

# Nitin Agarwal

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<b>Education</b>	<b>Arizona State University</b> <b>Candidate for Ph.D. degree in Computer Science &amp; Engineering, Aug 2003</b> Advisor: Prof. Huan Liu ( <i>Research Interests: Social Computing, Knowledge extraction in Social Media &amp; Web 2.0, Modeling phenomena like Influence, Trust, Familiar Strangers and evaluation of such models, Semantic Web Mining, Data Mining and Machine Learning</i> )	<b>Tempe, AZ</b> <i>GPA: 3.89/4.00</i>
	<b>Indian Institute of Information Technology</b> <b>Bachelor of Technology in Information Technology, Aug 1999-May 2003</b>	<b>Allahabad, India</b> <i>GPA:9.33/10.00</i>

## Research Experience (*list of selected publications*)

- Conference**
- 1. A Social Identity Approach to Identify Familiar Strangers in a Social Network**  
Nitin Agarwal, Huan Liu, Sudheendra Murthy, Arunabha Sen, and Xufei Wang. *3<sup>rd</sup> AAAI International Conference on Weblogs and Social Media (ICWSM'09)*, May 17-20, 2009. San Jose, California.
  - 2. BlogTrackers: A Tool for Sociologists to Track and Analyze Blogosphere (Demo Paper)**  
Nitin Agarwal, Shamanth Kumar, Huan Liu, and Mark Woodward. *3<sup>rd</sup> AAAI International Conference on Weblogs and Social Media (ICWSM'09)*, May 17-20, 2009. San Jose, California.
  - 3. Understanding Group Interaction in Blogosphere: A Case Study**  
Nitin Agarwal, Huan Liu, John J. Salerno, and Sanjay Sundarajan. *2<sup>nd</sup> International Conference on Computational Cultural Dynamics (ICCCD'08)*, September 15-16, 2008. Washington D.C.
  - 4. Clustering Blogs with Collective Wisdom**  
Nitin Agarwal, Magdiel Galan, Huan Liu, and Shankara Subramanya. *8<sup>th</sup> International Conference on Web Engineering (ICWE'08)*. July 14-18, 2008. Yorktown Heights, New York.
  - 5. A Study of Communities and Influence in Blogosphere**  
Nitin Agarwal. *2<sup>nd</sup> SIGMOD PhD Innovative Database and Research Doctorate Consortium (IDAR'08)*, June 13 2008, Vancouver, Canada.
  - 6. Identifying Influential Bloggers in a Community**  
Nitin Agarwal, Huan Liu, Lei Tang, and Philip S. Yu. *1<sup>st</sup> International Conference on Web Search and Data Mining (WSDM'08)*, February 11-12, 2008. Stanford, California. (Video: [http://videlectures.net/wsdm08\\_agarwal\\_iib/](http://videlectures.net/wsdm08_agarwal_iib/)). The video received over 580 hits till date, highest among all the talks at the conference.
  - 7. Searching for 'Familiar Strangers' on Blogosphere: Problems and Challenges**  
Nitin Agarwal, Huan Liu, John Salerno, and Philip S. Yu. *NSF Symposium on Next-Generation Data Mining and Cyber-enabled Discovery and Innovation (NGDM'07)*. October 10-12, 2007. Baltimore, Maryland.
  - 8. Approximate Structural Matching over Ordered XML Documents**  
Nitin Agarwal, Magdiel Galan, and Yi Chen. *11<sup>th</sup> International Database Engineering and Applications Symposium (IDEAS'07)*. September 6-8, 2007. Banff, Canada.
  - 9. Research Paper Recommender System: A Subspace Clustering Approach**  
Nitin Agarwal, Ehtesham Haque, Huan Liu, and Lance Parsons. *6<sup>th</sup> International Conference on Web-Age Information Management (WAIM'05)*. October 11-13, 2005. Hangzhou, China.

## Journal

### 1. Blogosphere: Research Issues, Tools, and Applications

Nitin Agarwal and Huan Liu. *SIGKDD Explorations*, 10(1):18 – 31. 2008.

### 2. Topic Taxonomy Adaptation for Group Profiling

Lei Tang, Huan Liu, Jianping Zhang, Nitin Agarwal, and John J. Salerno. *ACM Transactions on Knowledge Discovery from Data*, TKDD 1(4), 2008.

### 3. Blocking Objectionable Web Contents by Leveraging Multiple Information Sources

Nitin Agarwal, Huan Liu, and Jianping Zhang. *SIGKDD Explorations*, 8(1): 17 – 26. 2006.

### 4. A Subspace Clustering Framework for Research Group Collaboration

Nitin Agarwal, Ehtesham U. Haque, Huan Liu and Lance Parsons. *International Journal on Information Technology and Web Engineering (IJITWE)*, 1(1): 35 – 58. 2006.

## Talks

### Tutorial on Blogosphere: Research Issues, Applications, and Tools

Huan Liu and Nitin Agarwal. 14<sup>th</sup> ACM SIGKDD International Conference on Knowledge Discovery and Data Mining. August 24-27, 2008. Las Vegas, USA. (Video: [http://videlectures.net/kdd08\\_liu\\_briat/](http://videlectures.net/kdd08_liu_briat/)). The video became 6<sup>th</sup> most popular among all the videos at the site and 1<sup>st</sup> among the videos at the conference.

## Book

### Data Mining and Knowledge Discovery in Blogs

Nitin Agarwal and Huan Liu by Morgan & Claypool Publishers (to be published in 2009).

## Editor

### Special Issue on Social Computing in Blogosphere

IEEE Internet Computing Magazine, Guest Editor with Dr. Huan Liu and Dr. Philip S. Yu (to appear in early 2010).

## Book Chapters

### 1. Trust in Blogosphere

Nitin Agarwal and Huan Liu. *Encyclopedia of Database Systems*. (to appear)

### 2. A Study of Friendship Networks and Blogosphere

Nitin Agarwal, Huan Liu, and Jianping Zhang. *Handbook of Research on Text and Web Mining Technologies*. Chapter XXXVI, ISBN: 978-1-59904-990-8, Editors: Min Song and Yi-fang Brook Wu. Idea Group Inc.

### 3. Searching for ‘Familiar Strangers’ on Blogosphere

Nitin Agarwal, Huan Liu, John Salerno, and Philip S. Yu. *Next Generation of Data Mining*. Chapter 15, Editors: Hillol Kargupta, Jiawei Han, Philip S. Yu, Rajeev Motwani, and Vipin Kumar. Chapman & Hall/CRC Press.

### 4. Spatial Transformations for Identifying Mappings in Hierarchical Media Data

K. Selcuk Candan, Jong Wook Kim, Huan Liu, Reshma Suvarna, and Nitin Agarwal. *Multimedia Data Mining and Knowledge Discovery*. Editors: Valery Petrushin and Latifur Khan. Springer, 2006.

## Submitted Papers

### 1. Modeling Blogger Influence in a Community

Nitin Agarwal, Huan Liu, and Philip S. Yu. Submitted to *ACM Trans. on the Web (TWEB)*.

### 2. Searching for ‘Familiar Strangers’ in Blogosphere

Nitin Agarwal, Huan Liu, Shankara Subramanya, John Salerno, and Philip S. Yu. Submitted to *International Joint Conferences on Artificial Intelligence (IJCAI’09)*.

### 3. WisColl: Collective Wisdom based Blog Clustering

Nitin Agarwal, Magdiel Galan, Huan Liu, and Shankara Subramanya. Under review in the *Journal of Information Science: Special Issue on Collective Intelligence (JIS-CI)*.

### 4. Connecting Sparsely Distributed Similar Bloggers

Nitin Agarwal, Huan Liu, Shankara Subramanya, John Salerno, and Philip S. Yu. Submitted to *International Conference on Knowledge Discovery and Data Mining (KDD'09)*.

## Teaching Experience

### Graduate Teaching Associate, Computer Science and Engineering, ASU Aug 2008-Dec 2008 Social Computing and Web Analytics (CSE494/598)

Delivered lectures on data collection, crawling, and research issues in Blogosphere; assisted students and evaluated them on group and individual projects, assignments, quizzes, and exams.

## Leadership

### Heading the "Social Computing" research group under Dr. Huan Liu Jan 2007-present

Team leader for a group of 5 students. Lab incharge for the period, organized group meetings, task allocation and status monitoring, prepared reading list and website for the group.

### Led the Database Developer team at Hispanic Research Center, ASU Aug 2006-Feb 2008

Team leader for a group of 8 developers. Organized meetings with the developers and end users. Brainstorming sessions for streamlined project development. Task allocation and status reporting.

## Technical Experience

### Graduate Research Associate, Computer Science and Engineering, ASU Feb 2008-present

Working on research issues like identifying influential bloggers, event based blog community interaction, identifying and aggregating similar but disconnected bloggers and tackling challenges like data collection, model development and verification. Developed a prototype system *BlogTrackers*.

### Graduate Research Assistant, Hispanic Research Center, ASU Aug 2003-Feb 2008

Worked on projects like P1000 ([www.asu.edu/p1000/](http://www.asu.edu/p1000/), [www.asu.edu/mge/](http://www.asu.edu/mge/)), PPI (<http://p1kslr.ets.org/>) and WAESO ([www.asu.edu/waeso/](http://www.asu.edu/waeso/)) sponsored by NSF at Hispanic Research Center for developing applications to help Hispanic students in applying to US universities using 4D database, Webstar Webserver, PHP, and Java Servlets.

### Aptech Ltd. Pune Jun 2001-Aug 2001

Prepared initial framework for Course Authoring System for OnlineVarsity using Visual Basic, ASP and Microsoft SQL Sever.

## Software Systems

### BlogTrackers (sponsored in part by ONR grants N000140810477 and N000140910165)

Allows variety of tracking and visualization capabilities of various blogs to the users: tag clouds, frequency charts, watch lists, search capability, influential bloggers, temporal patterns, constantly updated data repository with millions of blog posts. Technologies used: Java, Microsoft SQL Server, SVN version control server. More details could be found at: <http://www.public.asu.edu/~huanliu/projects/BlogTrackers/>

## Technical Skills

**Languages:** Java, C/C++

**Web Programming:** PHP, Java Servlets, JSP, ASP, JavaScript

**Database:** Microsoft SQL Server 2005, MySQL, 4D

**Statistical Tools:** MATLAB

**Software Tools:** Rational Rose, SVN Server

**Platforms:** MAC, Windows, Unix

## Professional Services

- Served as Proceedings Chair for Workshop on Social Computing, Behavioral Modeling, and Prediction (SBP08, SBP09), (<http://www.public.asu.edu/~huanliu/sbp08/>).
- Reviewed several journal and conference papers for KDD, WWW, AAI, SDM, PAKDD, EC-WEB, WAIM, International Journal on Information Science, CIKM, IJCSA, APWeb, and JCISE.
- Helped in organizing MGE@MSA ([https://mge-p1000.asu.edu/mge\\_conf/](https://mge-p1000.asu.edu/mge_conf/)) and Nanotechnology (<http://whosenanotechnology.asu.edu/conference/>) conference for 4 consecutive years 2004-2007 as a part of voluntary service at Hispanic Research Center.

## Grants

- Actively participated in framing the AFOSR and ONR grants to Dr. Huan Liu.
- Involved in framing an NSF grant proposal about sensor data integration in collaboration with Arizona Department of Environmental Quality (AZDEQ) and Department of Mechanical and Aerospace Engineering at Arizona State University.
- Involved in projects sponsored by NSF at Hispanic Research Center in ASU.

## Awards

- Awarded Finalist in Outstanding PhD Students by School of Computing and Informatics, Arizona State University in April 2009.
- Awarded travel grants from SIAM Data Mining Conference in April 2009, GPSA, ASU in October 2005, September 2007, September 2008 and DGS, ASU in October 2005, July 2008.
- Awarded IOB Scholarship for the year 2001-2002 for consistent academic performance.
- Scholarship awarded for two years for class XI & XII – Bhawan's Dr. K.M. Munshi Memorial Scholarship in July 1997.
- National Scholarship scheme – merit certificate for class X awarded by Director of Education, Govt. of NCT Delhi, India in lieu of monetary scholarship.

**References:**

**Dr. Huan Liu** (*Huan.Liu@asu.edu*)

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