

Jia Tao

Department of Computer Science, Iowa State University, Ames, IA 50011 Email: jtao@iastate.edu

EDUCATION:

01/2007 – 05/2009 Ph. D. candidate Computer Science, Iowa State University

08/2004 – 12/2006 M. S. Computer Science, Iowa State University.

09/1996 – 07/2000 B. E. Computer Science& Engineering, ZheJiang University, Hangzhou, China

PUBLICATION:

- **Jia Tao and Shashi Gadia, *Concept of a Value in Multilevel Security Databases***, under submission.

PROFESSIONAL EXPERIENCE:

- **Research** (10/2004 - present, Computer Science Dept. ISU, Ames, IA, USA):
 - Research interest: Multilevel Security Database, Relational Parametric Databases, Relational databases, Data warehousing, XML Databases.
 - Research result: Built a model for storage and query of Multilevel Security (MLS) Database (a.k.a. Mandatory Access Control) by using parametric approach. Defined the operators that would lead to good algebraic identities which are a foundation stone of a declarative algebraic SQL-like query language. The result has been submitted as a paper.
 - On-going research (the central focus of my research is to build a framework which supports most natural query of data):
 - Designing grammar of SQL-like query language for MLS model.
 - Designing a framework for spatio-temporal data warehousing.
- **Intern on health care research and web development** (05/2006 – 08/2006, Palo Alto Research Center, Palo Alto, CA, USA):
 - Requirement Analyst: Talked to the potential users to find out the specific requirements. After finished the system implementation, talked to the users and got feedback to evaluate the current version and improve the design.
 - System Designer and Developer: Design (including user interface, usability, data structure) and implement the health care system, built a prototype by using Apache, MySQL and php.
- **XML-based website developer** (09/2005 – 12/2005, Computer Science Dept. ISU, Ames, IA, USA):
 - System Designer and Developer: Designed a matching system – TA assignment website for Computer Science Department, Iowa State University, to assign TAs of courses. The goal of the project is to assign TAs to courses according to TAs interest and the instructors' special requirement. The system generates XML files as matching results.
- **Website developer** (05/2005 – 08/2005, Computer Science Dept. ISU, Ames, IA, USA):
 - Developer: Redesign and implementation of the Technical Report System for Computer Science Department, Iowa State University by using Apache, MySQL and php.
- **R&D Engineer, developing financial software** (08/2000 – 07/2004, the BOCsoft Information Industrial Corporation Limited of the Bank of China, ShenZhen, China):
 - System Architect (11/2003 - 06/2004): System design, detailed design, training, documentation and project management responsibilities for a major redesign of the Great Wall International Credit Card System (GWIC) 4th Edition. Redesign was to develop new functions of European Card, Electronic Slip liquidation, to maximize code reuse, and to improve the object-oriented abstraction of business logic.

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- Quality control auditor/Team leader (09/2003): Served as the leader of internal auditors for Quality Quest (ISO 9001:2000).
- Business Analyst and User Liaison (05/2002 - 11/2003): Served as business analyst and user liaison for the Great Wall International Credit Card (GWIC) 2nd & 3rd Edition. Responsibilities include requirement analysis, detailed design on Payment Management, Dun Management, and part of Cardholder Management of this project, and system integration with Call Center System related to GWIC.
- Project Manager (08/2002 - 02/2003): Served as lead for Merchant Sales Slip (MSS) system development. Responsibilities include system design and implementation as well as project management.
- Researcher and Designer (06/2001 - 04/2002): Served as system designer and testing engineer in the GWIC 1st Edition migration project. Responsibilities include overall system operation study, analysis of payment management subsystem, programming, product installation, testing, and system integration.
- Designer (08/2000 - 06/2001): Served as Object-Oriented designer in the Enterprise Banking System (EBS) of Bank of China (BOC).
- **Intern** (07/1999 - 07/2000, *Litong Network Company, Hangzhou, China*): **Programmer** System design and implementation of Management Information System of Litong Network Company.
- **Research assistant** (08/1998 - 09/1998, *Computer Center of the Zhejiang University, Hangzhou, China*): Implementation of an experimental research database system using B+ tree.

RELEVANT GRADUATE LEVEL COURSES:

Principles of Database Systems	Theory of Computation, Randomness in Computation
Implementation of Database Systems	Principles of Operating Systems
Principles of Distributed & Network Programming	Advanced Topics in Database Systems
Advanced Protocols and Network Security	Formal Methods
Design and Analysis of Algorithms	

COMPUTER LANGUAGES & TOOLS:

Programming Languages: JAVA(>5 years), PHP(>2 years), C/C++

Database technologies: IBM DB2(>3 years), MySQL(>2 years), SQL(>5 years), JDBC

Platforms: Win 9x/ME/2K/XP/2003, Linux

Web based Technologies: JSP(>5 years), JavaScript(>5 years), Servlet, XML, HTML

Software: IBM Eclipse, Rational Rose, Rational RequisitePro, IBM Websphere, IBM VisualAge, Apache Tomcat.

TEACHING EXPERIENCE:

- **Instructor:** Introduction to Database Management System,
- **Teaching Assistant:** Introduction to Object-Oriented Programming, Database Implementation, Principles of Network and Distributed Programming, Design and Analysis of Algorithms, Introduction to Database Management System

ACADEMIC AWARDS:

2004 PACE (Premium for Academic Excellence) Award, Computer Science, Iowa State University
1996 - 1999 Academic Scholarships, Computer Science, Zhejiang University

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1998 Excellence in Foreign Language Scholarship (English), Zhejiang University
1996 Award of excellent admitted student, Computer Science, Zhejiang University

ACTIVITY:

President of 2007-08 Graduate Advisory Committee in Computer Science Department, Iowa State University