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Education

Kansas State University, **Ph.D.**, Computer Science, June 1991.

Brigham Young University, **M.S.**, Computer Science, December 1984.

Brigham Young University, **B.S.**, Computer Science, August 1982.

Professional Positions

- Brigham Young University, Associate Professor of Computer Science, September 1997 - Present.
- Brigham Young University, Assistant Professor of Computer Science, September 1991 - August 1997.

Publications

- Journals
  1. Yiu-Kai Ng, "Read to Grow: Exploring Metadata of Books to Make Intriguing Book Recommendations for Teenage Readers", *Knowledge and Information Systems, An International Journal (KAIS)*, Volume 65, Issue 11, pp. 4537-4562, Springer, November 2023.
  2. Sophie Gao and Yiu-Kai Ng, "Generating Extractive Sentiment Summaries for Natural Language User Queries on Products". *Journal of ACM Applied Computing Review (ACR)*, Volume 22, Issue 2, pp. 5-20, ACM, June 2022.
  3. Yiu-Kai Ng, "CBRec: A Book Recommendation System for Children Using the Matrix Factorization and Content-Based Filtering Approaches". *International Journal of Business Intelligence and Data Mining (IJBIDM)*, Volume 16, Number 2, pp. 129-149, InderScience, 2020.
  4. Joseph Bills and Yiu-Kai Ng, "Recommending Therapeutic Games Targeted to the Individual Needs of Adults with Autism Spectrum Disorder". *International Journal on Computer Sciences and Information Systems (IJCSIS)*, Volume 14, Number 1, pp. 53-69, IADIS Press, December 2019.
  5. Maria Soledad Pera and Yiu-Kai Ng, "Recommending Books to be Exchanged Online in the Absence of Wish Lists". *Journal of the Association for Information Science and Technology (JASIST)*, Volume 69, Issue 4, pp. 541-552, Wiley, 2018.

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7. Yiu-Kai Ng, "MovReC: A Personalized Movie Recommendation System for Children Based on Online Movie Features". *International Journal of Web Intelligence Systems (IJWIS)*, Volume 13, Number 4, pp. 445-470, Emerald, 2017.

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9. Rani Qumsiyeh and Yiu-Kai Ng, "Enhancing Web Search Using Query-Based Clusters and Multi-Document Summaries". *Journal of Knowledge and Information Systems (KAIS)*, Vol. 47, Issue 2, pp. 355-380, Springer, 2016.

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13. Maria Soledad Pera and Yiu-Kai Ng, "A Group Recommender for Movies Based on Content Similarity and Popularity." *Journal of Information Processing & Management (IPM)*, Vol. 49, Issue 3, pp. 673-687, Elsevier, May 2013.

14. Maria Soledad Pera, Rani Qumsiyeh, and Yiu-Kai Ng, "Web-Based Closed-Domain Data Extraction on Online Advertisements." *Journal of Information Systems*, Vol. 38, Issue 2, pp. 183-197, Elsevier, April 2013.

15. Maria Soledad Pera and Yiu-Kai Ng, "Using Maximal Spanning Trees and Word Similarity to Generate Hierarchical Clusters of Non-Redundant RSS News Articles." In *Journal of Intelligent Information Systems (JIIS)*, Vol. 39, No. 2, pp. 513-534, Springer, October 2012.

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- Book Chapters

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2. Yiu-Kai Ng, "Movie Recommendation Based on a Recurrent Neural Network Model". In *Reuse in Intelligent Systems*, pp. 87-115, CRC Press, July 2020.

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- Workshop Proceedings

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- Conference Proceedings

1. Siqi Gao and Yiu-Kai Ng, "Recommending Answers to Math Questions Based on KL-Divergence and Approximate XML Tree Matching", to appear in *Proceedings of the 2023 ACM SIGIR Conference on Research and Development in Information Retrieval within the Asia-Pacific Region (SIGIR-AP)*, November 26-29, 2023, Beijing, China.

2. Yiu-Kai Ng, "Easy to Find: A Natural Language Query Processing System on Advertisements Using an Automatically Populated Database", In *Proceedings of the* 19^{th} *International Conference on Web Information Systems and Technologies (WEBIST)*, pp. 71-83, November 15-17, 2023, Rome, Italy, 2023.

3. Yiu-Kai Ng, " Personalized Book Recommender System for Adults Based on Deep Learning and Filtering", in *Proceedings of the* 15^{th} *International Conference on Knowledge Discovery and Information Retrieval (KDIR)*, IC3K, pp. 248-256, November 13 - 15, 2023, Rome, Italy, 2023.

4. Matthew Moulton, Sophie Gao, and Yiu-Kai Ng, "Retrieving and Ranking Relevant Products from Boolean Natural Language Queries". In *Proceedings of the* 21^{st} *International Conference on Web Intelligence and Intelligent Agent Technology (IEEE/WIC/ACM WI-IAT)*, pp. 303-308, Niagara Falls, Canada, November 17-20, 2022.

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15. Yiu-Kai Ng and Urim Jung, "Personalized Book Recommendation Based on a Deep Learning Model and Metadata". In *Proceedings of the* 20^{th} *International Conference on Web Information Systems Engineering (WISE 2019)*, pp. 162-178, Hong Kong, November 26-30, 2019.

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17. Joseph Bills and Yiu-Kai Ng, "Targeting Therapeutic Games to Adults with Autism Spectrum Disorder". In *Proceedings of the* 9^{th} *International Conference on Internet Technologies & Society (ITS 2019)*, pp. 19-26, Hong Kong, February 8-10, 2019.

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19. Andrew Luke, Joseph Johnson, and Yiu-Kai Ng, "Recommending Long-Tail Items Using Extended Tripartite Graphs". In *Proceedings of the IEEE International Conference on Big Knowledge (IEEE ICBK 2018)*, pp. 123-130, Singapore, November 17-18, 2018.

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21. Jeffrey Lund and Yiu-Kai Ng , "Movie Recommendations Using the Deep Learning Approach", In *Proceedings of the IEEE 19th International Conference on Information Reuse and Integration for Data Science (IEEE IRI)*, pp. 47-54, Salt Lake City, Utah, July 7-9, 2018.

22. Alisha Banskota and Yiu-Kai Ng , "A Graduate School Recommendation System Using the Multi-Class Support Vector Machine and KNN Approaches". In *Proceedings of the IEEE 19th International Conference on Information Reuse and Integration for Data Science (IEEE IRI)*, pp. 277-284, Salt Lake City, Utah, July 7-9, 2018.

23. Yiu-Kai Ng and Meilan Jin, "Personalized Recipe Recommendations for Toddlers Based on Nutrient Intake and Food Preferences". In *Proceedings of the* 9^{th} *International ACM Conference on Management of Digital EcoSystems (MEDES'17)*, Bangkok, Thailand, pp. 243-250, November 7-10, 2017.

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63. Jonathan Koberstein and Yiu-Kai Ng, "Using Word Clusters to Detect Similar Web Documents," in *Proceedings of the First International Conference on Knowledge Science, Engineering and Management (KSEM'06)*, LNAI 4092, pp. 215-228, Guilin, China, August 5-8, 2006.

64. Xiaochun Yang, Lin Li, Yiu-Kai Ng, Bin Wang, and Ge Yu, "Associated Load Shedding Strategies for Computing Multi-Joins in Sensor Networks," in *Proceedings of the 11th International Conference on Database Systems for Advanced Applications (DASFAA 2006)*, LNCS 3882, pp. 50-64, Singapore, April 2006.

65. Rajiv Yerra and Yiu-Kai Ng, "A Sentence-Based Copy Detection Approach for Web Documents," in *Proceedings of the Second International Conference on Fuzzy Systems and Knowledge Discovery (FSKD'05)*, Springer's LNAI 3613, pp. 557-570, Changsha, China, August 2005.

66. Rajiv Yerra and Yiu-Kai Ng, "Detecting Similar HTML Documents Using a Fuzzy Set Information Retrieval Approach," in *Proceedings of the IEEE International Conference on Granular Computing (IEEE GrC'05)*, IEEE Press, pp. 693-699, Beijing, China, July 2005.

67. SeungJin Lim and Yiu-Kai Ng, "Categorization and Information Extraction of Multilingual HTML Documents," in *Proceedings of the* 9^{th} *International Database Engineering and Application Symposium (IDEAS'05)*, IEEE Computer Society, pp. 415-422, Montreal, Canada, July 2005.

68. Nathaniel Gustafson, SeungJin Lim, and Yiu-Kai Ng, "Categorization of Web Documents Using Character Encodings," in *Proceedings of the 2005 International Conference on Digital Archive Technologies (ICDAT 2005)*, pp. 175-189, Taipei, Taiwan, June 2005.

69. SeungJin Lim and Yiu-Kai Ng, "Change Discovery of Hierarchically Structured, Order-Sensitive Data in HTML/XML Documents," in *Proceedings of the 2004 International Symposium on Applications and the Internet (SAINT 2004)*, pp. 178-187, IEEE Computer Society, Tokyo, Japan, January 2004.

70. Xiaochun Yang, Bin Wang, and Yiu-Kai Ng, "A Protein Secondary Structure Prediction Framework Based on the Support Vector Machine," in *Proceedings of the Fourth International Conference on Web-Age Information Management* (*WAIM 2003*), pp. 266-277, LNCS 2762, Chengdu, China, August 2003.

71. Kelvin Lau and Yiu-Kai Ng, "A Client-Based Web-Cache Management System," in *Proceedings of the Third International Conference on Web-Age Information Management* (*WAIM'02*), pp. 379-386, LNCS 2419, Beijing, China, August 2002.

72. Seung-Jin Lim, Yiu-Kai Ng, and Xiaochun Yang, "Integrating HTML Tables Using Semantic Hierarchies and Meta-Data Sets," in *Proceedings of the International Database Engineering and Applications Symposium* (*IDEAS'02*), pp. 160-169, IEEE Computer Society, Edmonton, Canada, July 2002.

73. D.W. Embley, Yiu-Kai Ng, and Li Xu, "Recognizing Ontology-Applicable Multiple-Record Web Documents," in *Proceedings of the* 20^{th} *International Conference on Conceptual Modeling* (*ER 2001*), pp. 555-570, Yokohama, Japan, November 2001.

74. Seung-Jin Lim and Yiu-Kai Ng, "An Automated Integration Approach for Semi-Structured and Structured Data," in *Proceedings of the* 3^{rd} *International Symposium on Cooperative Database Systems for Advanced Applications* (*CODAS'01*), pp. 15-24, Beijing, China, April 2001.

75. June Tang, Yiu-Kai Ng, and Michael Goodrich "A Binary-Categorization Approach for Recognizing Multiple-Record Web Documents Using Application Ontologies and A Probabilistic Model," in *Proceedings of the* 7^{th} *International Conference on Database Systems for Advanced Applications* (*DASFAA 2001*), pp. 58-65, April 2001.

76. Seung-Jin Lim and Yiu-Kai Ng, "An Automated Change-Detection Algorithm for HTML Documents Based on Semantic Hierarchies," in *Proceedings of the* 17^{th} *International Conference on Data Engineering* (*ICDE 2001*), pp. 303-312, Heidelberg, Germany, April 2001.

77. Seung-Jin Lim and Yiu-Kai Ng, "A Heuristic Approach for Converting HTML Documents to XML Documents," in *Proceedings of the Sixth International Conference on Rules and Objects in Databases* (*DOOD 2000*), pp. 1182-1196, London, U.K., July 2000.

78. Seung-Jin Lim and Yiu-Kai Ng, "SemiLog: A Logic-Based Query Language for Hierarchical Data in Web Documents," in *Proceedings of the International Conference on Internet Applications*, pp. 109-120, Hong Kong, December 1999.

79. Seung-Jin Lim and Yiu-Kai Ng, "An Automated Approach for Retrieving Hierarchical Data from HTML Tables," in *Proceedings of the Eighth International Conference on Information and Knowledge Management* (*ACM CIKM'99*), pp. 466-474, Kansas City, MO., November 1999.

80. David W. Embley, Yang Jiang, and Yiu-Kai Ng, "Record-Boundary Discovery in Web Documents," in *Proceedings of the ACM International Conference on Management of Data* (*SIGMOD'99*), pp. 467-478, June 1999, Philadelphia, PA.

81. Seung-Jin Lim and Yiu-Kai Ng, "WebView: A Tool for Retrieving Internal Structures and Extracting Information from HTML Documents," in *Proceedings of the* 6^{th} *International Conference on Database Systems for Advanced Applications* (*DASFAA'99*), pp. 71-80, April 1999, Taipei, Taiwan.

82. Seung-Jin Lim and Yiu-Kai Ng, "Constructing Hierarchical Information Structures of Sub-Page Level HTML Documents," in *Proceedings of the* 5^{th} *International Conference of Foundations of Data Organization* (*FODO'98*), pp. 66-75, Kobe, Japan, November 1998.

83. D.W. Embley, D.M. Campbell, Y.S. Jiang, Y.-K. Ng, R.D. Smith, S.W. Liddle and D.W. Quass, "A Conceptual-Modeling Approach to Extracting Data from the Web," in *Proceedings of the* 17^{th} *International Conference on Conceptual Modeling* (*ER'98*), pp. 78-91, Singapore, November 1998.

84. Aparna Seetharaman and Yiu-Kai Ng, "A Model-Forest Based Horizontal Fragmentation Approach for Disjunctive Deductive Databases," in *Proceedings of the International Database Engineering & Applications Symposium* (*IDEAS'98*), pp. 202-211, IEEE Computer Society, July 1998, Cardiff, Wales.

85. Seung-Jin Lim and Yiu-Kai Ng, "Extracting Structures of HTML Documents," in *Proceedings of the* 12^{th} *International Conference on Information Networking* (*ICOIN-12*), pp. 420-426, January 1998, Tokyo, Japan.

86. Aparna Seetharaman and Yiu-Kai Ng, "A Formal Approach for Horizontal Fragmentation of Disjunctive Deductive Databases," in *Proceedings of the* 8^{th} *International Conference on Management of Data* (*COMAD'97*), pp. 293-310, December 1997, Madras, India.

87. Yiu-Kai Ng and Aparna Seetharaman, "A Query-Based Horizontal Fragmentation Approach for Disjunctive Deductive Databases," in *Proceedings of the* 8^{th} *International Conference and Workshop on Database and Expert Systems Applications* (*DEXA'97*), pp. 604-609, September 1997, Toulouse, France.

88. Aparna Seetharaman and Yiu-Kai Ng, "A Minimal-Model Based Horizontal Fragmentation Algorithm for Disjunctive Deductive Databases," in *Proceedings of the International Database Engineering and Applications Symposium* (*IDEAS'97*), pp. 94-103, IEEE Computer Society, August 1997, Montreal, Canada.

89. Seung-Jin Lim and Yiu-Kai Ng, "Design and Analysis of Parallel Set-term Unification," in *Proceedings of the Third Annual International Computing and Combinatorics Conference* (*COCOON'97*), pp. 321-330, August 1997, Shanghai, China, LNCS 1276.

90. Seung-Jin Lim and Yiu-Kai Ng, "'A Formal Approach for Horizontal Fragmentation in Distributed Deductive Database Design," in *Proceedings of the* 7^{th} *International Conference on Database and Expert Systems Applications* (*DEXA 96*), pp.

604-609, September 1996, Zurich, Switzerland.

91. David Embley, Stephen Liddle and Yiu-Kai Ng, "On Harmonically Combining Active, Object-Oriented, and Deductive Databases," in *Proceedings of the Third International Workshop on Advances in Databases and Information Systems* (*ADBIS'96*), pp. 21-30, September 1996, Moscow, Russia.

92. Seung-Jin Lim and Yiu-Kai Ng, "Rule and Data Allocation in Distributed Deductive Database Systems," in *Proceedings of the* 8^{th} *International Conference of Computing and Information* (*ICCI'96*), pp. 979-1000, June 1996, Toronto, Canada.

93. Yiu-Kai Ng and Nael Qaraeen, "Data Retrieval and Aggregates in SQL^*/NR," in *Proceedings of the Sixth International Conference on Information Systems and Management of Data* (*CISMOD'95*), pp. 283-301, November 1995, Bombay, India, LNCS 1006.

94. Seung-Jin Lim and Yiu-Kai Ng, "Set-Term Unification in a Logic Database Language," in *Proceedings of the First Annual International Computing and Combinatorics Conference* (*COCOON'95*), pp. 101-110, August 1995, Xian, China, LNCS 959.

95. Seung-Jin Lim and Yiu-Kai Ng ,"Set-Term Matching in a Logic Database Language," in *Proceedings of the* 4^{th} *International Conference on Database Systems for Advanced Applications* (*DASFAA'95*), pp. 189-196, April 1995, Singapore.

96. Qing Chang and Yiu-Kai Ng ,"Built-in Predicates for Extended Relational Algebra Operations in a Logic Database Language (Summary)," in *Proceedings of the First Joint Conference on Information Sciences* (*JCIS94*), pp. 96-99, November 1994, Pinehurst, North Carolina.

97. Yiu-Kai Ng and Qing Chang,"An Efficient Unification Algorithm for a Logic Database Language for Nested Relations," in *Proceedings of the* 5^{th} *International Conference on Information Systems and Management of Data* (*CISMOD'94*), pp. 34-52, October 1994, Madras, India.

98. Wai-Yin Mok, David Embley, and Yiu-Kai Ng, "Theoretical and Practical Implications of a New Definition for Nested Normal Form," in *Proceedings of the* 5^{th} *International Conference on Information Systems and Management of Data* (*CISMOD'94*), pp. 55-75, October 1994, Madras, India.

99. Wai Yin Mok, Yiu-Kai Ng, and David Embley,"An Improved Nested Normal Form for Use in Object-Oriented Software Systems," in *Proceedings of the Second International Computer Science Conference: Data and Knowledge Engineering: Theory and Applications*, pp. 446-452, December 1992, Hong Kong.

100. Yiu-Kai Ng, "Semantic Constraints on the Connections Among Tuple Components in Non-Normal-Form Models," in *Proceedings of the* 19^{th} *ACM Annual Computer Science Conference*, pp. 311-320, March 1991, San Antonio, Texas.

101. Yiu-Kai Ng, Austin Melton, and Elizabeth Unger, "A Method for Constructing Generalized Non-Normal-Form Models," in *Proceedings of the* 19^{th} *ACM Annual Computer Science Conference*, pp. 146-152, March 1991, San Antonio, Texas.

102. Yiu-Kai Ng and David Embley, "The Retrieval Power of NFQL," in *Proceedings of the* 17^{th} *ACM Annual Computer Science Conference*, pp. 62-69, February 1989, Louisville, Kentucky.

Teaching Experience (Computer Science Classes Taught)

CS 153	Discrete Mathematics	CS 252	Introduction to Computational Theory
CS 353	Database Modeling Concepts	CS 451	Database Concepts
CS 452	Database Design Concepts	CS 453	Fundamentals of Information Retrieval
CS 501R	Logic Programming	CS 653	Information Retrieval
CS 554	Distributed Databases	CS 501R	Deductive Databases

Research Interests

Question-Answering Systems	Information Retrieval
Web Query Processing	Recommender Systems

Graduate Students

- Current Graduate Students
  - Sophie Gao, "Answering Math Questions Using KL-Divergence and the Approximate XML Tree Matching Approach", Active.

- Former Graduate Students
  - Joseph Bills, "Enhancing the Opportunities for Adults with Autism to Find Jobs Using a Job-Matching Algorithm", June 2022.
  - Eric Brewer, "Age-Suitability Prediction for Literature Using Deep Neural Networks", July 2020.
  - Alisha Banskota, "Recommending Games to Adults with Autism Spectrum Disorder (ASD) for Skill Enhancement Using *Minecraft*", October 2019.
  - Maria Soledad Pera (Ph.D.), "Using Online Data Sources to Make Recommendations on Reading Materials for K-12 and Advanced Readers", April 2014.
  - Rani Qumsiyeh, "Easy to Find: Creating Query-Based Multi-document Summaries to Enhance Web Search", April 2011.
  - Maria Soledad Pera (M.S.), "Improving Library Searches Using Word-Correlation Factors and Folksonomies", April 2009.
  - Ian Garcia, "Eliminating Redundant and Less-Informative RSS News Articles Based on Word Similarity and a Fuzzy Equivalent Relation" January 2007.
  - Amit Ahuja, "A Dynamic Attribute-Based Load-Shedding and Data Recovery Scheme for Data Stream Management Systems," July 2006.
  - Rajiv Yerra, "Detecting Similar HTML Documents Using a Sentence-Based Copy Detection Approach" (thesis completed and graduated), July 2005.

- Lihua Zhang, "Retrieving Information from Tables in Chinese HTML Documents Using a Chinese Query Engine" (thesis submitted and graduated), December 2002.
- Seung-Jin Lim (Ph.D.), "Semantic Hierarchies of HTML Documents and Their Applications" (dissertation submitted and graduated), November 2001.
- Quan Wang, "A Binary-Categorization Approach for Classifying Multiple-Record Web Documents Using a Probabilistic Retrieval Model," (thesis submitted and graduated), November 2001.
- Jiaxin Jerry Gao, "Study and Implementation of Selective Splitting Algorithms and Cache Maintenance Algorithms in Associative Client Cache" (thesis submitted and graduated), November 2001.
- Kelvin Lau, "A Client-based Web Cache Management System with Prefetching Schedules" (thesis submitted and graduated), October 2000.
- Linus Kwong, "Automatic Categorization of Multiple-Record Web Documents Based on Application Ontologies and Information Retrieval Models" (thesis submitted and graduated), July 1999.
- Yuan Jiang, "Record-Boundary Discovery in Web Documents" (thesis submitted and graduated), December 1998.
- Cesar Bustamante, "A Formal Approach to Hybrid Fragmentation of Distributed Deductive Database Systems" (thesis proposal approved - December 1997).
- Tim Johnson, "Efficient Query Evaluation Strategies for LDL/NR" (thesis submitted and graduated), October 1997.
- Aparna Seetharaman, "Formal Approaches for Horizontal Fragmentation of Disjunctive Deductive Databases" (thesis submitted and graduated), August 1996.
- Nael Qaraeen, "SQL^*/NR: A Recursive Query Language for Nested Relations" (thesis submitted and graduated), July 1995.
- Seung-Jin Lim, (M.S.) "Set-term Unification in a Logic Database Language" (thesis submitted and graduated), December 1994.
- Qing Chang, "A Logic Database Language for Nested Relations in Partition Normal Form" (thesis submitted and graduated), December 1993.

Current Undergraduate Students

- Nathaniel Benham, Senior in Computer Science
- DJ Kim, Junior in Computer Science

Special Awards

- The paper, "A Hybrid Approach for Summarizing User Reviews Based on KL-Divergence and Deep Learning", co-authored by me, Nathaniel Benham and Sophie

Gao, was selected for the *Best Student Paper Award* by the program committee chairs of the 34^{th} IEEE International Conference on Tools with Artificial Intelligence (ICTAI).

- The paper, "Targeting Therapeutic Games to Adults with Autism Spectrum Disorder," co-authored by me and Joseph Bills, was selected for the *Outstanding Paper Award* by the International International Conference on Internet Technologies & Society (ITS 2019).

- The paper, "Personalized Recipe Recommendations for Toddlers Based on Nutrient Intake and Food Preferences", co-authored by me and Meilan Jin, was selected by the 9^{th} International ACM Conference on Management of Digital EcoSystems (MEDES'17) for the *Best Paper Award*.

- Our ICDE'01 paper, "An Automated Change-Detection Algorithm for HTML Documents Based on Semantic Hierarchies," co-authored by me and my graduate student, Seung-Jin Lim, was selected for the *Best Student Paper Award* at ICDE'01 International conference, April 2001.

- Seung-Jin Lim's master's thesis was selected as the *outstanding master's thesis* for the College of Physical and Mathematical Sciences for 1994-95.

Citizenship and Service

(a) **BYU**

- Department - Members of the following department committees:
  - *Department Promotion, Raise, & Leave Committee*, September 2021 - present.
  - *Department Internship Coordinator*, September 2006 - present.
  - *Student Research Conference (SRC) Department Coordinator*, September 2017 - present.
  - *Graduate Committee*, September 2011 - August 2018.
  - *Computer Merit-Badge Coordinator*, BYU Boy Scouts Pow-wow, September 2001 - August 2016.
  - College: Reviewer of *BYU ORCA Mentoring Grant Proposals*, September 2003 - August 2015.
  - *Undergraduate Scholarship Representative*, August 1999 - July 2002.
  - *Recruitment Committee*, August 1997 - July 1999.
  - *Promotion, Tenure, and Leave Committee*, August 1997 - August 1999.
  - *Computing/Capital Equipment* & *Undergraduate Curriculum Committees*, August 1996 - August 1997.
  - *Graduate Admissions Committee*, September 1995 - August 1996.

- *Graduate Affairs & Admissions Committee*, September 1993 - August 1996.
- *Promotion & Tenure Committee*, September 1992 - August 1993.

- University
  - Advisor of the *Hong Kong Student Association*, April 1992 - August 1995, September 2021 - Present.
  - Member of the *Pre-medical Committee*, February 1998 - April 2000.
  - Member of the *BYU Self-Study Task Force Committee on International LDS Graduate Students at BYU*, March 1995 - April 1995.

(b) **Professional**

- Editorships on professional journals

  (a) Associate Editor of the *International Journal of Web Information Systems*, Emerald Publishing, 2017 - Present.

  (b) Review an article, "Detecting News Scrap Using Sentence Level Approach for Duplicate Document Detection," submitted to the *ETRI Journal*. September 25, 2009.

  (c) Refereed an article "Web Change Detection with CDweb," submitted to *Journal of Information Systems*, January 7, 2002.

  (d) Refereed an article "A Methodology to Vertical Partitioning for a Multi-Relation Database Environment," submitted to *IEEE Transactions on Knowledge and Database Engineering (KDE)*, October 25, 2001.

  (e) Refereed an article "Fast Text and Image Retrieval in Combination: a Feasibility Demonstration," submitted to *WISE 2001*, September 21, 2001.

  (f) Refereed an article "Managing the Information Retrieved from Knowledge Portals," submitted to the *ACM Tenth International Conference on Information and Knowledge Management (CIKM 2001)*, July 10, 2001.

  (g) Refereed an article "Nesting-Based Relational-to-XML Schema Translation," submitted to the *Fourth International Workshop on the Web and Databases (WebDB'2001)*, March 30, 2001.

  (h) Refereed an article "Logical Structure Analysis for Structured Document Generation: A Syntactic Approach," submitted to *IEEE Journal of Knowledge and Data Engineering (IEEE-KDE)*, November 30, 2000.

  (i) Refereed five articles submitted to the 17^{th} *International Symposium on Database Systems for Advanced Applications (DASFAA'01)*, November 2000.

  (j) Refereed six articles submitted to the *2000 ADBIS-DASFAA International Conference*, September 2000.

(k) Refereed an article "Flexible and Modular Semi-Structured Data Model," submitted to the 1^{st} *International Conference on Web Information Systems Engineering (WISE 2000)*, April 21, 2000.

(l) Refereed two articles submitted to the *International Workshop on the World-Wide Web and Conceptual Modeling (WWWCM'99)*, Paris, France, November 15-18, 1999.

(m) Refereed an article "A Practical Approach to Dynamic Horizontal Fragmentation of Database Object Classes" submitted to *The Computer Journal*, November 8, 1999.

- Conference organization involvement

  (a) Program Committee Member of the *ACM SIGIR*, *ACM TheWebConf*, and *ACM RecSys*, 2020 - Present.

  (b) Program Committee Member of the *International Database Engineering & Applications Symposium (IDEAS)*, 2006 - Present.

  (c) Program Committee Member of the 3^{rd} *International Workshop on Web Information and Data Management (WIDM'01)*, November 9, 2001.

  (d) Program Committee Member of the 17^{th} *International Symposium on Database Systems for Advanced Applications (DASFAA'01)*, April 18-20, 2001.

  (e) Program Committee Member of the *2000 International Symposium on Advances in Databases and Information Systems and Database Systems for Advanced Applications (ADIS-DASFAA'00)*, September 5-8, 2000.

  (f) Organizing Committee Member (Registration) of the 19^{th} *International Conference on Conceptual Modeling (ER'2000)*, October 9-12, 2000.

- Professional organization service

  – Chair the Technical Session—Information Retrieval—at the 21^{st} *IEEE International Conference on Tools with Artificial Intelligence (IEEE ICTAI 2009)*, November 4, 2009, Newark, New Jersey.

  – Served as the Session Chair of the *Queries and Security* session at the 9^{th} *International Database Engineering and Applications Symposium* (*IDEAS'05*), Montreal, Canada, July 27, 2005.

  – Served as the Session Chair of the *Heterogeneous & Network Databases* session at the 7^{th} *International Conference on Database Systems for Advanced Applications (DASFAA 2001)*, April 10, 2001.

  – Served as the Session Chair of the *Information Retrieval* session at the *International Conference on Internet Applications*, December 15, 1999.

- Invited Lectures

– "Detecting Similar Web Documents Using a Fuzzy Set Information Retrieval Approach," *Computer Science Colloquia*, China Northeastern University, Shenyang, China, July 22, 2005.

– "Semantic Hierarchies of HTML Documents and Their Applications," *Computer Science Department Colloquia*, Kent State University, Kent, Ohio, March 22, 2002.

– "Databases," MFET 591R, *Graduate Seminar*, Department of Manufacturing Engineering & Engineering Technology, Brigham Young University, November 27, 1995.

– "An Improved Normal Form for Nested Relations," *Computer Science Department Colloquia*, Michigan Technological University, Houghton, Michigan, August 19, 1993.

Professional Memberships

- Member of the Association for Computing Machinery (ACM)