

Soumyadeb Mitra

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Research Interests

Storage Systems, Compliance Storage, Parallel I/O.

Education

- 2004—Current **PhD Candidate**, Computer Science, University of Illinois at Urbana Champaign
Advisor Prof. Marianne Winslett
GPA: 4.0/4.0
- 1997—2002 **B.Tech. and M.Tech.**, Computer Science, Indian Institute of Technology, Delhi
GPA: 9.15/10.0, Rank: 1

Experience

- July 2006—Dec 2006 **Co-op, IBM Almaden Research Center, San Jose, USA.**
Designed and evaluated a query centric scheme for document lifecycle management.
- May 2005—Aug 2005 **Summer Intern, IBM Almaden Research Center, San Jose, USA.**
Designed and implemented a trustworthy indexing scheme for compliant records.
- Jan 2004—Jun 2006 **Research Assistant, Computational Science and Engineering, UIUC.**
Developed LBIO, a log based I/O mechanism for scientific simulations. Also worked on the Panda I/O library, a high performance parallel I/O library.
- Jun 2002—Dec 2003 **Kritikal Solutions Pvt. Ltd., Co-Founder**
Participated in company's technical and business activities.

Awards & Honors

- Recipient of IBM PhD Fellowship 2007-2008
- Best paper award in VLDB 2006
- Best paper award in Storage Security and Survivability Workshop 2006
- Institute silver medal of IIT Delhi for securing 1st position in the dual-degree batch of 2002.
- CISCO fellowship at IIT Delhi for pursuing graduate studies, 2001-2002.
- 1st rank in predefined software design contest in Tryst-99 (IIT Delhi's annual technical festival).
- 3rd rank in the Regional Mathematical Olympiad in Delhi, 1997.

Journal Publications

1. Soumyadeb Mitra, Marianne Winslett, Windsor H. Hsu, Kevin C.-C. Chang, **Trustworthy Keyword Search for Compliance Storage**, VLDB Journal Special Issue for Outstanding VLDB 2006 papers.

Refereed Conference Publications

1. Soumyadeb Mitra, Marianne Winslett, Windsor H. Hsu, Xiaonan Ma, **Trustworthy Migration and Retrieval of Regulatory Compliant Records**, IEEE Conference on Mass Storage Systems and Technologies (MSST) 2007.
2. Soumyadeb Mitra, Windsor H. Hsu, Marianne Winslett, **Trustworthy Keyword Search for Regulatory Compliant Record Retention**, Very Large Data Bases (VLDB) 2006. **Best paper award**
3. Soumyadeb Mitra, Rishi R. Sinha, Marianne Winslett, Xiangmin Jiao, **An efficient, non-intrusive, log based I/O mechanism for scientific simulations on clusters**, IEEE Conference on Cluster Computing (Cluster) 2005.

4. Rishi R. Sinha, Soumyadeb Mitra, Marianne Winslett, **Bitmap Indexes for large Scientific Data Sets**, IEEE International Parallel and Distributed Processing Symposium (IPDPS) 2006.

Conference Publications in Submission

5. Soumyadeb Mitra, Windsor H. Hsu, Marianne Winslett, **A Query Centric Approach to Information Lifecycle Management**.

Refereed Workshop Publications

1. Soumyadeb Mitra, Marianne Winslett, **Secure Deletion from Inverted Indexes on Compliance Storage**, Storage Security and Survivability Workshop, in conjunction with CCS 2006. **Best paper award**

Skills

Languages: C, C++, Perl

Systems: Experience with operating system and linux kernel programming. Experience in parallel programming using MPI and Open-MP.

Relevant Coursework

UIUC: Advanced Operating Systems, Combinatorial Algorithms, Special Topics in Storage Systems, Reliable and Robust Computer Systems, Artificial Intelligence, Advanced Computer Security, Database Systems, Trustworthy Computing, Introduction to Parallel Programming.

IITD: Data Structures, Discrete Mathematics, Logic, Programming Languages, Compilers, Theory of Computation, Analysis and Design of Algorithms, Operating Systems, Computer Networks, Digital Image Processing, Computer Vision, File structures, Database Management Systems, Computer Architecture, Advanced Computer Architecture, Cryptography, Distributed Systems, CAD for Digital Systems, Digital Hardware Design, Abstract Algebra, Probability and Stochastic Processes, Complex Analysis, Vector spaces, Real Analysis,

Extra Curricular Activities

- Volunteer and Project Coordinator (2005-2006) for **Asha for Education**: an organization working for basic education in India
- Completed the chicago marathon in 2005.