
CONTACT INFORMATION	<p>NEC Laboratories America 10080 N. Wolfe Rd. SW3-350 Cupertino, CA 95014</p>	<p>Office: +1-408-863-6005 E-mail: hjmoon@sv.nec-labs.com Homepage: http://www.nec-labs.com/~hjmoon</p>
RESEARCH INTERESTS	<p>Data management in the cloud, Database Management Systems, Schema Evolution Support, Data Integration, Temporal Data Management, XML Data Management</p>	
EDUCATION	<p>Ph.D. in Computer Science, UCLA Dissertation: Supporting Schema Evolution in Information Systems and Historical Databases Advisor: Prof. Carlo Zaniolo</p>	Dec 2008
	<p>M.S. in Computer Science, UCLA Major field: Information and data management</p>	Dec 2004
	<p>B.S. in Electrical Engineering and Computer Science, UC Berkeley Graduated with High Honors</p>	May 2002
EXPERIENCE	<p>Research Staff Member, <i>NEC Labs America</i>, Cupertino, CA Research Topic: Intelligent Cloud Database Coordinator</p>	Feb 2009-Present
	<p>Postdoctoral Scientist, <i>NEC Labs America</i>, Cupertino, CA Research Topic: Physical data independence for data management in the cloud</p>	Jan 2009
	<p>Graduate Student Researcher, <i>UCLA</i> Research Topic: Support for Schema Evolution in Database Management Systems Advisor: Prof. Carlo Zaniolo Analyzed schema evolution in a real-world information system, Wikipedia (ICEIS'08). Designed and implemented a workbench for graceful schema evolution, called <i>PRISM</i> (VLDB'08a, ICDE'09). Also, designed a system for managing and querying transaction-time databases with evolving schemas, which was implemented as <i>PRIMA</i> (VLDB'08b, SIGMOD'09), with optimizations for efficiency and scalability (SIGMOD'10).</p>	Jan 2004-Dec 2008
	<p>Summer Intern, <i>Teradata</i>, El Segundo, CA Supervisor: Pekka Kostamaa, Chief of Advanced Development and Enterprise Architecture Group Examined opportunities and benefits of native geospatial support in Teradata DBMS. Also, studied how garbage cleaning in the DB storage may improve data compression.</p>	Jun-Sep 2006
	<p>Summer Intern, <i>Teradata</i>, El Segundo, CA Supervisor: Pekka Kostamaa, Chief of Advanced Development and Enterprise Architecture Group Examined opportunities and benefits of native temporal support in Teradata DBMS. Also, studied and implemented an efficient database compression method based on a minimal sampling technique.</p>	Jun-Sep 2005
	<p>Summer Intern, <i>Teradata</i>, El Segundo, CA Supervisor: Pekka Kostamaa, Chief of Architect Group Performed relational data mining to analyze root causes of the bugs in Teradata DBMS. Also, implemented a text clustering tool, Scatter/Gather, for analysis of bug description texts.</p>	Jun-Sep 2004
	<p>Technology Advisor, <i>UCLA</i> Supervisor: Prof. Sung-ock Sohn Provided technical advice and assistance for technology aspects of the language course development,</p>	Jul 2003-Sep 2005

such as a use of web-based applications and digital multimedia applications.

Graduate Student Researcher, UCLA Oct 2002-Jul 2003

Research Topic: Real-time Image Processing on the Reconfigurable Embedded Systems

Advisor: Prof. Majid Sarrafzadeh

Implemented and analyzed real-time image processing algorithms on FPGAs, including image restoration and feature tracking. (ERSA'03, ESTIMedia'03, Supercomputing'04, JEC'05)

Undergraduate Student Researcher, UC Berkeley Summer 2001, Summer 2002

Research Topic: Optimizing Sparse Matrix Computation, IRAM Benchmarking

Advisor: Prof. Katherine Yelick, Prof. James Demmel

Designed and implemented memory hierarchy-aware optimization techniques to improve performance of sparse matrix computation (HPCC'05). Also conducted performance benchmarking for Berkeley IRAM, which integrates a processor and DRAM on a single chip.

TEACHING
EXPERIENCE

Teaching Assistant, UCLA Jan-Mar 2008

Course: CS144 Web Applications

Instructor: Prof. Junghoo Cho

Held weekly discussion sessions and office hours, administered student projects on i) XML-relational data transformation, ii) building an IR web service, and iii) building a web site using Java Servlet, JSP, JavaScript, AJAX, Google Suggest, and Google Map; graded projects and exams.

Teaching Assistant, UCLA Sep-Dec 2004, Sep-Dec 2006

Course: CS143 Introduction to Database Systems

Instructor: Prof. Carlo Zaniolo

Held weekly discussion sessions and office hours, designed the course project, "Database and the Web"; graded projects and exams.

Student Supervision, UCLA Jul 2008-Dec 2008

Supervising Narendra Gayam, a master student, for his master thesis project on temporal aggregates.

Student Supervision, UCLA Jul-Sep 2008

Supervised Meng Song, a visiting undergraduate student from Nankai University in China, on implementation of HMM (Historical Metadata Manager).

Student Supervision, UCLA Apr-Jun 2006

Course: CS199 Directed Research in Computer Science

Instructor: Prof. Carlo Zaniolo

Supervised Robin Chandra, an undergraduate student on implementing XyChronicler, an XML archiving system based on XyDiff.

Student Supervision, UCLA Jan-Mar 2005

Course: CS199 Directed Research in Computer Science

Instructor: Prof. Carlo Zaniolo

Supervised two undergraduate students on designing and implementing the web interface for ArchIS (Archival Information System).

PROFESSIONAL
ACTIVITIES

Conference Program Committee

21st International Conference on Database and Expert Systems Applications (DEXA 2010)

12th International Asia-Pacific Web Conference (APWeb 2010)

20th International Conference on Database and Expert Systems Applications (DEXA 2009)

Conference External Reviewer

SIGMOD 2005-2007, 2010, VLDB 2005-2008, ICDE 2010, EDBT 2010, KDD 2006-2007, WWW 2007

HONORS AND AWARDS

Byung Chul Kim and Moon Hee Kim Scholarship. 2007
UCLA Korean American Alumni Scholarship. 2006
Korean American Scholarship Foundation. 2005
Oriental Mission Church Scholarship. 2003
Kimbo Scholarship. 2001
AMATYC Student Mathematics League: Ranked 4th in the US and awarded Charles Miller Memorial Scholarship. 1999

CITIZENSHIP

U.S. Citizen

PUBLICATIONS

1. **Hyun J. Moon**, Carlo A. Curino, Carlo Zaniolo. Architecture and Optimization for Transaction-time DBs with Evolving Schemas. *SIGMOD 2010*. Accepted for Publication.
2. Carlo Curino, **Hyun J. Moon**, Carlo Zaniolo. Automating Database Schema Evolution in Informatino System Upgrades. Second ACM Workshop on Hot Topics in Software Upgrades (HotSWUp) 2009. Held in conunction with OOPSLA 2009. (Invited paper)
3. **Hyun J. Moon**, Carlo A. Curino, Myungwon Ham, Carlo Zaniolo, PRIMA: Archiving and Querying Historical Data with Evolving Schemas. *SIGMOD 2009*. (Demo paper)
4. Carlo A. Curino, **Hyun J. Moon**, Myungwon Ham, Carlo Zaniolo. The PRISM Workbench: Database Schema Evolution Without Tears. *ICDE 2009*. (Demo paper)
5. Jong Hoon Ahn, Uichin Lee, **Hyun Jin Moon**, Mario Gerla, Senster: Scalable Smartphone Based Vehicular Sensor Networking Systems. *HotMobile 2009*. (poster)
6. Carlo A. Curino, **Hyun J. Moon**, Carlo Zaniolo. Managing the History of Metadata in support for DB Archiving and Schema Evolution. *International Workshop on Evolution and Change in Data Management (ECDM)*, 2008.
7. **Hyun J. Moon**, Carlo A. Curino, Carlo Zaniolo. Managing and Querying Transaction-time Databases under Schema Evolution. *Proc. of VLDB*, 2008.
8. Carlo A. Curino, **Hyun J. Moon**, Carlo Zaniolo. Graceful Database Schema Evolution: the PRISM Workbench. *Proc. of VLDB*, 2008.
9. Carlo A. Curino, **Hyun J. Moon**, Letizia Tanca, Carlo Zaniolo. Schema Evolution in Wikipedia: toward a Web Information System Benchmark. *International Conference on Enterprise Information Systems (ICEIS)*, 2008.
10. Fusheng Wang, Carlo Zaniolo, Xin Zhou, **Hyun J. Moon**. Version Management and Historical Queries in Digital Libraries. *International Symposium on Temporal Representation and Reasoning (TIME)*, 2005. (Short paper)
11. Fusheng Wang, Carlo Zaniolo, Xin Zhou, **Hyun J. Moon**. Managing Multi-Version Documents Historical Databases: a Unified Solution Based on XML. *WebDB 2005*. (Demo paper)
12. Richard W. Vuduc, **Hyun-Jin Moon**. Fast Sparse Matrix-Vector Multiplication by Exploiting Variable Block Structure. *International Conference on High Performance Computing and Communications (HPCC)*, 2005.
13. Soheil Ghiasi, Ani Nahapetian, **Hyun J. Moon**, Majid Sarrafzadeh. Reconfiguration in Network of Embedded Systems: Challenges and Adaptive Tracking Case Study. *Journal of Embedded Computing (JEC)*, Vol. 1, No. 1, pp. 147-166, 2005.
14. Soheil Ghiasi, **Hyun J. Moon**, Ani Nahapetian, Majid Sarrafzadeh. Collaborative and Reconfigurable Object Tracking. *Kluwer Journal of Supercomputing*, Vol. 30, No. 3, pp. 213-238, 2004.

15. Soheil Ghiasi, **Hyun J. Moon**, Majid Sarrafzadeh. Improving Performance and Quality thru Hardware Reconfiguration: Potentials and Adaptive Object Tracking Case Study. *Workshop on Embedded Systems for Real-Time Multimedia (ESTIMedia)*, 2003.
16. Soheil Ghiasi, **Hyun J. Moon**, Majid Sarrafzadeh. Collaborative and Reconfigurable Object Tracking. *International Conference on Engineering of Reconfigurable Systems and Algorithms (ERSA)*, 2003. (Invited paper)

REFERENCES

Available upon request