

Rita Sharma

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Phone: (604) 692-0850

Education

Ph.D., Computer Science

University of British Columbia, November, 2006

Dissertation: Probabilistic Inference with Large Discrete Domains

Advisor: Prof. David Poole

M.Sc., Computer Science

University of British Columbia, February, 2001

Thesis: Symmetric Collaborative Filtering using the Noisy Sensor Model

Advisor: Prof. David Poole

M.Sc., Computer Science

Indian Institute of Technology (IIT) Roorkee, India, March, 1990

B.Sc., Electrical Engineering

Indian Institute of Technology (IIT) Roorkee, India, May, 1988

Research Experience

Graduate Student Researcher

2001-2005

Department of Computer Science, University of British Columbia

- Supervisor: Prof. David Poole
- Conducted research on Probabilistic Reasoning, Identity Uncertainty.

Graduate Student Researcher

2001-2002

Project sponsored by IBM, Canada

- Supervisor: Prof. David Poole
- Conducted research on Person Identification (applied to health care)
- Submit report to IBM under title: A Decision Theoretic Approach to Person Identification

Graduate Student Researcher

2000 - 2001

Department of Computer Science, University of British Columbia

- Supervisor: Prof. David Poole
- Conducted research on collaborative filtering.

DAAD Research fellow

June 1996 - November 1997

Department of Computer Science, Technical University Darmstadt, Germany

- Supervisor: Prof. Wolfgang Bibel
- Conducted research on abduction.

Research Assistant

1989 - 1990

Department of Computer Science, IIT Roorkee, India

Supervisor: Prof. J.P. Gupta

Teaching Experience

Graduate Teaching Assistant

1999 - 2004

Department of Computer Science, The University of British Columbia

- CS 311: Programming Languages [2 terms]
- CS 322: Introduction to Artificial Intelligence [2 terms]
- CS 340: Introduction to Machine Learning [1 term]
- CS 312: Functional and logic programming [2 terms]

Employment

Software Engineer

1997 - 1998, 1990-96

Council of Scientific and Industrial Research, India

- Design and development of a Finite Element Analysis application using C.
- Expert System for Fire detection in Building using PROLOG.
- Design and development of structural engineering applications using Fortran 77, C and HPGL.
- Simulation of small scale Petroleum Refinery using C++ and Graphical User Interface using Visual Basic.

Referred Publications

Rita Sharma, and David Poole, "Probabilistic Reasoning with Hierarchically Structured Variables", In Proceedings of the Nineteenth International Joint Conference on Artificial Intelligence (IJCAI 05), Edinburgh, August 2005.

Rita Sharma, and David Poole, "Probability and Equality: A Probabilistic Model of Identity Uncertainty", In Proceedings of the Eighteenth Canadian Conference on Artificial Intelligence (AI 05), Victoria, pages 227-231, May 2005.

Giuseppe Carenini, and Rita Sharma, "Exploring more Realistic Measures for Collaborative Filtering", In Proceedings of the Nineteenth National Conference on Artificial Intelligence (AAAI 2004), San Jose, CA, USA, pages 749-754, 2004

Rita Sharma "Representation and Reasoning with Hierarchically Structured Variables", AAAI Technical Reports of the KR-04 Doctoral Consortium (KRDC 2004), Whistler, Canada.

Rita Sharma, and David Poole, "Efficient Inference in Large Discrete Domains" In Proceedings of the Nineteenth Conference on Uncertainty in Artificial Intelligence (UAI 2003) Acapulco, pages 535-542, August 2003.

Rita Sharma, and David Poole, "Symmetric Collaborative Filtering using the Noisy Sensor Model" In Proceedings of the Seventeenth Conference on Uncertainty in Artificial Intelligence (UAI 2001), Seattle, pages 488-495, August 2001

Tim Braun, Anne Condon, Alan J. Hu, Kai S. Juse, Marius Laza, Michael Leslie, and Rita Sharma, "Proving Sequential Consistency by Model Checking" IEEE International High Level Design Validation and Test Workshop (HLDVT), November 2001.

Other Publications

S.C. Chakrabarti, K.G. Garg, and Rita Sharma, "A Software Package for Computer Aided Design and Draughting of Pile Foundation", The Indian Concrete Journal, India, pages 188-192, April 97.

Shailesh Agarwal, Rita Sharma, and S.C. Chakrabarti, "General Purpose Pre- and Post Processor of Matrix Structural Analysis Program", The Institution of Engineers, India, November 94.

Rita Sharma, and S.C. Chakrabarti, ``Computer Aided Design and Draughting of Footings'', The Institution of Engineers, India, November 93.

Professional Service

Reviewer for IJCAI-05

Talks & Presentations

Probabilistic Reasoning with Hierarchically Structured Variables. The Nineteenth International Joint Conference on Artificial Intelligence (IJCAI 05), Edinburgh, August 2005.

Representation and Reasoning with Hierarchically Structured Variables. Poster Presentation, The Doctoral Consortium, Ninth International Conference on Principles of Knowledge Representation and Reasoning (KRDC 2004), Whistler, Canada

Efficient Inference in Large Discrete Domains. Poster Presentation, The Nineteenth Conference on Uncertainty in Artificial Intelligence (UAI 2003) Acapulco, August 2003.

Symmetric Collaborative Filtering using the Noisy Sensor Model. Poster Presentation, The Seventeenth Conference on Uncertainty in Artificial Intelligence (UAI 2001), Seattle, August 2001.

Symmetric Collaborative Filtering using the Noisy Sensor Model. Poster Presentation, The Tenth Annual PRECARN-IRIS Conference, Ottawa, Canada, May 2001.

Awards/Honours

- Travel fellowship KR-04
- Monash Graduate Fellowship for doing Ph.D. in Monash University Australia, 1998
- DAAD Research Fellowship for doing Research in Artificial Intelligence at Technical University Darmstadt Germany, Jun'96 - Oct'97
- Commonwealth Fellowship for doing Ph.D. in Artificial Intelligence at Edinburgh University, Scotland, U.K., June'96.
- GATE fellowship, IIT Roorkee, India, 1988-90
- Deans' List, IIT Roorkee, India, 1984-88