# **Max Haifei Li, Ph.D.**

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### EXPERIENCE

**Associate Professor with Tenure**, Department of Computer Science, Union University

August 2009 to present

* Faculty Sponsor for Union University ACM Student Chapter (Group ID 46418) since 2007.
* Attended MIT Online X program on “Tackling the Challenges of Big Data” with 98% final grade on December 2014.
* Taught a Software Engineering SPOC (Small Private Online Course) based on a MOOC (Massive Open Online Course) offered by Professor Armando Fox at UC Berkeley EECS.
* Passed CompTIA A+ certification on January 2013.
* Worked with Professor Joel Owen of Pharmaceutics for a research project on pharmacokinetics.
* Coordinator for Union University’s computer repair and maintenance project.

**Assistant Professor**, Department of Computer Science, Union University

August 2004 to July 2009

* Pew Summer Research Grant for summer 2009. The title of the grant is “A PHP-based Web Frontend for a Molecular Dynamic Computational Software Package.”
* Reviewer, IEEE Transactions on Services Computing.
* Editorial Review Board, International Journal of Web Services Research.
* Editorial Advisory Board, Advances in Web Services Research (AWSR) Book Series.
* Four projects with students:
  + “UULinux: Creation of a Custom Linux for the Purpose of Student Learning” with Toyin Adedire Adedokun.
  + “Creation of an Online Pronunciation Dictionary Using Open Source Software” with David Moses.
  + “A Study of Computer Ethics Course Offered by Computer Science Departments in American Universities” with Robert Jacks.
  + “A Database Management System for Tracking the Usage of the Recreation Facility” with Wayne Campbell.
* Faculty Sponsor for Union University ACM Student Chapter (Group ID 46418) since 2007.
* Certified MySQL 5.0 Developer.
* Collaborative research with Chemistry Professor Michael Salazar on Molecular Dynamics Simulation.
* Publicity chair for IEEE CEC 2005 held in Munich, Germany.
* Program Committee member for IEEE EEE 2005 held in Hong Kong.
* Program Committee member for the International Workshop on Business Process Monitoring & Performance Management (BPMPM 2005) held in Copenhagen, Denmark.
* Reviewer for WISE 2005 (6th International Conference on Web Information Systems Engineering November 20-22 2005, New York City, New York)
* Teach Courses in Database Management Systems (CSC 321), Programming Languages (CSC 455), Computer Ethics (CSC 235) and Survey of Microcomputing Applications (CSC 105).
* Published a paper at the 4th International Conference on Web-based Learning (ICWL 2005), July 31 – August 3, 2005, Hong Kong, China.
* Presented a paper at SCC 2005, July 11-15, 2005, Orlando, Florida.
* Presented a paper at 2004 Conference of the Mid-Southeast Chapter of the ACM, November 11 to 12, Gatlinburg, TN.

**Assistant Professor**, Department of Computer Science, Nyack College, Nyack, NY

August 2003 to August 2004

* MBA-level CIS (Computer Information Systems) specialty courses: BSG613: Database and Knowledge Management Systems and BSG614: Business Systems Analysis and Design.
* Courses in Computer Science (CSC 112 Introduction to Programming, CSC340 Web Programming and Design, CSC 201 Programming II, CSC 311 Database Concepts, CSC 312 Data Structures and Algorithms) for both the Rockland Campus and the Manhattan Campus of Nyack College.
* Research on security and privacy negotiation, business negotiation and e-business.
* Faculty Advisor for the Nyack College ACM Student Chapter.
* Member of International Editorial Board of the International Journal of Web Services Research.
* Publicity Chair of ICWS 2004.
* Guest Editor, ACM Multimedia Systems, special issue on multimedia software engineering, Vol. 9, Number 5, March 2004.

**Post-doctoral Researcher,** Department of E-Business Solutions and Autonomic Computing, IBM Thomas J. Watson Research Center, Yorktown Heights, NY

September 2001 to August 2003

* Participated in the BE4WS (Business Explorer for Web Services) project. BE4WS is a web-based tool to query UDDI (Universal Description, Discovery and Integration) repositories. It can aggregate query results returned from multiple UDDI repositories and eliminate redundant information. Our research result has been published in IBM Alphaworks (http://www.alphaworks.ibm.com/tech/be4ws) and has been incorporated into WSTK (Web Services Toolkit) 3.1, IBM’s popular and free development toolkit for web services.
* Worked on the issue of tooling and configuration for BPSM (Business Process Solution Management). Our research on BPSM project will be aligned with IBM’s strategy on BAM (Business Activity Monitoring). BPSM is a project involving different IBM departments.
* Designed BPCL (Business Process Commitment Language) for BPSM. BPCL allows business analysts to conveniently define external commitments (among trading partners) and internal commitments (among internal departments) in an XML Schema-based language. BPCL is a part of the BPSM project.
* Participated in the development of two pilots: Nekema and IBM MD (Microelectronics Division) SAR (Sense And Respond).
* Guest editor for a special issue of ACM/Springer Multimedia Systems.
* Associate editor of SIGecom Exchanges, newsletter for the ACM Special Interest Group on Electronic Commerce.
* Session chair of ICWS 2003 (International Conference on Web Services).
* Web chair and reviewer for WECWIS (Workshop on Advanced Issues of E-Commerce and Web-Based Information Systems) 2002.
* Co-web chair of MSE 2002 (International Symposium on Multimedia Software Engineering).
* Program committee member of SAINT (International Symposium on Applications and the Internet) 2003.
* Reviewer of Electronic Commerce Research Journal.
* Reviewer of Hawaii International Conference On System Sciences, 2003 (HICSS-36).
* Board member of internal newsletter of the department of E-Business Solutions and Autonomic Computing, IBM Thomas J. Watson Research Center.

**Graduate Research Assistant**, Database Systems Research and Development Center, University of Florida, Gainesville, FL

August 1996 to August 2001

Participated in EECOMS (Extended Enterprise Coalition for Integrated Collaborative Manufacturing Systems, www.ciimplex.org), a NIST funded, multi-million dollar, multi-university, multi-industrial company project managed by CIIMPLEX consortium and led by IBM. The following are accomplishments in detail.

* Proposed a negotiation decision model to incorporate concepts such as negotiation contexts, negotiation policies and negotiation strategies.
* Designed rules to represent negotiation policy, strategy and decision/action plan.
* Extended the EECOMS negotiation server to include more decision/action rules.
* Extended the existing negotiation life cycle to include a “post-negotiation analysis” phase and a feedback loop.
* Designed and implemented negotiation messages based on XML BODs (Business Object Document) for business negotiation.

Participated in CIIMPLEX (Consortium for Integrated Intelligent Manufacturing Planning and Execution, www.ciimplex.org), a NIST funded, multi-million dollar, multi-university, multi-industrial company project led by IBM. The following are accomplishments in detail.

* Designed and implemented EXPRESS+ to model BOD for application integration.
* Modeled conceptual BODs using XGTOOLS.
* Implemented the data loading program from XGTOOLS to the Metadata Manager.
* Implemented the validation facility of BOD using ECAA (Event, Condition, Action, and Alternative action) rules.

Participated in NIIIP (National Industrial Information Infrastructure Protocols, www.niiip.org), a DARPA funded, multi-million dollar, multi-university, multi-industrial company project. Took part in the late stage of the project.

* Integrated K runtime (code generated by the K compiler) with the Query Process Engine (QPE) of OSAM\*.KBMS, a part of the NIIIP project.
* Studied the feasibility of replacing the underlying storage manager EXODUS of the KBMS with ODBC and a relational database management system.

**System Engineer**, Technical Department, China Resources Info Tech (Ingres China) Beijing, China

March 1994 to August 1996

* Developed prototype systems for customers’ projects with Ingres. Projects are from different fields such as petroleum exploration, air traffic control, electrical energy research, and TV broadcasting.
* Supported Ingres customers.
* Taught CA-Openlngres and CA-OpenROAD courses.
* Was consulted on the object management features of CA-OpenIngres.

**Software Engineer**, Software Development Center of Geophysical Research Institute (GRI), Zhuozhou, China

March 1992 to March 1994

* Attended the user requirements discussion for GRIstation project, and drafted some project documents (Data Dictionary Entries, etc).
* Participated in the OO design of GRIstation project in Plano, Texas from November 1992 to February 1993. Used OSD tools (Booch OO Methodology) for the design of the seismic interpretation part of the project. Defined most of the C++ classes related to seismic interpretation. Attended the ObjectStore training class.
* Designed and implemented the C++ classes related to the storage of geologic data after returning from the US.
* Instructed software professionals in the Software Development Center about how to use ObjectStore. Did most of the maintenance work for ObjectStore.
* Received intensive training on courses: UNIX and C, X window system, Motif GUI, Advanced Data Structures, Computer Graphics, C++ Programming Language and OO Design.

**Software Engineer**, Software Research Institute of GRI, Zhuozhou, China

July 1990 to March 1992

* Studied GRISYS/90 seismic data processing system, an award winning system.
* Independently designed and implemented a GRISYS/90 seismic data processing module called KFAMSA (K – F domain Amplitude Spectra Analysis).
* Received intensive training on petroleum exploration technique, a prerequisite for petroleum software development.

### EDUCATION

**Doctor of Philosophy**, 2001, Department of Computer and Information Science and Engineering, University of Florida, Gainesville, FL

Ph.D. dissertation: “Automated E-business Negotiation: Model, Life Cycle and System Architecture”

**Master of Science**, 1998, Department of Electrical and Computer Engineering, University of Florida, Gainesville, FL

M.S. thesis: “Modeling and Validation of Business Object Documents for Application System

Integration”

**Bachelor of Engineering**, 1990, Department of Computer Science and Engineering, Xi’an Jiaotong University, Xi’an, China

### PROFESSIONAL ACTIVITIES AND HONOURS

* Senior Member of IEEE since 2004.
* Member of ACM.
* Reviewer for Omega: the International Journal of Management Science, 2005
* Member of international editorial review board, International Journal of E-Business Research, 2005.
* Certificate of Appreciation from IEEE Computer Society “For Web Chair for IEEE Fifth International Symposium on Multimedia Software Engineering, Newport Beach (MSE 2003).”
* Achievement Award by the World Academy of Science in Recognition and Appreciation of Research Contributions to the Field and to the 2003 International MultiConference in Computer Science and Computer Engineering.
* Member of International Editorial Board of the International Journal of Web Services Research.
* Certificate of Appreciation from IEEE Computer Society “For Web Chair for IEEE Fourth International Symposium on Multimedia Software Engineering, Newport Beach (MSE 2002).”
* Session chair of ICWS 2003 (International Conference on Web Services).
* Associate editor and reviewer of ACM SIGecomm Exchanges.
* Guest editor for a special issue of ACM/Springer Multimedia Systems.
* Web Chair and reviewer of WECWIS (the 4th International Workshop on Advanced Issues of E-Commerce and Web-based Information Systems) 2002.
* Co-web Chair of MSE 2002.
* Program Committee member of SAINT (International Symposium on Applications and the Internet) 2003.
* Reviewer of IEEE Transactions on Mobile Computing.
* Reviewer of Electronic Commerce Research Journal.
* Reviewer of Hawaii International Conference On System Sciences, 2003 (HICSS-36).
* Reviewer of Group Decision and Negotiation.
* Reviewer of Distributed and Parallel Databases: an International Journal.
* Reviewer of International Journal of Cooperative Information Systems.
* Founding Member of IEEE TFEC (IEEE Task Force on Electronic Commerce).
* Attended EECOMS Technical Review & Direction (TR&D) meeting in 1999.
* Attended CIIMPLEX TR&D meeting in 1998.
* Attended the national conference on the application of database in graph, image and multimedia in 1995 on behalf of Ingres China.
* Invited by the Department of Computer Science and Engineering of Nanjing University to give a seminar about ObjectStore in 1994.
* Awarded the University Scholarship of Xi'an Jiaotong University.
* LIST OF PUBLICATIONS

34. Weizhan Zhang, Qinghua Zheng, Haifei Li, Feng Tian, An overlay multicast protocol for live streaming and delay-guaranteed interactive media, Journal of Network and Computer Applications, Vol. 35, Issue 1, pp. 20-28, January, 2012

33. Max Haifei Li, Adopting Open Source Software: Reasons and Best Practices, Liquid Lemur Magazine, Vol. 1, Issue 1, pp. 12-13, Oct-Dec 2011

32. Ruoyu Yan, Qinghua Zheng, Haifei Li, Combining Adaptive Filtering and IF Flows to Detect DDoS Attacks within a Router, KSII Transactions on Internet and Information Systems, Vol. 4, Issue 3, pp. 428-451, 2010.

31. Bo Dong, Qinghua Zheng, Jie Yang, Haifei Li, Mu Qiao, " An E-learning Ecosystem Based on Cloud Computing Infrastructure", Proceedings of the 9th IEEE International Conference on Advanced Learning Technologies (ICALT 2009), pp. 125-127.July 15-17, 2009 Riga, Latvia.

30. Bo Dong, Qinghua Zheng, Lingzhi Xu, Haifei Li, Jie Yang, Mu Qiao, " Jampots: a Mashup System towards an E-Learning Ecosystem", Fifth International Joint Conference on INC, IMS and IDC, August 25-27, 2009, Seoul, South Korea.

29. Qinghua Zheng, Xiyuan Wu, Haifei Li, "A Rough Set Based Approach to Find Learners' Key Personality Attributes in an E-Learning Environment," International Journal of Web-Based Learning and Teaching Technologies, Vol. 3, Issue 4 pp. 29-56, 2008.

28. Qinghua Zheng, Xiyuan Wu, Haifei Li, “A Rough Set Based Approach to Find Learners' Key Personality Attributes in an E-Learning Environment,” International Journal of Web-Based Learning and Teaching Technologies, Vol. 3, Issue 4 pp. 29-56, 2008.

27. Xiyuan Wu, Qinghua Zheng, Haifei Li, and Guangdong Liu, “A Method to Find Learner’s Key Characteristic in Wed-Based Learning”, the 7th International Conference on Web-based Learning, August 20-22, 2008, Zhejiang Normal University, Jinhua, Zhejiang, China.

26. Haifei Li, Patrick C. K. Hung, Jia Zhang, and David Ahn, “Privacy Issues of Applying RFID in Retail Industry”, International Journal of Cases on Electronic Commerce, Volume 2, No. 3., pp. 33-52, 2006.

25. Haifei Li, Stanley Y. W. Su and Herman Lam, “On Automated e-Business Negotiations: Goal, Policy, Strategy, and Plans of Decision and Action”, Journal of Organizational Computing and Electronic Commerce, Volume 13, Issue 1, pp. 1–29, 2006.

24. Jun-Jang Jeng, Henry Chang, Jen-Yao Chung, Markus Ettl, Steve Buckley and Haifei Li, “COSAR: commitment-oriented “sense and respond” system for microelectronic manufacturing,” International Journal of Advanced Manufacturing Technology, Vol. 27, Numbers 9-10, pp. 999-1010, February 2006.

23. Jin Du, Qinghua Zheng, Haifei Li, and Wenbin Yuan, “The Research of Mining Association Rules Between Personality and Behavior of Learner Under Web-Based Learning Environment” the 4th International Conference on Web-based Learning (ICWL 2005), July 31 – August 3, 2005, Hong Kong, China.

22. Haifei Li, Patrick Hung, Jia Zhang, and David Ahn, “Designing Privacy Policies for Adopting RFID in the Retail Industry,” SCC 2005, 2005 IEEE International Conference on Services Computing, July 11-15, 2005, Orlando, Florida.

21. Liang-Jie Zhang, Haifei Li and Herman Lam, “Toward a Business Process Grid for Utility Computing,” IT Professional, September/October, 2004 (Vol. 6, No. 5).

20. Liang-Jie Zhang, Haifei Li and Herman Lam, “Services Computing: Grid Applications for Today,” IT Professional, July/August, 2004 (Vol. 6, No. 4).

19. Haifei Li, David Ahn and Patrick C. K. Hung, "Algorithms for Automated Negotiations and Their Applications in Information Privacy," IEEE Conference on E-Commerce (CEC04), San Diego, California, USA, July 6-9, 2004.

18. Patrick C. K. Hung, Haifei Li, and Jun-Jang Jeng, “WS-Negotiation: An Overview of Research Issues,” the 37th Hawaii International Conference on System Sciences (HICSS–37 2004), Big Island, Hawaii, 05–08 January, 2004.

17. Qianhui Liang, Stanley Y.W. Su, Haifei Li and Jen-Yao Chung, “A United Approach to Discover Multimedia Web Services,” Fifth International Symposium on Multimedia Software Engineering (MSE 2003), Taichung, Taiwan, Dec 10-12, 2003.

16. Patrick C. K. Hung and Haifei Li, “Web Services Discovery Based on the Trade-off between Quality and Cost of Service: A Token-based Approach,” ACM SIGecom Exchanges, Vol. 4, No. 2, August 2003.

15. Haifei Li, Jun-Jang Jeng and Jen-Yao Chung, “Commitment-Based Approach to Categorizing, Organizing and Executing Negotiation Processes” IEEE Conference on E-Commerce, Newport Beach, California, June 24-27, 2003.

14. Haifei Li, Jun-Jang Jeng and Frederick Wu, “An Approach of Modeling, Monitoring and Managing Business Operations for Just-In-Time Manufacturing”, the seventh World Multiconference on Systemics, Cybernetics and Informatics (SCI 2003), Orlando, Florida. July 27 – 30, 2003.

13. Haifei Li, Chunbo Huang, Stanley Y.W. Su, and Benny Higdon, “Design and Implementation Of Business Objects for Automated Business Negotiations,” Group Decision and Negotiation, Vol. 11, No. 1 pp. 23-44, 2002.

12. Haifei Li, Jun-jang Jeng, and Henry Chang, “Business Commitments for Dynamic E-business Solution Management: Concept and Specification”, 6th World Multi Conference on Systemics, Cybernetics and Informatics (SCI), Orlando, Florida, 2002.

11. Liang-Jie Zhang, Haifei Li, Henry Chang, Tian Chao, “XML-based Advanced UDDI Search Mechanism for B2B Integration,” 4th International Workshop on Advanced Issues of E-Commerce and Web-based Information Systems (WECWIS), 2002.

10. Haifei Li, “A New Category of Business Negotiation Primitives for Bilateral Negotiation Agents and Associated Algorithm to Find Pareto Optimal Solutions,” 4th International Workshop on Advanced Issues of E-Commerce and Web-based Information Systems (WECWIS), Newport Beach, California, 2002.

9. Haifei Li, Jun-jang Jeng, and Henry Chang, “Managing Business Relationships in E-Services Using Business Commitments,” third VLDB Workshop on Technologies for E-Services (TES’02), Hong Kong, 2002.

8. Jun-Jang Jeng, Steve Buckley, Henry Chang, Jen-Yao Chung, Shubir Kapoor, John Kearney, Haifei Li, and Josef Schiefer, “BPSM: An Adaptive Platform for Managing Business Process Solutions,” the Fifth International Conference on Electronic Commerce Research (ICECR5), Montreal, Canada, 2002.

### 7. Haifei Li and Stanley Y. W. Su, “Business Object Modeling, Validation, and Mediation for Integrating Heterogeneous Application Systems,” Journal of Systems Integration, Vol. 10, No. 4, pp. 307-328, 2001.

### 6. Stanley Y. W. Su, Chunbo Huang, Joachim Hammer, Yihua Huang, Haifei Li, Liu Wang, Youzhong Liu, Charnyote Pluempitiwiriyawej, Minsoo Lee and Herman Lam, “An Internet-Based Negotiation Server For E-Commerce,” the VLDB Journal, Vol. 10, No. 1, pp. 72-90, 2001.

### 5. Joachim Hammer, Chunbo Huang, Yihua Huang, Charnyote Pluempitiwiriyawej, Minsoo Lee, Haifei Li, Liu Wang, Youzhong Liu, and Stanley Y. W. Su, “The IDEAL Approach to Internet-Based Negotiation for E-Business,” in Proceedings of the Sixteenth International Conference on Data Engineering, San Diego, California, 2000.

### 4. Haifei Li, “XML and Industrial Standards for Electronic Commerce,” Knowledge and Information Systems, Vol. 2, No. 4, pp. 487-497, 2000.

### 3. Haifei Li, “Efficient Algorithms to Detect Pricing Inconsistency for Customizable Products,” Netnomics, Vol. 2, No. 1, pp. 49-56, 2000.

### 2. Haifei Li, “Store Well-logging Data with ObjectStore ODBMS,” Computers & Geosciences, Vol. 21, No. 10, pp. 1121-1129, 1995.

### 1. Haifei Li, “An Introduction to ObjectStore,” Transaction on Oil Geophysical Prospecting, Vol. 11, No. 4, pp. 358-362, 1993. (in Chinese).

### PRESENTATIONS

* “What I have learned at IBM Research”, Department Colloquium, Department of Computer Science, Union University, October 30, 2007.
* “Open Source Movement”, Departmental colloquium, Department of Computer Science, Union University, March 28, 2006.
* “Enforcing Privacy Policies for RFID Data Collection and Processing” Conference of the Mid-Southeast Chapter of the ACM, Gatlinburg, TN, November 11 to 12, 2004.
* “Business Process Commitment Language for the Solution Management,” IBM Worldwide Business Process Integration Conference, Armonk, NY, May 2002.
* “BPI Solution for Configure-to-Order Supply Chain Integration and Management,” IBM Worldwide Business Process Integration Conference, Armonk, NY, May 2002. (co-author)
* “Commitment-Governed Coordination: An Adaptive Mechanism for Business Process Solution Management,” IBM Worldwide Business Process Integration Conference, Armonk, NY, May 2002. (co-author)
* “Business Process Solution Management,” e-Commerce Lunchtime Seminar, IBM Thomas J. Watson Research Center, Yorktown Heights, NY, July 2002. (co-speaker)
* “Automation of Business Negotiation: Model and Architecture,” The First Annual Emerging Information Technology Conference (EITC) - Innovation and Entrepreneurship, Newark, NJ, November 2001.