks, Invited Paper, *Workshop on Information Assurance, 23rd IEEE International Performance Computing and Communications Conference*, Phoenix, April 2004 .
47. Dipanjan Chakraborty, Yelena Yesha, **Anupam Joshi**, A Distributed Service Composition Protocol for Pervasive Environments, *IEEE Wireless Communications and Networking Conference (WCNC)*. Atlanta. Georgia. March. 2004
48. Harry Chen, Timothy W. Finin, **Anupam Joshi** , Semantic Web in the Context Broker Architecture, *IEEE Second Int. Conference on Pervasive Computing and Communications*, Orlando, 14-17 March 2004, pp. 277-286.
49. Dipanjan Chakraborty, Avinash Shenoi, **Anupam Joshi**, Yacov Yesha, Yelena Yesha, Mukesh Singhal , A Queuing Theoretic Model for Service Discovery in Ad-hoc Networks,

- Communication Networks and Distributed Systems Modeling and Simulation Conference (CNDS)*. San Diego. California. January. 2004
50. Olga Ratsimor, Tim Finin, **Anupam Joshi**, Yelena Yesha, eNcentive; A framework for intelligent marketing in mobile peer-to-peer environments, Proc. 5th International Conference on Electronic Commerce, pp 87-94, 2003.
 51. Lalana Kagal, Tim Finin, **Anupam Joshi**, A Policy Based Approach to Security for the Semantic Web, *2nd International Semantic Web Conference (ISWC2003)*, September 2003.
 52. Jeffrey L Undercoffer, **Anupam Joshi**, and John Pinkston, Modeling Computer Attacks: An Ontology for Intrusion Detection, *The Sixth International Symposium on Recent Advances in Intrusion Detection (Springer Verlag LNCS 2516)*, September 2003.
 53. Lalana Kagal, Timothy W. Finin, **Anupam Joshi**, A Policy Language for a Pervasive Computing Environment, 4th IEEE International Workshop on Policies for Distributed Systems and Networks (POLICY 2003), pp 63-71, 4-6 June 2003, Lake Como, Italy
 54. Hiren Shah, Jeffrey Undercoffer, **Anupam Joshi**, Fuzzy Clustering for Intrusion Detection, *The 12th IEEE International Conference on Fuzzy Systems*, St. Louis, 2003
 55. Anupam Joshi, Vipul Hingne, Elias Houstis, J. Michopoulos, On the Grid and Sensor Networks, Fourth International Workshop on Grid Computing, pp 166-173, 2003.
 56. Kodeswaran, S., Ratsimor, O., **Joshi, Anupam**, Finin, Tim, and Yesha, Yelena, Using Peer-to-Peer Data Routing for Infrastructure-based Wireless Networks, *IEEE Int. Conference on Pervasive Computing and Communications*, pp 305-312, Dallas-Fort Worth, 23-26 March 2003.
 57. Olga Ratsimor, Sethuram Balaji Kodeswaran, **Anupam Joshi**, Timothy Finin, Yelena Yesha, Combining Infrastructure and Ad hoc Collaboration For Data Management in Mobile Wireless Networks, *Workshop on Ad hoc Communications and Collaboration in Ubiquitous Computing Environments*, Nov 2002.
 58. Shah, Urvi, Finin, Tim, **Joshi, Anupam**, Cost, R. Scott and Mayfield, James, Information Retrieval on the Semantic Web, 10th International Conference on Information and Knowledge Management, pp 461-468, November 2002
 59. Bethala, B., **Joshi, Anupam**, Phatak, D., Avancha, S., Goff, T., Simulation of a Common Access Point for Bluetooth, 802.11 and Wired LANs, *International Conference on Parallel and Distributed Processing Techniques and Applications*, June 2002
 60. Dipanjan Chakraborty, Filip Perich, Sasikanth Avancha, **Anupam Joshi**, DReggie: A smart Service Discovery Technique for E-Commerce Applications, *Workshop on Reliable and Secure Applications in Mobile Environment* held in conjunction with 20th Symposium on Reliable Distributed Systems (SRDS), New Orleans, October. 2001.
 61. Avancha, S., Korolev, V., **Joshi, Anupam**, Transport Protocols in Wireless Networks , *10th IEEE International Conference on Computer Communications and Networks*, September 2001
 62. Chakraborty, D., Perich, F., **Joshi, Anupam**, Finin, T., and Yesha, Y. , A Reactive Service Composition Architecture for Pervasive Computing Environments, *IFIP WG 6.8 7th Personal Wireless Communications Conference (PWC 2002)*, Singapore, October, 2002.
 63. Perich, F., Avancha, S., Chakraborty, D., **Joshi, Anupam**, Yesha, Y., Profile Driven Data Management for Pervasive Environments, *Third International Conference on Databases and Expert Systems (DEXA 2002)*, Aix-en-Provence, 2002.
 64. Chakraborty, D., Perich, F., **Joshi, Anupam**, Finin, T., and Yesha, Y., Middleware for Mobile Information Access, *5th International Workshop on Mobility in Databases and Distributed Systems (MDDS 2002)*, Aix-en-Provence, 2002
 65. Ratsimor, O., Chakraborty, D., Tolia, S., Khushraj, D., Kunjithapatham, A., Gupta, G., **Joshi, Anupam**, Finin, T. Allia: Policy-based Alliance Formation for Agents in Ad-hoc Environments. *2nd ACM Mobile Commerce Workshop held in conjunction with MobiCom 2002 (MC 2002)* , Atlanta, September 2002.

66. Chakraborty, D., and **Joshi, Anupam**, , GSD: A Novel Group-based Service Discovery Protocol for MANETS , *4th IEEE Conference on Mobile and Wireless Communications Networks (MWCN 2002)*. Stockholm. Sweden. September. 2002.
67. Kagal, L., Finin, T., **Joshi, Anupam**, Developing Secure Agent Systems Using Delegation Based Trust Management, *Security of Mobile Multi-Agent Systems Workshop, Autonomous Agents and Multiagent Systems (AAMAS 2002)*, Bologna, Italy, July 2002
68. Chandrasekharan, P. and **Joshi, Anupam**, MobileIQ: A framework for mobile information access, *Proc. Mobile Data Management Conference*, Singapore, Jan 2002
69. Dipanjan Chakraborty, Filip Perich, Sasikanth Avancha, and **Joshi, Anupam** , DReggie: Semantic Service Discovery for M-Commerce Applications, *Workshop on Reliable and Secure Applications in Mobile Environment*, 20th Symposium on Reliable Distributed Systems, October 28-31, 2001.
70. **Joshi, Anupam**, Finin, T., and Yesha, Y., Agents, Mobility, and M-Services: Creating the next generation applications and infrastructure on mobile ad-hoc networks, *NSF Workshop on an Infrastructure for Mobile and Wireless Systems*, Phoenix, Oct 2001.
71. Sasikanth Avancha, Vladimir Korolev, **Joshi, Anupam**, and Timothy Finin, Transport Protocols in Wireless Networks, *IEEE International Conference on Computer Communications and Networks*, Phoenix, October 15-17, 2001.
72. Olga Ratsimor, Vladimir Korolev, **Joshi, Anupam** , and Timothy Finin, Agents2Go: An Infrastructure for Location-Dependent Service Discovery in the Mobile Electronic Commerce Environment, *ACM Mobile Commerce Workshop in conjunction with MobiCom*, pp 31-37, July, 2001.
73. R. Scott Cost, Tim Finin, **Joshi, Anupam**, Yun Peng, Charles Nicholas, Filip Perich, Harry Chen, Lalana Kagal, Youyong Zou, and Sovrin Tolia, ITTALKS: A Case Study in how the Semantic Web Helps, *International Semantic Web Workshop -- Infrastructure and Applications for the Semantic Web*, Stanford, July 2001.
74. Filip Perich, R. Scott Cost, Tim Finin, **Joshi, Anupam** , Yun Peng, Charles Nicholas, Harry Chen, Lalana Kagal, Youyong Zou, and Sovrin Tolia, ITTALKS: An Application of Agents in the Semantic Web , *Workshop on Engineering Societies in the Agents' World* , Prague, 7 July 2001.
75. Korolev, V., and **Joshi, Anupam** , An End-End Approach to Wireless Web Access, in *Proc. Wireless Networks and Mobile Computing 2001, Workshop of 21st IEEE Intl. Conf. Distributed Computing Systems*, Phoenix.
76. Kagal, L., Korolev, V., Chen, H., **Joshi, Anupam** , Finin, T., Centaurus: A framework for Intelligent Services in a Mobile Environment, in *Proc. Intl. Workshop on Smart Appliances and Wearable Computing, Workshop of 21st IEEE Intl. Conf. Distributed Computing Systems*, Phoenix.
77. Pallela, C., Xu, L., Chakraborty, D., and **Joshi, Anupam** , A Component Based Architecture for Mobile Information Access, *Proc. Workshop on Pervasive Computing, IEEE Intl. Conf. Parallel Processing*, Toronto, 2000.
78. Chen, H., Chakraborty, D., Xu, L., **Joshi, Anupam** , and Finin, T., Service Discovery in the Future Electronic Market, *Proc. Workshop on Knowledge Based Electronic Markets*, AAAI2000, Austin, 2000.
79. **Joshi, Anupam** and Krishnapuram, R., On Mining Web Access Logs, *Proc. SIGMOD 2000 Workshop on Research Issues in Data Mining and Knowledge Discovery*, pp 63-69, Dallas, 2000.
80. Joshi, K., **Joshi, Anupam**, Yesha, Y., and Krishnapuram, R., Warehousing and Mining Web Logs, *Proc. Workshop on Web Information and Data Management, ACM CIKM 99*, Kansas City, 1999.
81. Tripathy, S. and **Joshi, Anupam** and Shi, H., A Distributed Mobile System for Landmine Detection, *Proc. SPIE/SIAM Conference on Parallel and Distributed Methods for Image Processing III*, vol. 3817, pages 129-136, Denver, CO, July 1999.

82. Yi, L., Krishnapuram, R. and **Joshi, Anupam** , A Fuzzy relative of the k-Medoids Algorithm with Application to Document and Snippet Clustering, *Proc. IEEE Intl. Conf. Fuzzy Systems - FUZZ-IEEE 1999.*, Korea, August 1999.
83. O. Nasraoui, R. Krishnapuram, and **Joshi, Anupam** , Relational Clustering Based on a New Robust Estimator with Application to Web Mining, *Proceedings of the North American Fuzzy Information Society Workshop*, New York City, June 1999.
84. O. Nasraoui, R. Krishnapuram, and **Joshi, Anupam** , Mining Web Access Logs Using a Relational Clustering Algorithm Based on a Robust Estimator, *Proceedings of the Eighth International World Wide Web Conference (poster)*, Toronto, May 1999.
85. Nasraoui, O, Frigui, H., **Joshi, Anupam** and Krishnapuram, R., Mining Web Access Logs Using Relational Competitive Fuzzy Clustering, *Proc. Eight International Fuzzy Systems Association World Congress - IFSA 99*, Taipei, August 1999
86. **Joshi, Anupam**, "On Mobility and Agents", *Proc. DIMACS Workshop on Mobile Networks and Computing*, New Brunswick, March 1999.
87. **Joshi, Anupam**, Punyapu, C., and Karnam, P., Personalization & Asynchronicity to Support Mobile Web Access, *Proc. Workshop on Web Information and Data Management, ACM Conf. on Information and Knowledge Management*, Bethesda, MD, Nov 1998 .
88. Bharadvaj, H., **Joshi, Anupam**, and Auephanwiriyaikul, S., "An Active Transcoding Proxy to Support Mobile Web Access", *17th IEEE Symposium on Reliable Distributed Systems* , October 1998
89. Subramanyam, V. and **Joshi, Anupam**, "Security in Mobile Systems", *Workshop on Security in Large Scale Distributed Systems, IEEE Symposium on Reliable Distributed Systems '98*.
90. Vass, J., Yao, J., **Joshi, Anupam**, Palaniappan, K., and Zhuang, X., "Interactive Image Retrieval over the Internet", *Workshop on Multimedia Networking, IEEE Symposium on Reliable Distributed Systems '98*
91. **Joshi, Anupam** and Krishnapuram, R., Robust Fuzzy Clustering Methods to Support Web Mining, *Proc. ACM SIGMOD Workshop on Data Management and Knowledge Discovery*, 1998.
92. **Joshi, Anupam**, Auephanwiriyaikul, S., Krishnapuram, R., `` On Fuzzy Clustering and Content Based Access to Networked Video Databases", *Proc. 8th IEEE Workshop on Research Issues in Data Engineering* , pp. 42-47, 1998
93. Auephanwiriyaikul, S., **Joshi, Anupam**, Krishnapuram, R., `` Fuzzy Shot Clustering to Support Networked Video Databases", *Proc. IEEE FUZZ-IEEE 98/WCCI98*, May 98.
94. Drummond, Scott, **Joshi, Anupam**, Sudduth, Kenneth, `` Application of Neural Networks: Precision Farming", *Proc. IEEE Intl. Joint Conf. Neural Networks, IJCNN98/WCCI98*, May 98
95. **Joshi, Anupam**, Weerawarana, S., and Houstis, E.N., `` On Disconnected Browsing of Distributed Information", in *Proc. 7th IEEE Workshop on Research Issues in Data Engineering* , pp 101-107, 1997.
96. Ramakrishnan, N., **Joshi, Anupam**, Houstis, E.N. and Rice, J.R., "Neuro-Fuzzy approaches to Collaborative Scientific Computing", in *IEEE Intl. Conf. Neural Networks 97* , v1, pp 473-478, Houston, 1997.
97. Ramakrishnan, N., **Joshi, Anupam**, Houstis, E.N. and Rice, J.R., "Collaborative Environments for Scientific Computing: The Task of Algorithm/Software Selection", presented at *Eleventh Intl. Conf. Math. Comp. Modeling & Scientific Computing* , 1997.
98. Kavasseri, R. , Keating, T. Wittman, M., **Joshi, Anupam** and Weerawarana, S., `` Web Intelligent Query - Disconnected Web Browsing with Collaborative Techniques", *Proc. First IFCIS Conf. on Cooperative Information Systems (CoopIS)*, Brussels, Belgium, 1996 .
99. **Joshi, Anupam**, Ramakrishnan, N., Rice, J.R. and Houstis, E.N., `` A Neuro-Fuzzy Approach to Agglomerative Clustering", *Proc. IEEE Intl. Conf. Neural Networks - ICNN '96*, v 2, pp 1028-1033, Washington, D.C., 1996

100. **Joshi, Anupam**, ``To Learn or not to Learn", *IJCAI '95 Workshop on Adaptation and Learning in Multiagent Systems* (G. Weiss & S. Sen eds.), Lecture Notes in AI, v. 1042, Springer Verlag.
101. Canfiled, P. and **Joshi, Anupam**, ``A Pyramid approach to stereo correspondence", Proc. *Intl. Conf. NPSC*, Atlanta, 1995, pp. 77-80.
102. Houstis, E., Weerawarana, S. and **Joshi, Anupam**, ``The PYTHIA project", Proc. *Intl. Conf. NPSC*, Atlanta, 1995, pp. 215-218.
103. **Joshi, Anupam**, Drashansky, T, Houstis, E and Weerawarana, S., ``SciencePad: An Intelligent Electronic Notepad for Ubiquitous Scientific Computing", Proc. *International Conference on Intelligent Information Management Systems*, Washington, D.C., 1995, pp. 107-110.
104. Drashansky, T., **Joshi, Anupam** and Rice, J.R., ``SciAgents - An agent based environment for distributed, cooperative scientific computing", Proc. *IEEE Intl. Conf. Tools with AI ICTAI '95*, pp. 452-459.
105. Ramakrishnan, N., **Joshi, Anupam**, Weerawarana, S., Houstis, E., ``Using Neuro-Fuzzy Methods for Scientific Computing", Proc. *Artificial Neural Networks in Engineering ANNIE'95*, pp. 279-284.
106. Jha, M., **Joshi, Anupam** and Sinha, K.C., ``A Framework for Dynamic Network Traffic Simulation on Distributed Systems", Proc. *ASCE AATT*, Capri, 1995.
107. Houstis, E., **Joshi, Anupam**, Rice, J, and Weerawarana, S., ``MPSE: Multidisciplinary Problem Solving Environments", White Paper presented at the *America in the Age of Information: A forum*, Committee on Information and Communications, National Science and Technology Council http://www.hpcc.gov/cic/forum/CIC_Cover.html
108. **Joshi, Anupam**, Weerawarana, S and Houstis, E.N., ``The use of Neural Networks to support intelligent scientific computing", *Proceedings of the IEEE ICNN '94*, v 4, pp. 2197-2202.
109. **Joshi, Anupam** and Lee, C.H. ``Using Elastic Nets for Correspondence in range data", *Proceedings of the IEEE International Conference on Neural Networks '93* San Fransisco, pp. 1908-1913.
110. **Joshi, Anupam** and Lee,C.H, ``Stereo Correspondence and Missing Points", *Proceedings of the INNS World Congress on Neural Networks '93*.
111. **Joshi, Anupam** and Lee, C.H., ``Elastic Nets and Stereo Correspondence", *Proceedings of the IEEE International Joint Conference on Neural Networks, '92* Beijing.
112. **Joshi, Anupam** and Lee, C.H., ``On modelling the retina using Neural Networks", *Proceedings of IEEE International Joint Conference on Neural Networks '91*, Singapore, pp. 2343-2348.

Conferences/Workshops with Refereed Abstracts

For these, only abstracts or extended abstracts were reviewed

1. Pranam Kolari, Tim Finin, and **Anupam Joshi**, SVMs for the Blogosphere: Blog Identification and Splog Detection, in *Proceedings of AAAI Spring Symposium on Computational Approaches to Analysing Weblogs*, March 2006
2. Anjali Bharat Shah, Lalana Kagal, Tim Finin, **Anupam Joshi**, Policy Development Software for Security Policies, *DIMACS workshop on Usable Privacy and Security Software*, July 2004.
3. Vipul Hingne, Anupam Joshi, Tim Finin, Hillol Kargupta, Elias Houstis, Towards a Pervasive Grid, *International Parallel and Distributed Processing Symposium (IPDPS'03)*, pp 207, 2003.
4. Lalana Kagal, Jeffrey Undercoffer, Filip Perich, **Anupam Joshi**, Tim Finin, A Security Architecture Based on Trust Management for Pervasive Computing Systems, *Grace Hopper Celebration of Women in Computing*, 2002.

5. Lalana Kagal, Vladimir Korolev, Sasikanth Avancha, **Anupam Joshi**, Timothy Finin, An Approach to Dynamic Service Management in Pervasive Computing, *Grace Hopper Celebration of Women in Computing*, 2002.
6. Avancha, S., Chakraborty, D., Chen, H., Kagal, L., Perich, F., Finin, T., Joshi, Anupam, Issues in Data Management for Pervasive Environments , NSF Workshop on Context Aware Mobile Database management (CAMP), January 24-25, 2002
7. Lalana Kagal, Filip Perich, Harry Chen, Sovrin Tolia, Youyoung Zou, Tim Finin, Anupam Joshi, Yun Peng, Richard Cost, Charles Nicholas, Agents Making Sense of the Semantic Web, First GSFC/JPL Workshop on Radical Agent Concepts (WRAC), January 2002.
8. Harry Chen, Sovrin Tolia, Craig Sayers, Tim Finin, and Anupam Joshi, Creating Context-Aware Software Agents, First GSFC/JPL Workshop on Radical Agent Concepts, January, 2002.
9. Dipanjan Chakraborty, Filip Perich, Sasikanth Avancha, and Anupam Joshi, An Agent Discovery Architecture using Ronin and DReggie, First GSFC/JPL Workshop on Radical Agent Concepts, January, 2002.
10. Sasikanth Avancha, Dipanjan Chakraborty, Dhiral Gada, Tapan Kamdar, and Anupam Joshi, Fast and effective wireless handoff scheme using forwarding pointers and hierarchical foreign agents, SPIE International Symposium on Convergence of IT and Communications , August 20-24, 2001 (Invited Submission).
11. Joshi, Anupam and L. Xu, A Jini based Framework for a Component Recommender System, Proc. 16th IMACS world Congress , Special Session on PSEs for Scientific Computing (invited submission)
12. Drashansky, T., Joshi, Anupam, Rice, J.R., "Multidisciplinary Problem Solving using Agents in a Cluster Environment", Cluster Computing Conference 97 (On-Line proceedings at <http://www.mathcs.emory.edu/~ccc97/sessions.html>).
13. Drashansky, T., Joshi, Anupam, Rice, J. R., Houstis, E. N., Weerawarana, W., ``A MultiAgent Environment for MPSE's", (CD-ROM) Proc. 8th SIAM Conf. Parallel Processing for Scientific Computing, 1997 .
14. Ramakrishnan, N., Joshi, Anupam, Houstis, E.N., Rice, J.R. and Weerawarana, S., ``Intelligent Networked Scientific Computing", Proc. 15th IMACS World Congress, 1997.
15. Drashansky, T., Joshi, Anupam, Rice, J. R., Houstis, E. N., Weerawarana, S., ``MultiAgent Techniques for Simulation of Complex Scientific Systems", Proc. 15th IMACS World Congress, 1997.
16. Graham, S., Pizlo, Z. and Joshi, Anupam, ``Problem Solving in Human Beings and Computers", presented at Annual Math. Psych. Meeting , Irvine, 1995.
17. Guerra, C, Houstis, E.N. and Joshi, Anupam , ``Reconstruction of rectangles from projections: an application to surface mounted device placement", SPIE Intelligent Robots and Computer Vision XIII, 1994, pp. 145-150.

Non-Peer-Reviewed Works.

1. Pranam Kolari, Akshay Java, Tim Finin, James Mayfield, **Anupam Joshi**, and Justin Martineau, *Blog Track Open Task: Spam Blog Classification, TREC 2006 Blog Track Notebook*, November 2006
2. Tim Finin, Li Ding and **Anupam Joshi**, Information Integration and the Semantic Web, *Notes from the Information Integration Workshop*, October 2006,
3. Joshi, Anupam, Weerasinghe, R., Mcdemott, S., Tan, B., Bernhardt, G. and Weerawarana, S., Mowser: Mobile Platforms and Web Browsers', *Bulletin of the TCOS, IEEE Computer Society*, 1996
4. Houstis, E. and Joshi, Anupam, SciencePad: An Environment for the Electronic Classroom and Laboratory, presented at Invited Minisymposium on Electronic Textbooks, Classrooms and Laboratories for Education in Computational Sciences, SIAM Annual meeting 1995

Students:**Ph.D.**

Jim Parker, Fall 2008, Chair
Sethuram Balaji Kodeswaran, Summer 2008, Chair
Anand Patwardhan, May 2007, Chair
Sasikanth Avancha, Aug 2005, Chair (MS, December 2001)
Filip Perich, May 2004, Chair
Dipanjan Chakraborty, June 2004, Chair
Palanivel Kodeswaran, PhD Expected Summer 2010, Chair
Wenjia Li, PhD Expected 2010, Chair.
Randy Schauer, PhD Expected 2011, Chair (part time student)

Master's

Sheetal Gupta, Summer 2008, Chair
Onkar Valawalkar, Summer 2007, Chair
Amit Karandikar, May 2007, Chair
Sandor Dornbush, Aug 2007, Chair
Nimish Vartak, Summer 2006, Chair
Sheetal Agarwal, Summer 2006, Chair
Sachee Tripathi, Summer 2005, Chair
Abhishek Gujar, December 2005, Chair
G.K. Shashidhara, Summer 2005, Chair
Vladimir Korolev, Aug 2004, Chair
Pranam Kolari, May 2004, Chair
Amit Choudhri, September 2003, Chair
Avinash Sheno, September 2003, Chair
Hiren Shah, Aug 2003, Chair
Vipul Hingne, May 2003, Chair
Kejian Hu, August 2002, Chair
Bhagyalakshmi Bethala, August 2002, Chair
Sovrin Tolia, August 2002, Chair
Dhiraj Bhandari, May 2002, Chair
Purnima Chandrashekharan, Aug 2001, Chair
Tapan Kamdar, May 2001, Chair
Chaitanya Pallela, August 2000, Chair
Liang Xu, May 2000, Chair
Scott Jiang, May 2000, Chair

The Following Students graduated from the University of Missouri

Vineeth Subramaniam, Summer 1999, Chair
Sunil Tripathy, Feb 1999, Chair
Sanjay Mellacheruvu, Feb 1999, Chair
Harini Bharadwaj, Summer 1998, Chair
Scott Drummond, Summer 1998, Chair
Pramod Karnam, Summer 1997, Chair

Honors Received:

1999-2003	NSF CAREER Award
2003 -	IBM Toronto CAS Fellow
1997-1999, 2002-2003, 2006- 1994-1996	IBM Faculty Award / UPP NSF Research Associate Award. Member, Upsilon Pi Epsilon. Member, IEEE, IEEE-CS, ACM. Elected Senior Member of IEEE in 2003.
1984	Prefect, Academics, Modern School (India).
1983	National Talent Scholarship (India)
1980	Junior Science Talent Scholarship (India)

Selected Professional services

I have served on the PC for many conferences, some of which are outlined below. In addition, I routinely review papers for several prominent journals in my field. Recent examples include Trans. Knowledge and Data Engineering, IEEE Trans. Computers, IEEE Trans Mobile Computing, IEEE Computer, IEEE Internet Computing, IEEE Trans. SMC, IEEE Trans. Neural Networks, Comm. ACM, VLDB Journal, ACM/Kluwer MONET, J. Distr. and Parallel Databases. I have also served as a panelist for NSF on several occasions for different programs such as IIS, EIA and DUE. Due to confidentiality reasons, exact dates and panels cannot be revealed.

2006 - date	Editorial Board Member	International Journal on Semantic Web and Information Systems
1999 - 2003	Associate Editor	IEEE Transactions on Fuzzy Systems
2003	Guest Editor	VLDB Journal Special issue on the Semantic Web (with Y. Yesha and V. Atluri)
2002	Guest Editor Special	Journal of Very High Speed Networks Issue on Multimedia Networks (with P. Mundur)
2001	Guest Editor	Journal of Very High Speed Networks Special Issue on Broadband Wireless Networks.(with A. Krishna)
Jun 1999	Guest Editor	Journal of Distributed and Parallel Databases Special Issue on Mobile Data Management and Applications (with J. Jing)
Mar 1999	Guest Editor	CACM Theme section on MultiAgent systems on the Network (with M. Singh)
Oct 1998	Guest Editor	IEEE Personal Communications Magazine Special Issue on Mobile Systems and the Web (with A. Krishna)
2005 -	Steering Committee	IEEE MDM
2008	Program Committee	IEEE MDM
2007	Program Committee	ISWC/ASWC
2007	Program Committee	Mobiquitous
2007	Program Committee	AAMAS

2007	Program Committee	AAAI07/AIW
2006	Program Committee	IEEE MDM
2006	Program Committee	IEEE PERCOM
2006	Program Committee	ISWC
2006	Program Committee	Mobiquitous
2006	Program Committee	AAMAS
2006	Program Committee	AAAI06/AIW
2006	Program Committee	WWW MTW Workshop
2006	Program Committee	ICDE SeNS Workshop
2006	Program Committee	ACM CIKM06
2005	Program Committee	IEEE SECON
2005	Program Committee	ISWC
2005	PC Chair	Mobiquitous05
2005	Organizing Committee Chair	ACM SIGMOD
2005	Program Committee	IEEE ICDE
2005	Program Committee	IEEE PERCOM
2005	Program Committee	ISWC SWPW Workshop
2004	Local Arrangements Chair	ACM SenSys
2004	Program Committee	IEEE SECON
2004	Panels Co-Chair	Mobiquitous04
2004	Co-General Chair	IEEE MDM
2004	Program Committee	ISWC
2004	Program Committee	IEEE ICDE
2004	Program Committee	IEEE ICDCS
2003	Program Committee	IEEE PERCOM
2003	Program Committee	IEEE MDM
2003	Program Committee	IEEE ICDE
2003	Program Committee	ISWC
2002	Local Arrangements Chair	ACM CIKM
2002	Program Committee	AAMAS Workshop on Ubiquitous Agents on embedded, wearable, and mobile devices, ACM Mobicom Workshop on Commerce
2002	Program Committee	ACM SIGMOD Conference
2002	Program Committee	IEEE ICDCS
2002	Co-Organizer	NSF Workshop on Context Aware Mobile Data Management,.
2001	Program Committee	ATAL
2001	Program Committee	IPCCC
2001	Program Co-Chair	ACM Mobicom Workshop on Commerce
2001	Program Committee	3rd IEEE Intl. Conf. Mobile and Wireless Communication Networks
2001	Program Committee	Intl. Conf. Parallel and Distributed Systems
2001	Program Committee	2nd International Workshop on Wireless Networks and Mobile Computing (held with IEEE Intl Conf. Distributed Computing Systems),

2001	Program Committee Member	2nd International Conference on Mobile Data Management
2000	Local Arrangements CoChair	ACM CIKM
2000	Tutorial on Mobile E-Commerce	2nd ACM SigECOM Conference EC00.
2000	Tutorial: Mobile Data Management	ACM CIKM.
2000	Program Co-Chair	Tenth IEEE Workshop on Research Issues in Data Engineering (RIDE2000)
2000	Program Committee Member	IPCCC.
2000	Co-Organizer	HICSS33 Minitrack on Multi-Agent systems, Internet, & Applications.
1999	Program Committee	Electronic Commerce and Web (EC-WEB) Conference
1999	Co-Organizer, Panel on Mobility	First ACM Conference of
Electronic,		
1999	and Electronic Commerce,	Commerce
1999	Program Committee Member	Fifth Annual ACM/IEEE MobiCom
1999	Program Committee Member	WIDM Workshop, ACM CIKM.
1998	Program Committee Member	Fourth Annual ACM/IEEE International Conference on
Mobile		
1998	Program Committee Member	Computing and Networking AAAI 98 Workshop on Software Tools for Developing Agents.
1998	Moderator & Organizer	Panel on Security in Mobile Systems, ACM/IEEE Mobicom '98
1998	Presented a tutorial on at Computational Intelligence & Data Mining	IEEE WCCI
1998	Session chair (mobile databases session)	IEEE ICDE'98
1997	Organizer, Panel Cooperative MultiAgent systems for the Web	CoopIS'97.
1996	Presented a tutorial on Mobile Computing and Web	ACM Mobicom '96
1996	Member Program Committee	IASTED/ISMM Intl. Conf.
Intelligent		
1996	Member Program Committee	Information Management Systems IEEE Intl. Conf. Tools wih AI,
1996.		
1995	Co-Organizer and panelist, minisymposium on Electronic Textbooks, Classrooms and Labs for Education in Computational Sciences	SIAM Annual Meeting 1995
1995	Tutorials Chair	IEEE First International Conference on Software Testing,
	Reliability and	
		Quality Assurance
1995	Panelist, AI Tools in Human-Computer Interaction: Perspectives, Issues, and Directions	IEEE Intl. Conf. Tools with AI.

University Service

March 07 – Summer 07	Member	Faculty Senate Executive Committee
Aug 06 – date	Member	University Research Council
Sep 2006 – Aug2008	Chair	CS Promotion and Tenure Committee
Fall 04	Member	Search Committee for the Assistant/Associate Vice Provost for Research Administration
Aug 2002 - date	Member	UMBC Computer Policy Committee
Sep 2004 – date	Chair	UMBC Computer Policy Committee
April 2004 – date Center.	Member	Internal Advisory board for Alex Brown
Aug 1998 - date	Member	CS Graduate Committee
Aug 1999 - date	Member	CS Graduate Admissions Committee
Aug 1999 - 2001	Chair	CS Graduate Admissions Committee
Aug 1999 - May 2002	Member	CS Faculty Search Committee
Aug 2003 - date	Chair	CS Equipment Committee
Aug 1998 - date	Member	CS Equipment Committee
(at Univ of Missouri)		
Jan 1997- Aug98	Coordinator	Internet Information Services
Jan 1997 - Aug98	Member	Library Committee
Aug 1997 - Aug 98	Member	Graduate Committee
Jan 1997 - Aug1997	Member	Course & Curriculum Committee
1997	Member	Faculty Search Committee