

PARAG SINGLA

6706 Lathrop Court
Sugar Land TX
77479
Phone: 206.465.4047
parag@cs.washington.edu
www.cs.washington.edu/homes/parag/

RESEARCH INTERESTS

Machine Learning, Data Mining, Satisfiability Testing, Social Networks Analysis

EDUCATION

- **Doctor of Philosophy**
Department of Computer Science & Engineering
University of Washington, Seattle, WA
Thesis: Markov Logic: Theory, Algorithms and Applications
Graduation: March 2009
- **Master of Science**
Department of Computer Science & Engineering
University of Washington, Seattle, WA
Thesis: Collective Record Linkage
Graduation: June 2004
- **Bachelor of Technology**
Department of Computer Science & Engineering
Indian Institute of Technology Bombay, India
Thesis: Keyword Search In Databases
Graduation: August 2002

PUBLICATIONS

- Parag Singla. Markov Logic: Theory, Algorithms and Applications. *PhD Dissertation, University of Washington, Seattle, 2009.*
- Parag Singla and Pedro Domingos. Lifted First-Order Belief Propagation. *AAAI-08 (pp. 1094 - 1099).*
- Parag Singla and Matthew Richardson. Yes, There is a Correlation - From Social Networks to Personal Behavior on the Web. *WWW-08 (pp. 1 - 7).*
- Pedro Domingos, Stanley Kok, Daniel Lowd, Hoifung Poon, Matthew Richardson and Parag Singla. Markov Logic. *In Probabilistic Inference and Logic Programming (edited by L. De Raedt, P. Frasconi, K. Kersting and S. Muggleton.). To appear.*
- Parag Singla and Pedro Domingos. Markov Logic in Infinite Domains. *UAI-07 (pp. 368 - 375).*
- Parag Singla and Pedro Domingos. Entity Resolution with Markov Logic. *ICDM-06 (pp. 572 - 582).*
- Parag Singla and Pedro Domingos. Memory-Efficient Inference in Relational Domains. *AAAI-06 (pp. 488 - 493).*
- Pedro Domingos, Stanley Kok, Hoifung Poon, Matthew Richardson and Parag Singla. Unifying Logical and Statistical AI. *AAAI-06 (pp. 2 - 7).*
- Parag Singla and Pedro Domingos. Discriminative Training of Markov Logic Networks. *AAAI-05 (pp. 868 - 873).*

- Parag Singla and Pedro Domingos. Object Identification with Attribute-Mediated Dependences. *PKDD-05 (pp. 297 - 308)*.
- Parag and Pedro Domingos. Multi-Relational Record Linkage. *KDD-2004 Workshop on Multi-Relational Data Mining (pp. 31-48)*.
- B. Aditya, Soumen Chakrabarti, Rushi Desai, Arvind Hulgeri, Hrishikesh Karambelkar, Rupesh Nasre, Parag and S. Sudarshan. User Interaction in the BANKS System. *ICDE-03 (pp. 786 - 788)*.
- B. Aditya, Gaurav Bhalotia, Soumen Chakrabarti, Arvind Hulgeri, Charuta Nakhe, Parag and S. Sudarshan. BANKS: Browsing and Keyword Searching in Relational Databases. *VLDB-02 (pp. 1083 - 1086)*.

RESEARCH AND PROFESSIONAL EXPERIENCE

- **University of Washington, Seattle** **Jan 04 - Dec 08**
 Position: Research Assistant
 Projects:
 - Algorithms for efficient learning and inference in Markov logic
 - Extending the semantics of Markov logic to infinite domains
 - Application of Markov logic to entity resolution
 - Object-Identification using collective information
- **Kodak Research Labs, Rochester** **Jun 07 - Aug 07**
 Position: Summer Intern.
 Project: Discovering social relationships from personal photo collections using Markov logic.
- **Microsoft Research, Redmond** **Jul 06 - Sep 06**
 Position: Summer Intern.
 Project: Finding a correlation between the personal behavior of people on the web (i.e. keyword searches, demographics etc.) and their social behavior (i.e. talking characteristics on IM).
- **IIT Bombay, Mumbai** **Jul 01 - Aug 02**
 Position: Undergraduate Researcher.
 Project: Supporting web like keyword search in databases.
- **IBM India Research Lab, New Delhi** **May 01 - Jul 01**
 Position: Summer Intern.
 Project: Agglomerative clustering of a set of proper nouns using the features extracted from the web.

TEACHING EXPERIENCE

University of Washington, Seattle. *Teaching Assistant.*

- CSE P546: Data Mining (Professional Masters) **Au 04, Sp 03**
- CSE 531: Computability and Complexity (Graduate) **Au 03**
- CSE 142/143: Computer Programming (Undergraduate) **Wi 03, Au 02**

PATENTS AND SOFTWARE

Patents Filed:

- Jiebo Luo, Parag Singla, Henry Kautz and Andrew Gallagher. Discovering Social Relationships from Personal Photo Collections. Eastman Kodak Company, 2008.
- Matthew Richardson and Parag Singla. Using Joint Communication and Search Data. Microsoft Corporation, 2007.

Software Developed:

- Alchemy: System for Statistical Relational AI.
<http://alchemy.cs.washington.edu>.
(Along with various other contributors.)

PROFESSIONAL ACTIVITIES

- Reviewer for
 - ACM Transactions on Knowledge Discovery from Data
 - Annals of Mathematics and Artificial Intelligence
- Volunteer for Engineering Open House, University of Washington, 2007.

ACADEMIC ACHIEVEMENTS

- Winner of the Student Travel Award at ICDM-06. **2006**
- Winner of the Best Paper Award at PKDD-05. **2005**
- In the Joint Entrance Examination for securing admission to the IIT, was placed **Ninety Nine** in India among approximately 100,000 competitive students who took the examination. **1998**
- Recipient of Merit Certificate under National Scholarship Scheme for CBSE (Central Board for Secondary Education) Grade Twelve Examination, India. **1998**
- Ranked **1st** in the whole District for the High School (Grade Ten) Examination, India. **1996**

EXTRA CURRICULAR ACTIVITIES

- Volunteer, Hindu Swayamsevak Sangh, USA. **Jan 2009 - till date**
- Board Member, Hindu YUVA, University of Washington. **2004 - 2008**
- Coordinator, Group for Rural Activities, IIT Bombay. **2001 - 2002**
- Recipient of the Organizational Color, IIT Bombay. **2002**

REFERENCES

- **Pedro Domingos**
Department of Computer Science & Engineering,
University of Washington, Seattle.
pedrod@cs.washington.edu
 - **Henry Kautz**
Department of Computer Science,
University of Rochester, Rochester.
kautz@cs.rochester.edu
 - **Marina Meila**
Department of Statistics,
University of Washington, Seattle.
mmp@stat.washington.edu
 - **Matthew Richardson**
Microsoft Research, Redmond.
mattri@microsoft.com
 - **Jiebo Luo**
Kodak Research Labs, Rochester.
jiebo.luo@kodak.com
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