Yi Lin

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RESEARCH INTERESTS	
	⋄ **D**atabase Replication, Transaction Concurrency Control
	⋄ **D**istributed Information Systems, Peer-to-Peer Data Management Systems
	⋄ **M**iddleware
	⋄ **G**roup Communication Systems
	⋄ **A**irflow Modelling and Simulation

EDUCATION

⋄ **McGill University**, Montreal, Canada
▷ Ph.D. in Computer Science   Jun 2007 (expected)   Advisor: Bettina Kemme
   Thesis: *Consistent Database Replication in Wide Area Networks (proposed)*
▷ M.Sc. in Computer Science   Sep. 2002   Advisor: Monty Newborn

⋄ **Concordia University**, Montreal, Canada
▷ Diploma in Computer Science   Aug. 2000
▷ M.Sc. in Building Science   Aug. 1999   Advisor: Fariborz Haghighat

⋄ **Tsinghua University**, Beijing, China
▷ B.Eng. in Automotive Engineering   July 1995

AWARDS

⋄ **McGill University**, Montreal, Canada
▷ Ph.D. Fellowship   Mar. 2004 - Dec. 2006
▷ Graduate Studies Fellowship   Sep. 2005 - Dec. 2005
▷ Alma Mater Student Travel Grant   Jul. 2005 - Oct. 2005

⋄ **Concordia University**, Montreal, Canada
▷ Tuition Scholarship for International Students   Sep. 1997 - Dec. 1998

RESEARCH AND RELATED EXPERIENCE

⋄ **Research Assistant**, Distributed Information Systems Lab, School of Computer Science, McGill University, 2003 - 2006, advisor: Bettina Kemme

▷ Investigated database replication in wide area networks for the purpose of scalability, performance and fault tolerance while maintaining strong data consistency

▷ Developed a middleware-based framework for database replication. It provoides transparent failover to clients and works with different DBMSs.

▷ Applied database replication to web services and multiplayer online games

▷ Published four refereed papers, one submitted, one in preparation

Yi Lin

◇ **Lab Coordinator**, Distributed Information Systems Lab, School of Computer Science, McGill University, 2004 - 2006, advisor: Bettina Kemme

   ▷ Maintained the hardware and software

   ▷ Administrated the lab

◇ **Researcher**, Department of Architecture, Massachusetts Institute of Technology, Nov 2001 - Feb 2002, advisor: Qingyan Chen

   ▷ Developed POMA Model, a numerical simulation model (simplified Computational Fluid Dynamics) for indoor airflow pattern and temperature distribution within a room.

   ▷ Applied Newton-Raphson to the model, implemented the model in Fortran 90

◇ **Software Developer**, Ericsson Canada Inc. Montreal, Canada, Jan 2001 - Jun 2001

◇ **Research Assistant**, Indoor Air Modelling Lab, Department of Building Science, Concordia University, 1997 - 1999, advisor: Fariborz Haghighat

   ▷ Conducted research about airflow modelling and simulation

   ▷ Published two journal papers and one conference paper

TEACHING EXPERIENCE

◇ **Lecturer**, School of Computer Science, McGill University

   ▷ **Comp208 Computer in Engineering,**   Fall 2005, Fall 2006, Winter 2007
   Taught concepts and structures of high level programming, non-numerical algorithms such as sorting and searching, and numerical algoritms such as root finding, numerical integration, etc.

◇ **Guest Lecturer**, School of Computer Science, McGill University

   ▷ **Comp421 Database Systems,**   Winter 2004
   Taught the topics on transaction and database recovery

   ▷ **Comp577 Distributed Database Systems,**   Fall 2004
   Taught the topics on group communication systems and peer-to-peer systems

   ▷ **Comp612 Distributed Data Management,**   Winter 2006
   Taught the topics on web caching and database replication

   ▷ **Comp764 Advanced Topics on Distributed Data Management,**   Winter 2005
   Taught the topics on peer-to-peer Systems

◇ **Teaching Assistant**, School of Computer Science, McGill University

   ▷ Assisted Prof. Kemme in comp421 Database Systems, comp577 Distributed Database Systems, and comp764 Advanced Topics on Distributed Data Management, McGill University, 2003 - 2005

   ▷ Assisted Dr. Vybihal in comp202 Introduction to Computing and comp302 Programming Languages and Paradigms, McGill University, 2002 - 2003

MENTORING EXPERIENCES

◇ **Master Student Mentor**, Distributed Information Systems Lab, School of Computer Science, McGill University, 2004 - 2006,

   ▷ Assisted Prof. Bettina Kemme in supervising three master students:

Xiaobo Zhan	Fault tolerant JDBC driver for middleware-based database replication	Sep 2004 - present
Chenliang Sun	Replication strategies for UDDI registries	Sep 2003 - May 2005
Yan Ding	Eager replication protocol for transactions with multiple operations	Sep 2004 - May 2005

REFEREED PUBLICATIONS	⋄ **Y. Lin**, B. Kemme, M. Patiño-Martínez, and R. Jiménez-Peris, "Middle-ware based Data Replication providing Snapshot Isolation", *ACM Special Interest Group on Management Of Data (SIGMOD), Baltimore, USA, 2005*
	⋄ **Y. Lin**, B. Kemme, M. Patiño-Martínez, and R. Jiménez-Peris, "Applying Database Replication to Multi-player Online Games", *The 5th Workshop on Networks and Systems supports for Games (Netgames), Singapore, 2006*
	⋄ **Y. Lin**, B. Kemme, M. Patiño-Martínez, and R. Jiménez-Peris, "Consistent Data Replication: Is it feasible in WANs?" *Euro-Par'05, Lisbon, Portugal, 2005*
	⋄ C. Sun, **Y. Lin**, B. Kemme, "Comparison of UDDI Registry Replication Strategies." *IEEE International Conference on Web Services (ICWS'04), San Diego, California, 2004*
	⋄ F. Haghighat, **Y. Lin**, A.C. Megri, "Development and validation of a zonal model – POMA", *Journal of Building and Environment, vol.36-9, 1039-1047, 2001*
	⋄ G. Zhang, **Y. Lin**, and F. Haghighat, "Comparison of Methodologies for Room Airflow Simulation and Study on a Kind of Zonal Model", *Journal of Basic Science and Engineering (In Chinese), volume 8 No.3, p291-300, 2000*
	⋄ **Y. Lin**, A.C. Megri and F. Haghighat, "Zonal Model, A New Generation of Combined Airflow and Thermal Model", *Proceeding of Indoor Air'99, Edinburgh, Scotland, 1999*
PAPERS IN PREPARATION	⋄ **Y. Lin**, B. Kemme, M. Patiño-Martínez, and R. Jiménez-Peris, "Moving Data to the Edge: A New Approach to Delivering Dynamic Content in Edge Computing", *submitted to the 16th International World Wide Web Conference (WWW 2007), paper ID: 509*
	⋄ **Y. Lin**, B. Kemme, M. Patiño-Martínez, and R. Jiménez-Peris, "Update Everywhere Database Replication with Snapshot Isolation and Data Integrity", *in preparation*
TALKS AND PRESENTATIONS	⋄ **One-Copy-Snapshot-Isolation for Database Replication in WANs**, *University of Waterloo, Waterloo, Canada, Dec 12, 2006*
	⋄ **Consistency and Performance of Database Replication in WANs**, *University of Toronto, Toronto, Canada, Dec 11, 2006*
	⋄ **Applying Database Replication to Multi-player Online Games**, *Netgames'06, Singapore, Oct 30, 2006*
	⋄ **Middle-ware based Data Replication providing Snapshot Isolation**, *SIGMOD'05, Baltimore, USA, July 30, 2005*
	⋄ **Consistent Data Replication: Is it feasible in WANs?** *Euro-Par'05, Lisbon, Portugal, Sep 5, 2005*
	⋄ **Database Replication with Group Communication in WANs**, *CanDB'04, Toronto, Canada, Oct 16, 2004*
MISCELLOUS	⋄ Citizenship: Canada
REFERENCES	⋄ Available upon request