

Lipyeow Lim

Résumé

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Education

- 2004 Ph.D., Computer Science, Duke University, NC, U.S.A.
- 2000 M.Sc., Information Systems and Computer Science, National University of Singapore, Singapore.
- 1999 B.Sc., Information Systems and Computer Science, National University of Singapore, Singapore.

Employment

- 2009–Present *Associate Professor of Information and Computer Science*
University of Hawai‘i at Mānoa, HI, U.S.A.
- 2009–2014 *Assistant Professor of Information and Computer Science*
University of Hawai‘i at Mānoa, HI, U.S.A.
- 2004–2009 *Research Staff Member. Business Informatics Department*
IBM T. J. Watson NY, U.S.A.

Areas of Expertise

- Information Management: data models and schemas, data integration, database architecture, data warehousing, performance optimization, XML industry standards, semantic technologies, parallel and distributed databases
- Business Process Management: optimization, monitoring and performance
- Software architecture: UML, Service Oriented Architecture, Software-as-a-service, Cloud Computing, Internet Technologies.

Selected Projects

Social Insurance MIS for Guangdong Province, China. (2012–present)

Worldbank Consultant. Worked with Guangdong Department of Human Resource and Social Insurance on the technical design of the integrated MIS for managing the social insurance services for the entire province. Assisted the Worldbank team on the technical aspects of project preparation, appraisal, and implementation.

Integrated Social Protection System for Malaysia. (2013)

Worldbank Consultant. Worked with the government of Malaysia on the design of an integrated master database of beneficiaries for social benefits targeting.

UCLA Medical Center Electronic Medical Records. (2006–2007)

IBM Consultant. Worked with UCLA’s director of architecture to develop an enterprise architecture for the transition of the four-hospital system to electronic medical records with minimal impact to caregivers’ business processes.

Merrill Lynch Derivative Trading System. (2005)

IBM Consultant. Merrill Lynch’s (then) booming derivative trading business outpaced its IT infrastructure. Business processes for derivative trading are significantly different from other financial products and require a rethinking of the underlying information management infrastructure.

Bank of America Data Mart Integration (2007)

IBM Consultant. The difference in schema of the data marts from about 200 lines of business created a data integration problem that resulted in inefficiencies and loss of productivity. A new enterprise architecture utilizing master data management techniques would address the problem but was deemed infeasible. A stop-gap schema integration framework was developed instead.

Streaming Analytics for Neonatal Intensive Care Unit. (2008–2009)

IBM Consultant to Principal Investigator (PI) from University of Ontario Institute of Technology. The project aims to monitor premature babies using streaming technology in order to detect critical conditions (eg. sepsis) 24 hours before onset. Advise PI on the design and implementation of the system architecture and the database architecture.

Database Adapters for IBM InfoSphere Streams. (2008–2009)

Research Scientist. Design, prototype and implement adapters for integrating InfoSphere Streams, IBM's stream computing middleware, with IBM database servers.

Index Compression Line Item in IBM DB2 LUW Cobra Release. (2007–2008)

Research Scientist. Design, prototype and benchmark index compression schemes for IBM's DB2 database product. The resultant compression schemes achieved a compression rate of 50% which exceeded the targeted rate of 40%.

IBM DB2XML Product Development. (2004–2006)

Lineitem owner of the XML runstats component in IBM DB2 v9.1 (Viper).

Selected Publications

1. *Optimizing Access Across Multiple Hierarchies in Data Warehouses*. Lipyeow Lim and B. Bhattacharjee. Hawaii International Conference on System Sciences 2011.
2. *Unifying Data and Domain Knowledge Using Virtual Views..* Lipyeow Lim, H. Wang, and M. Wang.. Very Large Databases. 2007.
3. *Real Time Business Performance Monitoring and Analysis Using Metric Network..* P. Huang, H. Lei and Lipyeow Lim.. IEEE International Conference on e-Business Engineering (ICEBE 2006).

Selected Patents

1. *Dynamic Maintenance of Web Indices Using Landmarks*. Lipyeow Lim, Min Wang, Sriram Padmanabhan, Ramesh Agarwal. Issued.
2. *Method, Apparatus and System for Business Performance Monitoring and Analysis Using Metric Network*. Hui Lei, Pu Huang and Lipyeow Lim. Issued.
3. *A method and system for XML statistics collection in DBMSs*. Min Wang, Lipyeow Lim and George Mihaila. Issued.

Personal

Citizen of Singapore. U.S. Permanent Resident.

Language ability on a scale of 1 (poor) to 5 (native-level): English (5), Mandarin (4), German (2), Cantonese (3) and the Teochew (3) dialect.