

# Su CHEN

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## CONTACT INFORMATION

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## EDUCATION

- **National University of Singapore**—Singapore  
*Ph.D. Candidate, Computer Science, Jul 2005 - Present*
  - Dissertation Topic: “Query Processing in Moving Object Databases”
  - Advisor: Beng Chin, Ooi
  - CAP: 4.88/5.0
- **Fudan University**—Shanghai, P.R. China  
*Bachelor of Science (Honors), Computer Science and Technology, Sep 2001 - June 2005*
  - Dissertation: “XML Data Stream Filtering: The Design and Implementation”
  - Advisor: Aoying, Zhou
  - GPA: 3.58/4.0

## CURRENT RESEARCH

My Ph.D. research topic is ‘Query Processing in Moving Object Databases’. The development of moving object databases is greatly inspired by location-aware applications such as transportation management, taxi calling service, GPS car navigator and etc. The mobility of objects poses challenges on the database systems, such as frequent location updates, instant reaction on query requests as well as updates on the query results. The development of proper index structure and efficient query processing algorithms will help to improve the quality of such location-aware service.

## PUBLICATIONS

- Meihui Zhang, **Su Chen**, Christian S. Jensen, Zhenjie Zhang. ‘Effectively Indexing Uncertain Moving Objects for Predictive Queries’, In Proceedings of 35th International Conference on Very Large Data Bases (VLDB), Lyon, France, 2009 (accepted).
- **Su Chen**, Beng Chin Ooi, Kian-Lee Tan and Mario A. Nascimanto. ‘Self-Tunable Spatio-Temporal B<sup>+</sup>-tree Index for Moving Objects’. In Proceedings of 28th International Conference on Management of Data (SIGMOD), page 29-42, Vancouver, BC, Canada, 2008.
- **Su Chen**, Christian S. Jensen, Dan Lin. ‘A Benchmark for Evaluating Moving Object Indexes’, In Proceedings of 34th International Conference on Very Large Data Bases (VLDB), page 1574-1585, Auckland, New Zealand, 2008.
- Yueguo Chen, **Su Chen**, Yu Gu, Mei Hui, Feng Li, Chen Liu, Liangxu Liu, Beng Chin Ooi, Xiaoyan Yang, Dongxiang Zhang, and Yuan Zhou. ‘MarcoPolo: A Community System for Sharing and Integrating Travel Information on Maps’, accepted as a demo paper in 12th International Conference on Extending Database Technology (EDBT), Saint-Petersburg, Russia, 2009.

## EXPERIENCES & INTERNSHIP

- **AT&T Labs**—New Jersey, U.S.  
*Intern, Jul 2008 - Oct 2008*
  - Studied problem of data quality and data clean. Developed mechanisms and algorithms for preventing unintended updates on a database. Implemented a prototype for experimental usage.
- **National University of Singapore**  
*Graduate Student Researcher, Jul 2007 - Present*
  - Project: *SpADE: A SPatio-temporal Autonomic Database Engine for location-aware services* (<http://www.comp.nus.edu.sg/spade>, funded by A\*STAR, Singapore)  
Researched data structures and algorithms for indexing and querying moving objects. Participated in the implementation of the SpADE system.
  - Project: *Marcopolo: A Community System for Sharing and Integrating Travel Information on Maps* (<http://langg.com.cn/>) Set up a multi-user blog system based on “wordpress mu”.

Modified the blog system to support geo-tagging. Integrated the blog system into the Marcopolo system. Participated in the design of the UI module.

- **Fudan University** — Shanghai, China  
*Software Developer, Sep 2004 - Jul 2005*
  - Project: *An ETL Business Intelligence System* (funded by Shanghai Baoxin Software Co. Ltd., P.R. China)  
Designed and wrote stored procedures for extracting, transforming and loading data in PostgreSQL. Implemented interfaces (Java + ODBC/JDBC) for exchanging data between MS SQL Server, Microsoft Access, IBM DB2, Oracle, MySQL and PostgreSQL.

#### OTHER PERSONAL ACTIVITIES

- **National University of Singapore**—Singapore  
*Teaching Assistant, Jan 2008 - May 2008*
  - For the module of Distributed Database System. Responsible for mentoring students, designing and marking assessments.
- **National University of Singapore**—Singapore  
*Lab Instructor, Jan 2009 - Present*
  - For the module of Database Tuning. Responsible for tutoring students on using and tuning Oracle database.

#### COMPUTING SKILLS

- Operating Systems: Windows, Linux
- Programming: C/C++, Java, JavaScript, HTML, PHP
- Databases: MS SQL Server, MySQL, PostgreSQL, Oracle
- Tools: MS Visual Studio, Borland C++ Builder/JBuilder, GCC, Eclipse

#### HONORS AND AWARDS

- NUS Graduate Research Scholarship, National University of Singapore, 2005-present
- People's Scholarship, Fudan University, 2002, 2004, 2005
- Xu Zengshou Scholarship, Fudan University, 2003
- Freshmen Scholarship, Fudan University, 2001

#### GRADUATE LEVEL COURSES

- Databases and the Web
- Distributed Systems
- Parallel and Distributed Database Systems
- Database Administration and Performance Tuning
- Cryptographic Techniques and Data Security
- Theory and Practice of Multimedia
- Advanced Topics in Database Systems
- Database Security