

Résumé

TITLE: Dr
NAME: Jinli Cao
POSITION: **Senior Lecturer**
Department of Computer Science and Computer Engineering
School of Engineering and Mathematical Sciences
Faculty of Sciences, Technology and Engineering
La Trobe University, Australia.
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DEGREES: PhD in Computer Science (1997)
from Department of Mathematics and Computing
University of Southern Queensland, Australia.
BSc (4 years equivalent to honor A) (1982) in Computing
from Department of Mathematics and Computing
Hebei University, China.

PROFESSIONAL MEMBERSHIPS & ACTIVITIES

Member of IEEE Computer Society: No. 41372276.
Australian Research Council (ARC) Grant Assessor in 2002.
PC Member of a number of International Conferences
The International Association of Science and Technology for Development.
APWeb04, The Sixth Asia Pacific Web Conference,
Hangzhou, China, April 14-17, 2004
Member of Editorial Reviewer Board,
International Journal of Distance Education Technologies.
Computing Coordinator
in the Department of Mathematics and Computing, USQ, Jan 2002- July 2002

ACTIVE RESEARCH AREAS:

Transaction Management in Multidatabase Systems
Concurrency Control and Recovery algorithms
Web Database Systems
Data Management in Sensor Networks
Distributed Query Processing
Workflow Management
Web services and Transaction Support

Electronic Commerce & Payment system Security
Mobile Database Management
Data Warehousing and OLAP

RESEARCH GRANTS:

Faculty Block Infrastructure Grant, \$6579, 2003, \$1900, 2006
Faculty of Science Technology and Engineering
LA TROBE University
Earlier Career Research grant, \$2500, 1999-2000
University of Southern QLD

RESEARCH PROJECTS:

Mobile Transaction Management in Wireless Environment
Hybrid Data Allocation Scheme for Mobile Database management
Web Services transaction management
Web document replication update propagation

EMPLOYMENT HISTORY:

Dr Jinli Cao has over 18 years teaching experiences in computer science at different universities. She has broad teaching knowledge such as Database Design, Database Management Systems, Objecty Oriented Software Engineering, Programming Languages (C, C++, Java and Scheme), Artificial Intelligent and Business Intelligent systems.

- **Senior Lecturer** (Jan 2003- current, Level C)

Department of Computer Science and Computer Engineering
La Trobe University, Australia.

Lecturing Courses:

CSE41DSS Decision Support Systems, Semester 1
CSE22AI ARTIFICIAL INTELLIGENCE
CSE12IPJ Intermediate OO Programming Using JAVA
CSE12IPA Intermediate OO Programming Using JAVA (accelerated)

- **Lecturer** (June 1999- 2002, Level B)

Department Mathematics and Computing
Faculty of Sciences
University of Southern Queensland.

Lecturing Courses:

CSC3400 Database Systems (S1, 2001)
CSC4403 Advanced Programming in Java (initiated, S1, 2000 - 2002)

CSC4405 Object-Oriented Design with UML (initiated, S2, 2000 - 2002)
CSC2408 Software Development Tools (S1, 2000)
CSC3410 Multimedia Systems and Communications (S2, 1999)
CSC3411 Information Technology Project (S1 & 2, 1999-2002)
CSC2400 Programming C (S2, 2001)
CSC1400 Introductory Computing (S2, 1999)

The subject Leader for “*Information Technology Project*”

Supervision of projects for third year students & postgraduates
in the areas of Web-based applications; and
software engineering and information systems.

Associate Supervisor of two PhD students:

Acting Principal Supervisor (S1, 2002).

- **Lecturer**, Level B (July 1998 - June 99)

Department of Computer Science
James Cook University, Queensland, Australia.

Lecturing and developing the following subjects:

Advanced Database systems
Information Systems
Advanced Software Engineering
Principles of Programming Languages

- **Associate Lecturer** (Feb 1997- Jun 1998) and Part time tutor (Mar 1994 - 1996) in

Department Mathematics and Computing
Faculty of Sciences
University of Southern Queensland.

Tutorials, marking and laboratory demonstration in courses:

System Analysis and Development
Advanced Procedural Programming In C
Introductory Professional Programming
Introductory Computing.

- **PhD studies** (March 1993 - Feb 1994):

School of Information Systems
Faculty of Information Technology
Queensland University of Technology (QUT).

- **PhD studies** (March 1994 - Feb 1997)

Department Mathematics and Computing
Faculty of Sciences
University of Southern Queensland.

- **Research Assistant:** (casual, Feb 1995 - May 1997):
School of Information Systems, QUT.
 - **Lecturer** (Feb 1982 - Feb 1990):
Department of Mathematics and Computing
at Hebei University, China.
- Lecturing and developing following subjects:
- BASIC Programming
 - Data Structures and Algorithms
 - Database Design and Database Management Systems
 - PASCAL Programming
 - Compiler Techniques
 - Operating Systems
 - Artificial Intelligence.
- Supervision of the fourth year students projects in 1989:
The projects were to develop information systems
for BaoDing medicine manufacturer, implemented using dBaseIII.
- Participating in a research project on BASIC language interpreter (Mar 1982 - Dec 1983):
Department of Mathematics and Computing in Hebei University.
Writing an interpreter for a minicomputer
in assembly and binary languages.

The following are the URLs of my subjects at La Trobe University:

- CSE41DSS: Decision Support Systems Semester 2
<http://student.cs.latrobe.edu.au/cse2/cse41dss/>
- CSE22/42AI: ARTIFICIAL INTELLIGENCE
<http://student.cs.latrobe.edu.au/cse2/cse22ai/>
- CSE12IPJ/CSE12IJA: INTERMEDIATE OOP using Java
<http://student.cs.latrobe.edu.au/cse1/cse12ija/>

The following are the URLs of my subjects at USQ:

- Database Systems <http://www.sci.usq.edu.au/units/66307/2001>
- Software development Tools: <http://www.sci.usq.edu.au/units/66208/>
- Advanced Programming in Java: <http://www.sci.usq.edu.au/units/66413>
- Object Oriented Design: <http://www.sci.usq.edu.au/units/66415>
- Multimedia Systems and Communications:
<http://www.sci.usq.edu.au/units/66338/99teaching/index.html>

The URLs of taught subjects at JCU:

- Information Systems
<http://www.cs.jcu.edu.au/ftp/web/teaching/Subjects/cp1500/1999/CP1500.HTML>
- Advance Software Engineering
<http://www.cs.jcu.edu.au/ftp/web/teaching/Subjects/cp3120/1998/CP3120.HTML>
- Advanced Database Systems
<http://www.cs.jcu.edu.au/ftp/web/teaching/Subjects/cp3020/1998/CP3020.HTML>
- Principle Programming Languages
<http://www.cs.jcu.edu.au/ftp/web/teaching/Subjects/cp2003/1998/CP2003.HTML>

Publication List

1. Bilal Choudry, P. Bertok and J. Cao, Cost based web services transactions management, The International Journal Web and Grid Services, Vol. 2, No. 2, 2006, page 198-220. Inderscience Publishers, (www.inderscience.com).
2. MingJian Tang, Jinli Cao, A dynamic mechanism for handling mobile computing environmental changes, the Proceedings of the First International Conference on Scalable Information Systems (INFOSCALE 2006), ACM Society, 29 May - 02 June, 2006, Hong Kong. pp. 1-9.
3. Wang, H., Zhang, Y., and Cao, J. (2006), Ubiquitous Computing Environments and Its Usage Access Control. The First International Conference on Scalable Information Systems, InfoScale 2006, Hong Kong, pp. 1-9.
4. H. Wang, J. Cao and L. Sun, Role-based delegation with negative authorization, The Eighth Asia Pacific Web Conference (APWEB06), LNCS, , Harbin, China, Jan , 2006.
5. Rena Logothetis and Jinli Cao Web Services Oriented Transactions Using Partial dependency, IEEE ITI 3rd International Conference on Information & Communications Technology (ICICT 2005), p619-632, Dec 5-6, 2005.
6. Jingyu Hou and Jinli Cao, Matrix Model for Web Page Community Construction, International Journal of Science and Research (2005).Vol. 1 (1), Page 21-30, Oct, 2005.
7. Bilal Choudry, P. Bertok and J. Cao, A cost based coordination model for long running transactions in Web services, The Proceedings of the Seventh International Conference on Information Integration and Web Based Applications & Services (IIWAS2005), page 97-108, 19-21 September 2005, in Kuala Lumpur, Malaysia.

8. Xiaohua Jia, Deying Li, H. Du, and J. Cao, On Optimal Replication of Data Object at Hierarchical and Transparent Web Proxies, *IEEE Trans on Parallel and Distributed Systems*. Page 673-685, Vol. 16, No. 8, August 2005.
9. J. Cao, L. Sun & H. Wang , Towards secure XML document with usage control , *The Seventh Asia Pacific Web Conference (APWEB05)*, LNCS 3399, Page 296-307, ShangHai, China, March29-April 2, 2005.
10. H. Wang, J. Cao, Y. Zhang, A flexible payment scheme and its role based access control, *IEEE Transactions on Knowledge and Data Engineering*, Vol. 17, No. 3, pages: 425-436, March, 2005.
11. H. Wang, L. Sun, Y. Zhang, J. Cao, "Authorization Algorithms for the Mobility of User-Role Relationship" in the *Proceedings of the 28th Australasian Computer Science Conference-2005*, page 69-77, Newcastle, NSW, Australia, January 31 - February 3, 2005
12. H. Wang, Y. Zhang, J. Cao, V. Varadharajan, Achieving Secure and Flexible M-Services Through Tickets, In B.Benatallah and Z. Maamar, Editor, *IEEE Transactions Special issue on M-Services*. *IEEE Transactions on Systems, Man, and Sybernetics*. January, 2004.
13. H. Wang, J. Cao, Y. Zhang, X. Huang, A flexible electronic payment scheme and its management, *Information*, Vol. 7, No. 2, 2004.
14. H. Wang, J. Cao and Y. Zhang, Identifying Role-Based Access Constraints With Object Constraint Language, Accepted by *The Sixth Asia Pacific Web Conference*, Hangzhou, China, April 14-17, 2004.
15. H. Wang, J. Cao, Y. Zhang, An Electronic Payment Scheme and Its RBAC management, *Concurrent Engineering: Research and Application Journal*, 2004.
16. H. Wang, L. Sun, Y. Zhang and J. Cao, Anonymous access scheme for electronic services, *Proceedings of the Twenty-Seventh Australasian Computer Science Conference (ACSC2004)*, Australian Computer Society, Vol. 26, pages: 296-305. Dunedin, New Zealand, 2004.
17. H. Wang, Y. Zhang, J. Cao, Y. Kambayahsi, A global ticket-based access scheme for mobile users, special issue on *Object-Oriented Client/Server Internet Environments*, *Information Systems Frontiers*, Vol. 5, No.6, 2003, Kluwer Academic Publisher.
18. H. Wang, J. Cao, Y. Zhang , A flexible payment scheme and its permission-role assignment, *Twenty-Sixth Australasian Computer Science Conference (ACSC2003)*, Adelaide, Australia.

19. H. Wang, J. Cao, Y. Zhang, Formal authorization approaches for permission-role assignment using relational algebra operations, the 14th Australasian Database Conference, Feb. 2-7, 2003, Adelaide, Australia.
20. H. Wang, J. Cao, Y. Zhang, A Flexible Payment Scheme and Its User-role Assignment, in book "Cooperative Internet Computing", Editor Alvin Chan, published by Kluwer Academic Publisher, Dec. 2002.
21. H. Wang, J. Cao, Y. Zhang, Formal Authorization Allocation Approaches for Role-Based Access Control Based on Relational Algebra Operations, 3rd International Conference on Web Information Systems Engineering (WISE'2002), Dec. 3-6, 2002, Singapore.
22. H. Wang, J. Cao, Y. Zhang, A Flexible Payment Scheme and Its Role-based User-role Assignment, Second International Workshop on Cooperative Internet Computing (CIC2002), August 18-19, 2002, Hong Kong.
23. J. Cao and Marian M. Orlowski, *On Performance of Cooperative Transactions in Multidatabase Systems*, Proceedings of the Sixteenth International Symposium on Computer and Information Sciences (ISCIS XVI), Turkey, 5-8 Nov,2001.
24. J. Hou, Y. Zhang, J. Cao, W. Lai and D. Ross, *Visual Support for Information Retrieval based on Linear Algebra*, Journal of Applied Systems Studies, Vol. 3, No.2, 2002, Cambridge International Science Publishing.
25. H.Wang, J.Cao and Y. Zhang *Ticket Based Service Access Scheme for Mobile Users*, Proceedings of Australasian Computer Science Conference 2002 (ACSC02), Pg. 285-292, Melbourne, Australia.
26. H.Wang, J.Cao, Y.Kambayashi, *Building Consumer Self-anonymity Scalable Payment Protocol for Internet Purchases*, Proceedings of 12th International Workshop on Research Issues on Data Engineering: Engineering E-Commerce/E-Business Systems (RIDE-2EC'2002), Pg159-168, San Jose, USA, Feb 24-25, 2002.
27. H.Wang, J.Cao, Y.Zhang, *A Consumer Anonymity Scalable Payment Scheme with Role Bases Access Control*, Proceedings of The Second International Conference on Web Information Systems Engineering (WISE 2001),Pg. 63-72, 3-6 December 2001, Kyoto, Japan.
28. C. Liu, X. Zhou, J. Cao and X. Lin, *On incremental Global Update Support in Cooperative Database Systems*, "Informatica, An International Journal of Computing and Informatics", Volume 24, Number 1, March, 2000, Pg. 27-31, ISBN 0350-5596.
29. J. Hou, Y. Zhang, J. Cao & W. Lai, *Visual Support for Text Information Retrieval Based on Matrix's Singular Value Decomposition*, Proceedings of The 1st International Conference on Web Information Systems Engineering (WISE2000), Hong Kong, 19-20 June 2000.

30. X. Zhou, X. Lin, C. Liu and J. Cao, *Spatial Query Processing Using Generalized Filter*, International Journal of Cooperative Information Systems Vol . 9, Nos. 1 & 2 (2000) 77-91. World Scientific Publishing Company.
31. C. Liu, X. Zhou, J. Cao and X. Lin, *Global Transaction management in A Cooperative Database System* Database, Web and Cooperative Systems, Vol. I, Proceedings of 1st international Symposium on Database, Web and Cooperative Systems (DWACOS'99), Baden-Baden, August, 1999.
32. X. Meng, S. Wang, X. Jia and J. Cao, *Natural Language Query Optimization and Translation in Chinese Database Systems*, Proceedings of 2nd International Symposium on Cooperative Database Systems for Advanced Applications (CODAS'99), Wollongong, March, 1999.
33. J. Cao and Marian M. Orlowski, *The effect of Semijoin Reduction on Query Processing In Distributed Database Systems*, Proceedings of The Twelfth International Symposium On Computer And Information Sciences (ISCIS), 1997, Antalya, Turkey.
34. Jinli Cao, *On Transaction Management in Multidatabase Systems*, PhD thesis, University of Southern Queensland, 1997.
35. Jinli Cao and Marian Orlowski, *On Transaction Recovery in a Multidatabase System*, Proceedings of InterSymp-96, the International Conference on System Research, Germany, 1996.
36. Jinli Cao and M. Orlowski, *Transactions Classification and a Concurrency Control Algorithm in a Multidatabase System*, Proceedings of 11th International Symposium on Computer and Information Systems (ISCIS-XI) 1996, Antalya, Turkey.
37. Jinli Cao and Marian W. Orlowski, *On Partial Order Processing for Dynamic Concurrency Control in Database System*, Proceedings of International Conference for Young Computer Scientists'95, pages 259-264, ISBN 7-301-02880-6, Peking University Press,1995.
38. Jinli Cao and Marian W. Orlowski, *On Dynamic Concurrency Control in a Multidatabase System*, Proceedings *Advances in Database and Expert Systems*, Volume 2, By Lasker, G.E.(ed.) Pages 11-15, ISBN 0921836333, 1995"
39. M. Orlowski and J. Cao, *On Optimization of Update Propagation in Multidatabase Systems*, Proceedings of IEEE International Conference of TENCON' 93.