

## CHENYUN DAI

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Visa Type: F1 Student

### OBJECTIVE

Summer Intern of 2009

### EDUCATION

Purdue University, West Lafayette, IN August 2007 – May 2012 (Expected)  
Ph.D. in Computer Science  
GPA: 3.90/4.0  
Advisor: Professor Elisa Bertino  
Research Area: Database Systems, Information Security

Fudan University, Shanghai, P.R.China June 2006  
Master in Computer Science  
GPA: 3.66/4.0(overall), 3.79/4.0(major)  
Advisor: Professor Aoying Zhou  
Thesis: Peer-to-Peer Systems of Two-Layer Architecture and Probabilistic Search

East China Normal University, Shanghai, P.R.China July 2003  
Bachelor in Computer Science  
GPA: 3.58/4.0(overall), 3.83/4.0(major)  
Rank in department: 1<sup>st</sup>/208  
*Completed the FOUR-year undergraduate program in three years*

### RESEARCH EXPERIENCE

**Research Assistant** CS Department, Purdue University  
August 2007 – August 2008 West Lafayette, IN  
Project: Systematic Control and Management of Data Integrity, Quality and Provenance for Command and Control Applications

- Designed and implemented efficient query evaluation algorithms to support confidence policies based on lineage propagation.
- Designed and implemented a framework for evaluating data trustworthiness based on data provenance.
- Designed and implemented a tool on top of ORACLE 11G for interactive visualization and analysis of microdata anonymization techniques. The tool adopts two recently proposed k-anonymity algorithms. It also has friendly GUI for users to import and edit hierarchy files, set system parameters, observe statistical information and review the anonymization results.
- Designed and implemented an integrity policy language on top of ORACLE 11G. ANTLR is used to translate the integrity policy language to PL/SQL and PL/SQL block is called via JDBC.

**Research Assistant** CS Department, Fudan University  
September 2003 – July 2007 Shanghai, P.R.China

- Designed and implemented efficient and accurate search algorithms in unstructured P2P systems.
- Implemented an underlying P2P protocol that supports point-to-point instant message transfer and flooding search with a time-to-live (TTL).
- Conducted research and development on supporting high dimensional similarity search in a chord-like P2P system.

**Research Intern**

October 2004 – March 2005

National University of Singapore  
Singapore

- Conducted development and research on supporting continuous queries over moving objects in Peer-to-Peer systems.
- Conducted development and research on k-median clustering over moving objects.

**TEACHING EXPERIENCE**

**Teaching Assistant**

August 2008 – May 2009

CS Department, Purdue University  
West Lafayette, IN

- CS 555: Cryptography
- CS 251: Data Structures

**Teaching Assistant**

February 2005 – June 2005

CS Department, Fudan University  
Shanghai, P.R.China

- Discrete Mathematics

**SELECTED PUBLICATIONS**

10. **Chenyun Dai**, Gabriel Ghinita, Elisa Bertino, Ji-Won Byun, Ninghui Li. TIAMAT: a Tool for Interactive Analysis of Microdata Anonymization Techniques. *Submitted to ACM SIGMOD Conference (Demo Track)*, 2009.
9. **Chenyun Dai**, Dan Lin, Murat Kantarcioglu, Elisa Bertino, Ebru Celikel, Bhavani Thuraisingham. Query Processing Techniques for Compliance with Data Confidence Policies. *Submitted to the 14th ACM symposium on access control models and technologies (SACMAT)*, 2009.
8. Elisa Bertino, **Chenyun Dai**, Murat Kantarcioglu. The Challenge of Assuring Data Trustworthiness. To appear in *the 14th International Conference on Database Systems for Advanced Applications (DASFAA)*, 2009.
7. **Chenyun Dai**, Dan Lin, Elisa Bertino, Murat Kantarcioglu. An Approach to Evaluate Data Trustworthiness Based on Data Provenance. In *proceedings of the 5th VLDB Workshop on Secure Data Management (SDM)*, 2008.
6. Elisa Bertino, **Chenyun Dai**, Hyo-Sang Lim, Dan Lin. High-Assurance Integrity Techniques for Databases. In *proceedings of the 25th British National Conference on Databases (BNCOD)*, 2008.
5. Aoying Zhou, Linhao Xu, **Chenyun Dai**. Adaptive Probabilistic Search over Unstructured Peer-to-Peer Computing Systems. *World Wide Web Journal* vol.9, no.4, pp. 537-556, 2006.
4. Linhao Xu, **Chenyun Dai**, Wenyan Cai, Shuigeng Zhou, Aoying Zhou. Towards Adaptive Probabilistic Search in Unstructured P2P Systems. In *proceedings of the 6th Asia-Pacific Web Conference (APWEB)*, pp. 258-268, April 2004. (**Best student paper**)
3. **Chenyun Dai**, Weining Qian, Bo Ling, Aoying Zhou. Peer Clustering for Similarity Search in P2P Systems. (in Chinese) *Journal of Computer Science* vol.31(10.suppl), pp. 613-616, 2004.

2. **Chenyun Dai**, Lin Chen. Distributed Multimedia Synchronization Designing Method Based on Java. (in Chinese) *Journal of Computer Engineering* vol.29, no.3, pp. 126-128, 2003.

1. Zhihong Chong, **Chenyun Dai**, Aoying Zhou. Approximate K-Median of Location Steams with Redundancy and Inconsistency. *Technique Report*, 2006.

#### HONORS AND SCHOLARSHIPS

Best Student Paper Award, 6th Asia-Pacific Web Conference (APWEB 2004).

Graduate Entrance Examination Waiver, Fudan University, 2003.

Excellent Graduate, East China Normal University, 2003.

Excellent Student, East China Normal University, 2003 (the only student in the department, highest honor for undergraduate students).

Excellent Undergraduate Thesis, East China Normal University, 2003.

Second prize of the 7th Contest on students' research in the computer science department, East China Normal University, 2002.

Third prize of the 10th Contest on students' research, East China Normal University, 2002.

College Entrance Examination Waiver, East China Normal University, 2000.

Second Class Graduate Scholarship, Fudan University, 2004.

China Computerworld Magazine Scholarship (Top 2 students in the department), 2002.

Special Class Scholarship (among top 2%), East China Normal University, 2000 – 2002.

#### GRADUATE COURSES

Operating Systems

Information Security

Cryptography

Database Security

Compiling and Programming Systems

Algorithm Design, Analysis, and Implementation

Logical Methods for Information Security

#### PROFESSIONAL ACTIVITIES

**External Reviewer for Conferences:** ICDM (2008), ISMIS (2008), SIGMOD (2007), GCC (2006), ICDCS (2005).

**Website Chair:** SPRINGL (2008).

#### SKILLS

**Computer Languages:** Java, C, C++, PHP, Java script, L<sup>A</sup>T<sub>E</sub>X, HTML, x86 assembly

**Tools and Systems:** Eclipse, Microsoft Office, Oracle, Microsoft Visual Studio