

TABLE OF CONTENTS

ONE PAGE SUMMARY WITH KEY HIGHLIGHTS (as of April 2024)	1
Research	1
Major Awards and Recognitions	1
In Research	1
In Technology Transfer and Grants	1
In Education	1
In Service	1
Editorship, Panel, Organization, etc.	1
1 PERSONAL DATA	2
2 EDUCATION	2
3 PROFESSIONAL EXPERIENCE	2
4 PROFESSIONAL SOCIETIES	4
5 MAIN RESEARCH INTERESTS	5
6 LIST OF RESEARCH OUTPUTS OR CREATIVE WORKS	5
6.1 Journal Papers	5
6.2 Conference Papers	9
6.3 Special Issues in Journals	26
6.4 Books Authored	26
6.5 Book Chapters	26
6.6 Books Edited	27
6.7 Book Reviews	27
7 KNOWLEDGE TRANSFER ACTIVITIES	27
7.1 Patents	27
7.2 Trademarks	28
7.3 Software Packages	28
7.4 ITDC Montage Image Database Project and Related Information	28
7.4.1 Publications	28
7.4.2 Exhibitions & Demonstrations	28
8 RESEARCH GRANTS	28
8.1 Competitive Grants	29
8.2 Non-Competitive Grants	30
8.3 Project Contracts (HKD \$60.23 M as of August 2020)	31
8.4 Summary	31
Research	31
Education	33
Industry	34
12 AWARDS AND HONORS	34
9.1 Research	34
9.2 Teaching, Service, Competition, and Others	35
10 VISITING AND GUEST PROFESSORSHIP	35
11 EDITORSHIP	35
12 INVITED PRESENTATIONS/ LECTURES	36
13 KEYNOTE SPEECHES/ DISTINGUISHED LECTURES	37
14 CONFERENCE ORGANIZATION	38
15 PROFESSIONAL SOCIETY ACTIVITIES	39

15.1 Professional Qualification and Membership	39
15.2 Society Activities	39
16 POSTGRADUATE STUDENTS	39
16.1 Graduated PhD students (Total: 29)	39
16.2 Graduated MPhil students (Total: 24)	41
16.3 Current PhD Students (Total: 11)	42
16.4 Current MPhil Students (Total: 1)	43
16.5 Postdoctoral Research Associates and Fellows	43
17 INTERNAL SERVICE	44
17.1 Department	44
17.2 Faculty	44
17.2.1 Summary of Selected Achievements as Associate Dean (Education) from 2013-2016	45
17.2.1.1 Curriculum	45
17.2.1.2 New Programmes	46
17.3 College	46
17.3.1 Lee Woo Sing College (LWSC)	46
17.3.2 New Asia College (NAC)	46
17.4 University	46
Major Projects	46
18 EXTERNAL SERVICE	48
18.1 Panel Members	48
18.2 Journal Reviewer/Referee	48
18.3 Conference Area Chair, Senior PC, and PC	48
Area Chair (AC)	48
Senior Program Committee (SPC) Member	48
Program Committee (PC) Member	48

ONE PAGE SUMMARY WITH KEY HIGHLIGHTS (as of April 2024)

Irwin Kuo Chin KING
ORCID: 0000-0001-8106-6447

Research

1. Google Scholar: 32,000 citations, 79 h-index, 323 10-index (since 2019, 17,000 citations, 59 h-index, 217 10-index)
2. SCOPUS: 391 publications, 13,548 citations, 53 h-index
3. Web of Science: 175 publications, 3265 citations, 27 h-index
4. DBLP: 89 journal manuscripts; 311 conference papers; 25 edited volumes, 2 books
5. Research.com: 1151 (world), 108 (national, China), 70 D-index, 22,571 citations, 452 publications
6. CSRanking.org (Hong Kong, AI): 63 (count), 14.8 (adjusted number)

Major Awards and Recognitions

In Research

1. **IEEE Fellow (2019); ACM Distinguished Member (2020);** International Neural Network Society (INNS) Fellow; Asia-Pacific AI Association (AAIA) Fellow; Hong Kong Institution of Engineers (HKIE) Fellow; Kavli Fellow; Lee Woo Sing College Fellow; Apple Distinguished Educator
2. World's Top 2% Scientists by Stanford University (September 2022)
3. Global AI 2000 List since 2000
4. ACM WSDM 2022 Test of Time Award
5. ACM SIGIR 2020 Test of Time Award
6. ACM CIKM 2019 Test of Time Award
7. 2021 INNS Dennis Gabor Award for work in Neural Engineering for Social Computing
8. 2020 AAchievement Award
9. ICONIP 2020 Best Papsia Pacific Neural Network Society (APNNS) Outstanding er Award
10. JCDL 2012 Vannevar Bush Best Paper Award
11. The 4th Beijing-Hong Kong International Doctoral Forum 2009 Best Paper Award
12. CVPR 2019 Best Paper Finalist; CIKM 2016 Best Paper Award Runner-up; ICONIP 2017 Best Paper Award Runner-up

In Technology Transfer and Grants

1. **Seven patents worldwide** in information technology-related areas
2. **Over HKD \$78.65 M** in competitive and non-competitive research grants, project contracts, education, etc. Grants: Research (HKD \$10.78 M), Education (HKD \$62.02 M), Industry (HKD \$5.85 M)

In Education

1. **Associate Dean (Education)**, Engineering Faculty, CUHK (2013-19)
2. **University Teaching Award (Team) 2020**, CUHK
3. The Vice-Chancellor's Exemplary Award 2016
4. Faculty of Engineering Exemplary Teaching Award 2007
5. Computer Science and Engineering Exemplary Teaching Award 2006
6. Faculty of Engineering Exemplary Teaching Award 2003
7. Hong Kong ICT Awards (HKICT Awards) 2021: Smart People (Smart Education and Learning) Gold Award to the AI Academy Project

In Service

1. Vice-President, ACM SIGWEB (2023–present)
2. VP of Conference, the WebConf Steering Committee (2022–present)
3. Chair and Professor, Department of Computer Science & Engineering (2020–2023)
4. Associate Dean (Education), Faculty of Engineering (2013–2019)
5. Director, The ELearning Innovation and TEchnology (ELITE) Centre, CUHK (2018--present)
6. Director, Rich Media Big Data Analytics and Application Key Laboratory, SZRI (2010--2020)
7. Principal Investigator, The Knowledge and Education Exchange Platform (KEEP) Project (2014–present)
8. Principal Investigator and Co-Founder, The VeriGuide Project, CUHK (2005–present)

Editorship, Panel, Organization, etc.

1. Associate Editor, Neural Network Journal (2010–present)
2. Chairs and Advisory Panel, Applied Computing and Intelligence (ACI) (2021–present)
3. Editorial Board Member, International Journal of Data Science and Analytics (2020–present)
4. Former IEEE TNN Associate Editor (2007–2011)
5. Former Engineering Panel Member, Research Grants Council (RGC) (2005-2011)
6. President, International Neural Network Society (INNS) (2019-2020)
7. Vice-President, Asia-Pacific Neural Network Society (APNNS) (2017-2018)
8. International World Wide Web Conference Committee (IW3C2) Member (2016–2023)

CURRICULUM VITAE

Irwin Kuo Chin KING
0000-0001-8106-6447

(as of April 2024)

1 PERSONAL DATA

Full Name: Irwin Kuo Chin KING
Office Address: Room 908, Ho Sin-Hang Engineering Building
The Chinese University of Hong Kong
Shatin, N.T., Hong Kong SAR
Telephone No.: +(852) 3943 8398
Fax No: +(852) 2603 5024
E-mail Address: king@cse.cuhk.edu.hk
Webpage (URL): <https://www.cse.cuhk.edu.hk/irwin.king>
ORCID ID: 0000-0001-8106-6447
Web of Science
ResearcherID: C-9681-2015
Publons: C-9681-2015
Google Scholar: MXvC7tkAAAAJ
Semantic Scholar: 145310663
DBLP: <https://dblp.org/pers/hd/k/King:Irwin>

2 EDUCATION

- Ph.D., Computer Science, June 1993.
 - University of Southern California (USC), Los Angeles, CA. USA
 - Dissertation Title: A High-Level Approach to Motion Interpretation in Dynamic Scenes
 - Committee Members: Prof. Michael A. Arbib (advisor), Prof. Christoph von der Malsburg, Prof. Irving Biederman, Prof. Gerald Medioni
- M.S., Computer Science, December 1986.
 - University of Southern California (USC), Los Angeles, CA. USA
- B.Sc., Engineering & Applied Science (Computer Science), June 1984.
 - California Institute of Technology (Caltech), Pasadena, CA. USA

3 PROFESSIONAL EXPERIENCE

- **Chairman**, August 2020 - July 2023
Department of Computer Science & Engineering
The Chinese University of Hong Kong, Shatin, N.T., Hong Kong
- **Director**, September 2019 - Present
Centre for eLearning Innovation and Technology (ELITE)
The Chinese University of Hong Kong, Shatin, N.T., Hong Kong
- **Associate Dean (Education)**, August 2013 - July 2019
Faculty of Engineering
The Chinese University of Hong Kong, Shatin, N.T., Hong Kong
To lead and oversee endeavors in promoting education excellence through the use of technologies and pedagogical tools.
- **Professor**, A1 August 2010 - July 2017. A2 August 2017 - Present, A3 - Present
Department of Computer Science & Engineering
The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

Affiliated with Lee Woo Sing College

Research in machine learning, social computing, data mining, web intelligence, multimedia information processing, and teach undergraduate and graduate students. Taught Web Intelligence and Social Computing, Information Retrieval and Search Engines, and Data Structure and Algorithm courses.

- **Lead Member of the Technical Staff**, November 2010 - May 2012
AT&T Labs Research
San Francisco, CA USA
Research in machine learning, social computing, data mining, web intelligence, computational advertising, user profiling, and modeling, etc.
- **Visiting Professor**, August 2011 - July 2012
School of Information
University of California, Berkeley, Berkeley, CA USA
Teach a course on “Social Computing” to graduate students at the Information School. The topics include a wide range of them from social network theory, graph mining, recommender systems, human computation, crowdsourcing, learning to rank, sentiment analysis, opinion mining, etc.
- **Associate Professor**, July 1998 - August 2010
Department of Computer Science & Engineering
The Chinese University of Hong Kong, Shatin, N.T., Hong Kong
Research in content-based information retrieval and multimedia object indexing, and teach undergraduate and graduate students. Taught Image Processing and Computer Vision and Data Structure and Algorithm courses.
- **Assistant Professor**, September 1995 - July 1998
Department of Computer Science
The Chinese University of Hong Kong, Shatin, N.T., Hong Kong
Research in biological neural networks for visual processing and teach undergraduate and graduate students. Taught Fundamentals of Artificial Intelligence and Data Structure and Applications courses.
- **Lecturer**, July 1993 - September 1995
Department of Computer Science
The Chinese University of Hong Kong, Shatin, N.T., Hong Kong
- **Scientific System Software Engineer**, Sept. 1984 - July 1993
Xerox Special Information Systems (XSIS), Pasadena, CA.
Analyst application software developments in the SmallTalk language. They include a publishing editor, icon editor, business graphics charting software, database management software, etc.
- **Research Assistant**, June 1988 - July 1993
Center for Neural Engineering
University of Southern California, Los Angeles, CA.
Research work in biological neural networks, schema theory, and computer vision under Dr. M. A. Arbib.
- **Teaching Assistant**, Sept. 1987 - Dec. 1987
Department of Computer Science
University of Southern California, Los Angeles, CA.
Conducted discussion sessions for CS564-Brain Theory and Artificial Intelligence.
- **Computer Science Lecturer**, Sept. 1987 - June 1988
Occidental College, Los Angeles, CA.
Taught three undergraduate courses: Introduction to Computer Science, Data Structure & Algorithms, and Models of Computation.

- **Physics Lab Instructor**, Jan. 1986 - June 1987
Glendale Community College, Glendale, CA.
California-certified Physics lab instructor. Instruction on mechanics, electricity, magnetism, numerical methods, and lab techniques.
- **Summer Intern**, June 1984 - Sept. 1984
Xerox Special Information Systems (XSIS), Pasadena, CA.
SmallTalk application programmer.
- **System Programmer / Analyst**, Nov. 1981 - Sept. 1982
Digital Research, Inc. Sierra Madre, CA.
Consultant in CBASIC, and CB80 languages. Testing of CP/M, and MPM operating systems. Providing technical and customer support for software products.
- **System Programmer**, May 1981 - Nov. 1981
Compiler System, Inc. Sierra Madre, CA.
Application software developments and testing of CBASIC, and CB80 languages. Providing customer support for software products.

4 PROFESSIONAL SOCIETIES

1. Institute of Electrical and Electronic Engineering (IEEE) - Computational Intelligence Society, Computer Society, Member: 1986–2008; Senior Member: 2008 – 2018; Fellow: 2019 – Present
2. Association of Computing Machinery (ACM), Member: 1996 – 2019; Distinguished Member: 2020 – Present
3. International Neural Network Society (INNS), Member: 1994–1998; 2009 – Present; President: 2019 – Present
4. International World Wide Web Conference Consortium (IW3C2), Member: 2016 – Present
5. Hong Kong Institution of Engineers (HKIE), Fellow: 2013 – Present
6. Asia Pacific Neural Network Society (APNNS), Member: 1994 – Present
7. Hong Kong Society for Multimedia and Image Computing (HKSMIC), Member: June 1997 – Present
8. International Society for Optical Engineering, SPIE, Member: June 1997 – Present
9. International Who's Who of Professionals, 1997–1998, 2010-2011
10. New York Academy of Sciences, Member 1995–1997

5 MAIN RESEARCH INTERESTS

- Machine Learning, Social Computing, Web Intelligence, AI, Data Mining, Multimedia Information Processing
 - Machine Learning: multi-armed bandit, large margin classifiers, semi-supervised learning, kernel methods, online learning, etc.
 - Social Computing: recommender systems, collaborative filtering, location-based services, social network analysis, NLP, graph embedding, human computation, crowdsourcing, etc.
 - Web Intelligence: information retrieval, social media analysis, etc.
 - Multimedia Information Processing: content-based image analysis, video summarization, optic-flow, etc.

6 LIST OF RESEARCH OUTPUTS OR CREATIVE WORKS

Publications (Total: 456) (Citations: 18505; Source: Google Scholar as of August 2020)

Refereed Publications

1. ACM Transactions on Intelligent Systems and Technology (ACM TIST): 2.861 @ 2018
2. ACM Transactions on Knowledge Discovery from Data (ACM TKDD): 1.895
3. Data Knowledge Engineering: 1.500 @ 2015
4. Decision Support Systems: 4.721 @ 2020
5. IEEE Service Computing: 1.382 @ 2019
6. IEEE Transaction on Neural Networks and Learning Systems (IEEE TNNLS): 11.683 @ 2018
7. IEEE Transactions on Knowledge and Data Engineering (IEEE TKDE): 4.561 @ 2018
8. IEEE Transactions on System, Man, and Cybernetics Part B: Cybernetics (IEEE TSMC-B): 5.132 @ 2018
9. Information Retrieval Journal: 2.209 @ 2019
10. Information Systems: 20777 @ 2016
11. International Journal of Pattern Recognition and Artificial Intelligence: 1.11 @ 2018
12. Knowledge Information Systems: 3.170 @ 2020
13. Machine Learning: 2.809 @ 2018
14. Neural Computation: 2.207 @ 2014
15. Neural Networks: 7.197 @ 2017
16. Neural Processing Letter: 1.26 @ 2018
17. Neurocomputing: 3.317 @ 2016
18. Transactions of the Association for Computational Linguistics (TACL)

6.1 Journal Papers

Please refer to DBLP (<https://dblp.org/pid/k/IrwinKing.html>) for a complete list of most updated publications.

1. Xixian Chen, Haiqin Yang, Shenglin Zhao, Michael R. Lyu, Irwin King: Effective Data-Aware Covariance Estimator From Compressed Data. IEEE Trans. Neural Networks Learn. Syst. 31(7): 2441-2454 (2020)
2. Jichuan Zeng, Jing Li, Yulan He, Cuiyun Gao, Michael R. Lyu, Irwin King: What You Say and How You Say it: Joint Modeling of Topics and Discourse in Microblog Conversations. Trans. Assoc. Comput. Linguistics 7: 267-281 (2019)
3. Shenglin Zhao, Michael R. Lyu, Irwin King: Point-of-Interest Recommendation in Location-Based Social Networks. Springer Briefs in Computer Science, Springer 2018, ISBN 978-981-13-1348-6, pp. 1-99
4. Shenglin Zhao, Irwin King, Michael R. Lyu: Aggregated Temporal Tensor Factorization Model for Point-of-Interest Recommendation. Neural Process. Lett. 47(3): 975-992 (2018)
5. Hongyi Zhang, Xingyu Niu, Irwin King, Michael R. Lyu: Overlapping community detection with preference and locality information: a non-negative matrix factorization approach. Social Netw. Analys. Mining 8(1): 43:1-43:14 (2018)

6. Junjie Hu, Haiqin Yang, Michael R. Lyu, Irwin King, Anthony Man-Cho So: Online Nonlinear AUC Maximization for Imbalanced Data Sets. *IEEE Trans. Neural Networks Learn. Syst.* 29(4): 882-895 (2018)
7. Geoffrey Holmes, Tie-Yan Liu, Hang Li, Irwin King, Masashi Sugiyama, Zhi-Hua Zhou: Introduction: special issue of selected papers from ACML 2015. *Mach. Learn.* 106(4): 459-461 (2017)
8. Razieh Rahimi, Azadeh Shakery, and Irwin King. Extracting translations from comparable corpora for Cross-Language Information Retrieval using the language modeling framework. *Inf. Process. Manage.*, 52(2):299–318, 2016.
9. Kuan-Ta Chen, Omar Alonso, Martha Larson, and Irwin King. Introduction to the Special Issue on Crowd in Intelligent Systems. *ACM TIST*, 7(4):44:1–44:2, 2016.
10. Chen Cheng, Haiqin Yang, Irwin King, and Michael R. Lyu. A Unified Point-of-Interest Recommendation Framework in Location-Based Social Networks. *ACM TIST*, 8(1):10:1– 10:21, 2016.
11. Baichuan Li, Rong-Hua Li, Irwin King, Michael R. Lyu, and Jeffrey Xu Yu. A topic-biased user reputation model in rating systems. *Knowl. Inf. Syst.*, 44(3):581–607, 2015.
12. Razieh Rahimi, Azadeh Shakery, and Irwin King. Multilingual information retrieval in the language modeling framework. *Inf. Retr. Journal*, 18(3):246–281, 2015.
13. Haiqin Yang, Kaizhu Huang, Irwin King, and Michael R. Lyu. Maximum margin semi-supervised learning with irrelevant data. *Neural Networks*, 70:90–102, 2015.
14. Razieh Rahimi, Azadeh Shakery, and Irwin King. Multilingual information retrieval in the language modeling framework. *Inf. Retr. Journal*, 18(3):246–281, 2015.
15. Tom Chao Zhou, Michael Rung-Tsong Lyu, Irwin King, and Jie Lou. Learning to suggest questions in social media. *Knowl. Inf. Syst.*, 43(2):389–416, 2015.
16. Man-Ching Yuen, Irwin King, and Kwong-Sak Leung. TaskRec: A task recommendation framework in crowdsourcing systems. *Neural Processing Letters*, 41(2):223–238, 2015.
17. Haiqin Yang, Guang Ling, Yuxin Su, Michael R. Lyu, and Irwin King. Boosting response aware model-based collaborative filtering. *IEEE Trans. Knowl. Data Eng.*, 27(8):2064– 2077, 2015.
18. Bo Xu, Kaizhu Huang, Irwin King, Cheng-Lin Liu, Jun Sun, and Satoshi Naoi. Graphical lasso quadratic discriminant function and its application to character recognition. *Neuro- computing*, 129:33–40, 2014.
19. Irwin King and Wolfgang Nejdl. Introduction to the special section on Twitter and microblogging services. *ACM TIST*, 4(1):1, 2013.
20. Jie Tang, Ling Chen, Irwin King, and Jianyong Wang. Introduction to special section on large-scale data mining. *Data Knowl. Eng.*, 87:355–356, 2013.
21. Haiqin Yang, Michael R. Lyu, and Irwin King. Efficient online learning for multitask feature selection. *TKDD*, 7(2):6, 2013.
22. Zibin Zheng, Hao Ma, Michael R. Lyu, and Irwin King. Collaborative web service QoS prediction via neighborhood integrated matrix factorization. *IEEE T. Services Computing*, 6(3):289–299, 2013.
23. Stefan M. Rögger, Vijay V. Raghavan, Irwin King, and Jimmy Xiangji Huang. Special issue on advances in web intelligence. *Neurocomputing*, 76(1):48–49, 2012.
24. Guang Ling, Haiqin Yang, Michael R. Lyu, and Irwin King. Response aware model-based collaborative filtering. *CoRR*, abs/1210.4869, 2012.
25. Zibin Zheng, Tom Chao Zhou, Michael R. Lyu, and Irwin King. Component ranking for fault-tolerant cloud applications. *IEEE T. Services Computing*, 5(4):540–550, 2012.
26. Hao Ma, Irwin King, and Michael R. Lyu. Mining web graphs for recommendations. *IEEE Transactions on Knowledge and Data Engineering*, 24(6):1051–1064, 2012.
27. Hongbo Deng, Irwin King, and Michael R. Lyu. Enhanced models for expertise retrieval using community-aware strategies. *IEEE Transactions on Systems, Man, and Cybernetics, Part B*, 42(1):93–106, 2012.
28. Zhenjiang Lin, Michael R. Lyu, and Irwin King. Matchsim: a novel similarity measure based on maximum neighborhood matching. *Knowledge Information System*, 32(1):141–166, 2012.
29. Mingzhen Mo, Irwin King, and Kwong-Sak Leung. Empirical comparisons of attack and protection algorithms for online social networks. *Procedia CS*, 5:705–712, 2011.
30. Zibin Zheng, Hao Ma, Michael R. Lyu, and Irwin King. Qos-aware web service recommendation by collaborative filtering. *IEEE Transactions on Service Computing*, 4(2):140–152, 2011.

31. Hao Ma, Jacky Zhu, Michael R. Lyu, and Irwin King. Bridging the semantic gap between image contents and tags. *IEEE Transactions on Multimedia (TMM)*, 12(5):462–473, August 2010.
32. Hao Ma, Irwin King, and Michael R. Lyu. Learning to recommend with explicit and implicit social relations. *ACM Transactions on Intelligent Systems and Technology (TIST)*, 2(3):29:1–29:19, May 2011.
33. Hao Ma, Tom Chao Zhou, Michael R. Lyu, and Irwin King. Improving recommender systems by incorporating social contextual information. *ACM Transactions on Information Systems (TOIS)*, 29(2):9:1–9:23, April 2011.
34. Wei Wang and Irwin King. Label ranking with semi supervised learning. *Australian Journal of Intelligent Information Processing Systems*, 2(1):35–40, 2010.
35. Zenglin Xu, Irwin King, Michael Lyu, and Rong Jin. Discriminative semi-supervised feature selection via manifold regularization. *IEEE Transactions on Neural Networks*, 21(7):1033–1047, July 2010. ISI(2009)=3.726, SCI(2007)=2.769.
36. Timon C. Du, Feng Li, and Irwin King. Managing knowledge on the web—extracting an ontology from html documents. *Decision Support Systems*, 47:319–331, October 2009. ISI(2009)=1.873, SCI(2007)=1.119.
37. Zenglin Xu, Kaizhu Huang, Jianke Zhu, Irwin King, and Michael R. Lyu. A novel kernel- based maximum a posteriori classification method. *Neural Networks*, 22(7):977–987, 2009. ISI(2009)=2.656, SCI(2007)=1.951.
38. Haiqin Yang, Kaizhu Huang, Irwin King, and Michael R. Lyu. Localized support vector regression for time series prediction. *Neurocomputing*, 72(10-12):2659–2669, June 2009. ISI(2009)=1.234, SCI(2007)=0.865.
39. Haixuan Yang, Michael R. Lyu, and Irwin King. A volume-based heat diffusion classifier. *IEEE Transactions on System, Man, and Cybernetics Part B: Cybernetics*, 39(2):417–430, April 2009. ISI(2009)=2.361, SCI(2007)=1.353.
40. Xiang Peng and Irwin King. A biased minimax probability machine-based scheme for relevance feedback in image retrieval. *Neurocomputing*, 72(7-9):2046–2051, March 2009. ISI(2009)=1.234, SCI(2007)=0.865.
41. Kaizhu Huang, Dalian Zheng, Irwin King, and Michael R. Lyu. Arbitrary norm support vector machines. *Neural Computation*, 21(2):560–582, February 2009. ISI(2009)=2.378, SCI(2007)=2.335.
42. Zenglin Xu, Irwin King, and Michael R. Lyu. Feature selection based on minimum error minimax probability machine. *International Journal of Pattern Recognition and Artificial Intelligence*, 21(8):1279–1292, December 2007. ISI(2009)=0.660, SCI(2004)=0.588.
43. Xiang Peng and Irwin King. Robust BMPM training based on second order cone programming and its application in medical diagnosis tasks. *Neural Networks*, 21(2-3):450–457, March 2008. ISI(2009)=2.656, SCI(2007)=1.951.
44. Kaizhu Huang, Haiqin Yang, Michael R. Lyu, and Irwin King. Maxi-min margin machine: Learning large margin classifiers locally and globally. *IEEE Transactions on Neural Networks*, 19(2):260–272, February 2008. ISI(2009)=3.726, SCI(2007)=2.769.
45. Haixuan Yang, Irwin King, and Michael R. Lyu. The generalized dependency degree between attributes. *Journal of the American Society for Information Science and Technology*, 58(14):2280–2294, 2007. ISI(2009)=1.954, SCI(2004)=2.086.
46. Kaizhu Huang, Haiqin Yang, Irwin King, and Michael R. Lyu. Imbalanced learning with biased minimax probability machine. *IEEE Transactions on System, Man, and Cybernetics Part B*, 36(4):913–923, August 2006. SCI(2004)=1.052.
47. Kaizhu Huang, Haiqin Yang, Irwin King, and Michael R. Lyu. Maximizing sensitivity in medical diagnosis using biased minimax probability machine. *IEEE Transactions on Biomedical Engineering*, 53(5):821–831, May 2006. ISI(2009)=2.496, SCI(2004)=1.815.
48. K.S. Leung, Irwin King, and Y.B. Wong. A probabilistic cooperative-competitive hierarchical model for global optimization. *Journal of Applied Mathematics and Computation*, 175(2):1092–1124, 15 April 2006. ISI(2009)=0.961, SCI(2004)=0.567.
49. Kaizhu Huang, Haiqin Yang, Irwin King, Michael R. Lyu, and Laiwan Chan. Minimum error minimax probability machine. *Journal of Machine Learning Research*, 5:1253–1286, October 2004. IF(2004)=5.952.

50. Irwin King, Cheuk Hang Ng, and Ka Cheung Sia. Distributed content-based visual information retrieval system on peer-to-peer networks. *ACM Transactions on Information Systems*, 22(3):477–501, 2004. IF(2004)=4.097.
51. Huilin Xiong, M.N.S. Swamy, M.O. Ahmad, and Irwin King. Branching competitive learning network: A novel self-creating model. *IEEE Transactions on Neural Networks*, 15(2):417–429, July 2004. IF(2004)=2.178.
52. Irwin King and Jin Zhong. Integrated probability function and its application to content-based image retrieval by relevance feedback. *Pattern Recognition*, 36(9):2177–2186, September 2003. IF(2003)=1.611.
53. Rezaul Alam Chowdhury, M. Kaykobad, and Irwin King. An efficient decoding technique for Huffman codes. *Information Processing Letter*, 81(6):305–308, March 2002. IF(2002)=0.331.
54. Lei Xu and Irwin King. A PCA approach for fast retrieval of structural patterns in attributed graphs. *IEEE Transactions on System, Man, and Cybernetics Part B: Cybernetics*, 31(5):812–817, October 2001. IF(2001)=0.789.
55. L. H. Tung and I. King. A two-stage framework for polygon retrieval. *Multimedia Tools and Applications*, 11(2):235–255, 2000. IF(2000)=0.154.
56. D.A. Adjeroh, M.C. Lee, and I. King. A distance measure for video sequences. *Journal of Computer Vision and Image Understanding*, 75(1):25–45, 1999. IF(1999)=0.938.
57. Siu-hang Or, W. S. Luk, Kin-hong Wong, and Irwin King. An efficient iterative pose estimation algorithm. *Image and Vision Computing*, 16(5):355–364, 1998. IF(1998)=0.431.
58. J. Fiser and I. King. Gabor-wavelet decomposition based filtering of gray-level images for object recognition experiments. *Spatial Vision*, 11(1):117–119, 1997. IF(1998)=0.887.
59. I. King. Report on the computer strategy game programming workshop. *International Computer Chess Association Journal*, pages 113–115, June 1995.
60. I. King and J. Fiser. Generating complementary gray level images with the use of Gabor wavelets for object recognition experiments. *J. Behavior Research Methods, Instruments, and Computers*, 27(4):433–441, 1995.

6.2 Conference Papers

Please refer to DBLP (<https://dblp.org/pid/k/IrwinKing.html>) for a complete list of most updated publications.

Summary of Conference Rankings

1. CCF (<https://www.ccf.org.cn/en/Bulletin/2019-05-13/663884.shtml>)
2. THU Conference Rank: Computer Science (<https://www.aminer.cn/ranks/conf>)

As of 2020/08	Overall	2015-2020	2017-2020	CCF Level	THU Level
CIKM	25	7	4		
WWW	22	7	7	B	NA
IJCNN	21	6	3		
ICONIP	21	5	5		
AAAI	15	7	6	A	A
IJCAI	13	8	6	A	B
SIGIR	8	3	3		
NIPS, NeurIPS	7	1	1	A	A
ACL	6	6	6	A	
Web Intelligence	6	0	0		
ICML	5	1	1	A	A
UAI	5	4	3		
CVPR	5	4	4	A	A
WSDM	5	1	1		
ICDM	4	1	1		
SLT	4	0	0		
RecSys	4	0	0		
ADMA	3	1	1		
NAACL-HLT	3	3	3		
ICME	3	1	1		

1. Haoli Bai, Jiayang Wu, Irwin King, Michael R. Lyu: Few Shot Network Compression via Cross Distillation. AAAI 2020: 3203-3210
2. Wenxiang Jiao, Michael R. Lyu, Irwin King: Real-Time Emotion Recognition via Attention Gated Hierarchical Memory Network. AAAI 2020: 8002-8009
3. Jichuan Zeng, Xi Victoria Lin, Steven C. H. Hoi, Richard Socher, Caiming Xiong, Michael R. Lyu, Irwin King: Photon: A Robust Cross-Domain Text-to-SQL System. ACL (demo) 2020: 204-214
4. Yifan Gao, Chien-Sheng Wu, Shafiq R. Joty, Caiming Xiong, Richard Socher, Irwin King, Michael R. Lyu, Steven C. H. Hoi: Explicit Memory Tracker with Coarse-to-Fine Reasoning for Conversational Machine Reading. ACL 2020: 935-945
5. Wang Chen, Hou Pong Chan, Piji Li, Irwin King: Exclusive Hierarchical Decoding for Deep Keyphrase Generation. ACL 2020: 1095-1105
6. Weibin Wu, Yuxin Su, Xixian Chen, Shenglin Zhao, Irwin King, Michael R. Lyu, Yu-Wing Tai: Boosting the Transferability of Adversarial Samples via Attention. CVPR 2020: 1158-1167
7. Pengpeng Liu, Irwin King, Michael R. Lyu, Jia Xu: Flow2Stereo: Effective Self-Supervised Learning of Optical Flow and Stereo Matching. CVPR 2020: 6647-6656
8. Weibin Wu, Yuxin Su, Xixian Chen, Shenglin Zhao, Irwin King, Michael R. Lyu, Yu-Wing Tai: Towards Global Explanations of Convolutional Neural Networks With Concept Attribution. CVPR 2020: 8649-8658
9. Yankai Chen, Jie Zhang, Yixiang Fang, Xin Cao, Irwin King: Efficient Community Search over Large Directed Graph: An Augmented Index-based Approach. IJCAI 2020: 3544-3550

10. Hou Pong Chan, Wang Chen, Irwin King: A Unified Dual-view Model for Review Summarization and Sentiment Classification with Inconsistency Loss. SIGIR 2020: 1191-1200
11. Jichuan Zeng, Jing Li, Yulan He, Cuiyun Gao, Michael R. Lyu, Irwin King: What Changed Your Mind: The Roles of Dynamic Topics and Discourse in Argumentation Process. WWW 2020: 1502-1513
12. Xinyu Fu, Jiani Zhang, Ziqiao Meng, Irwin King: MAGNN: Metapath Aggregated Graph Neural Network for Heterogeneous Graph Embedding. WWW 2020: 2331-2341
13. Wang Chen, Yifan Gao, Jiani Zhang, Irwin King, Michael R. Lyu: Title-Guided Encoding for Keyphrase Generation. AAAI 2019: 6268-6275
14. Yifan Gao, Lidong Bing, Piji Li, Irwin King, Michael R. Lyu: Generating Distractors for Reading Comprehension Questions from Real Examinations. AAAI 2019: 6423-6430
15. Pengpeng Liu, Irwin King, Michael R. Lyu, Jia Xu: DDFlow: Learning Optical Flow with Unlabeled Data Distillation. AAAI 2019: 8770-8777
16. Hou Pong Chan, Wang Chen, Lu Wang, Irwin King: Neural Keyphrase Generation via Reinforcement Learning with Adaptive Rewards. ACL (1) 2019: 2163-2174
17. Yue Wang, Jing Li, Hou Pong Chan, Irwin King, Michael R. Lyu, Shuming Shi: Topic-Aware Neural Keyphrase Generation for Social Media Language. ACL (1) 2019: 2516-2526
18. Yifan Gao, Piji Li, Irwin King, Michael R. Lyu: Interconnected Question Generation with Coreference Alignment and Conversation Flow Modeling. ACL (1) 2019: 4853-4862
19. Feng Xia, Huan Liu, Irwin King, Kuansan Wang: BigScholar 2019: The 6th Workshop on Big Scholarly Data. CIKM 2019: 3003-3004
20. Pengpeng Liu, Michael R. Lyu, Irwin King, Jia Xu: SelfFlow: Self-Supervised Learning of Optical Flow. CVPR 2019: 4571-4580
21. Weibin Wu, Hui Xu, Sanqiang Zhong, Michael R. Lyu, Irwin King: Deep Validation: Toward Detecting Real-World Corner Cases for Deep Neural Networks. DSN 2019: 125-137
22. Jingjing Li, Yifan Gao, Lidong Bing, Irwin King, Michael R. Lyu: Improving Question Generation With to the Point Context. EMNLP/IJCNLP (1) 2019: 3214-3224
23. Cuiyun Gao, Wujie Zheng, Yuetang Deng, David Lo, Jichuan Zeng, Michael R. Lyu, Irwin King: Emerging app issue identification from user feedback: experience on WeChat. ICSE (SEIP) 2019: 279-288
24. Yuxin Su, Shenglin Zhao, Xixian Chen, Irwin King, Michael R. Lyu: Parallel Wasserstein Generative Adversarial Nets with Multiple Discriminators. IJCAI 2019: 3483-3489
25. Jiani Zhang, Xingjian Shi, Shenglin Zhao, Irwin King: STAR-GCN: Stacked and Reconstructed Graph Convolutional Networks for Recommender Systems. IJCAI 2019: 4264-4270
26. Yifan Gao, Lidong Bing, Wang Chen, Michael R. Lyu, Irwin King: Difficulty Controllable Generation of Reading Comprehension Questions. IJCAI 2019: 4968-4974
27. Yaoman Li, Irwin King: Architecture Search for Image Inpainting. ISNN (1) 2019: 106-115
28. Cuiyun Gao, Jichuan Zeng, Xin Xia, David Lo, Michael R. Lyu, Irwin King: Automating App Review Response Generation. ASE 2019: 163-175
29. Wenxiang Jiao, Haiqin Yang, Irwin King, Michael R. Lyu: HiGRU: Hierarchical Gated Recurrent Units for Utterance-Level Emotion Recognition. NAACL-HLT (1) 2019: 397-406
30. Yue Wang, Jing Li, Irwin King, Michael R. Lyu, Shuming Shi: Microblog Hashtag Generation via Encoding Conversation Contexts. NAACL-HLT (1) 2019: 1624-1633
31. Wang Chen, Hou Pong Chan, Piji Li, Lidong Bing, Irwin King: An Integrated Approach for Keyphrase Generation via Exploring the Power of Retrieval and Extraction. NAACL-HLT (1) 2019: 2846-2856
32. Haoli Bai, Zhuangbin Chen, Michael R. Lyu, Irwin King, Zenglin Xu: Neural Relational Topic Models for Scientific Article Analysis. CIKM 2018: 27-36
33. Yuxin Su, Michael R. Lyu, Irwin King: Communication-Efficient Distributed Deep Metric Learning with Hybrid Synchronization. CIKM 2018: 1463-1472
34. Jichuan Zeng, Jing Li, Yan Song, Cuiyun Gao, Michael R. Lyu, Irwin King: Topic Memory Networks for Short Text Classification. EMNLP 2018: 3120-3131
35. Hou Pong Chan, Irwin King: Thread Popularity Prediction and Tracking with a Permutation-invariant Model. EMNLP 2018: 3392-3401
36. Shenglin Zhao, Xixian Chen, Irwin King, Michael R. Lyu: Personalized Sequential Check-in Prediction: Beyond Geographical and Temporal Contexts. ICME 2018: 1-6

37. Cuiyun Gao, Jichuan Zeng, Michael R. Lyu, Irwin King: Online app review analysis for identifying emerging issues. ICSE 2018: 48-58
38. Xiaotian Yu, Irwin King, Michael R. Lyu, Tianbao Yang: A Generic Approach for Accelerating Stochastic Zeroth-Order Convex Optimization. IJCAI 2018: 3040-3046
39. Jian Li, Yue Wang, Michael R. Lyu, Irwin King: Code Completion with Neural Attention and Pointer Networks. IJCAI 2018: 4159-4165
40. Cuiyun Gao, Jichuan Zeng, Federica Sarro, Michael R. Lyu, Irwin King: Exploring the effects of ad schemes on the performance cost of mobile phones. A-Mobile@ASE 2018: 13-18
41. Han Shao, Xiaotian Yu, Irwin King, Michael R. Lyu: Almost Optimal Algorithms for Linear Stochastic Bandits with Heavy-Tailed Payoffs. NeurIPS 2018: 8430-8439
42. Cuiyun Gao, Jichuan Zeng, David Lo, Chin-Yew Lin, Michael R. Lyu, Irwin King: INFAR: insight extraction from app reviews. ESEC/SIGSOFT FSE 2018: 904-907
43. Jiani Zhang, Xingjian Shi, Junyuan Xie, Hao Ma, Irwin King, Dit-Yan Yeung: GaAN: Gated Attention Networks for Learning on Large and Spatiotemporal Graphs. UAI 2018: 339-349
44. Xiaotian Yu, Han Shao, Michael R. Lyu, Irwin King: Pure Exploration of Multi-Armed Bandits with Heavy-Tailed Payoffs. UAI 2018: 937-946
45. Xiaotian Yu, Michael R. Lyu, Irwin King: CBRAP: Contextual Bandits with RANdom Projection. AAAI 2017: 2859-2866
46. Xingyu Niu, Hongyi Zhang, Michael R. Lyu, Irwin King: From Mutual Friends to Overlapping Community Detection: A Non-negative Matrix Factorization Approach. ADMA 2017: 180-194
47. Jiajun Cheng, Shenglin Zhao, Jiani Zhang, Irwin King, Xin Zhang, Hui Wang: Aspect-level Sentiment Classification with HEAT (HiErarchical ATtention) Network. CIKM 2017: 97-106
48. Sheng Zhang, Shenglin Zhao, Mingxuan Yuan, Jia Zeng, Jianguo Yao, Michael R. Lyu, Irwin King: Traffic Prediction Based Power Saving in Cellular Networks: A Machine Learning Method. SIGSPATIAL/GIS 2017: 29:1-29:10
49. Xiaotian Yu, Irwin King, Michael R. Lyu: Risk Control of Best Arm Identification in Multi-armed Bandits via Successive Rejects. ICDM 2017: 1147-1152
50. Xixian Chen, Michael R. Lyu, Irwin King: Toward Efficient and Accurate Covariance Matrix Estimation on Compressed Data. ICML 2017: 767-776
51. Shenglin Zhao, Irwin King, Michael R. Lyu: Geo-Pairwise Ranking Matrix Factorization Model for Point-of-Interest Recommendation. ICONIP (5) 2017: 368-377
52. Guangxi Li, Zenglin Xu, Linnan Wang, Jinmian Ye, Irwin King, Michael R. Lyu: Simple and efficient parallelization for probabilistic temporal tensor factorization. IJCNN 2017: 1-8
53. Tong Zhao, Julian J. McAuley, Mengya Li, Irwin King: Improving recommendation accuracy using networks of substitutable and complementary products. IJCNN 2017: 3649-3655
54. Tong Zhao, Mandy Hu, Razieh Rahimi, Irwin King: It's about time! Modeling customer behaviors as the secretary problem in daily deal websites. IJCNN 2017: 3670-3679
55. Yuxin Su, Irwin King, Michael R. Lyu: Learning to Rank Using Localized Geometric Mean Metrics. SIGIR 2017: 45-54
56. Shenglin Zhao, Irwin King, Michael R. Lyu, Jia Zeng, Mingxuan Yuan: Mining Business Opportunities from Location-based Social Networks. SIGIR 2017: 1037-1040
57. Xixian Chen, Irwin King, Michael R. Lyu: FROSH: FasteR Online Sketching Hashing. UAI 2017
58. Shenglin Zhao, Tong Zhao, Irwin King, Michael R. Lyu: Geo-Teaser: Geo-Temporal Sequential Embedding Rank for Point-of-interest Recommendation. WWW (Companion Volume) 2017: 153-162
59. Wei Wang, Jiaying Liu, Feng Xia, Irwin King, Hanghang Tong: Shifu: Deep Learning Based Advisor-advisee Relationship Mining in Scholarly Big Data. WWW (Companion Volume) 2017: 303-310
60. Hou Pong Chan, Irwin King: Leveraging Social Connections to Improve Peer Assessment in MOOCs. WWW (Companion Volume) 2017: 341-349
61. Jiani Zhang, Xingjian Shi, Irwin King, Dit-Yan Yeung: Dynamic Key-Value Memory Networks for Knowledge Tracing. WWW 2017: 765-774
62. Shenglin Zhao, Tong Zhao, Haiqin Yang, Michael R. Lyu, and Irwin King. STELLAR: Spatial-Temporal Latent Ranking for Successive Point-of-Interest Recommendation In Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence, February 12-17, 2016, Phoenix, Arizona, USA., pages 315–322, 2016.

63. Tong Zhao, and Irwin King. Constructing Reliable Gradient Exploration for Online Learning to Rank. In Proceedings of the 25th ACM International on Conference on Information and Knowledge Management, CIKM 2016, Indianapolis, IN, USA, October 24-28, 2016, pages 1643–1652, 2016.
64. Tong Zhao, and Irwin King. Locality-Sensitive Linear Bandit Model for Online Social Recommendation. In Neural Information Processing - 23rd International Conference, ICONIP 2016, Kyoto, Japan, October 16-21, 2016, Proceedings, Part I, pages 80–90, 2016.
65. Man-Ching Yuen, Irwin King, and Kwong-Sak Leung. An Online-Updating Approach on Task Recommendation in Crowdsourcing Systems. In Neural Information Processing - 23rd International Conference, ICONIP 2016, Kyoto, Japan, October 16-21, 2016, Proceedings, Part I, pages 91–101, 2016.
66. Jiani Zhang, and Irwin King. Topological Order Discovery via Deep Knowledge Tracing. In Neural Information Processing - 23rd International Conference, ICONIP 2016, Kyoto, Japan, October 16-21, 2016, Proceedings, Part IV, pages 112–119, 2016.
67. Shenglin Zhao, Michael R. Lyu, and Irwin King. Aggregated Temporal Tensor Factorization Model for Point-of-interest Recommendation. In Neural Information Processing - 23rd International Conference, ICONIP 2016, Kyoto, Japan, October 16-21, 2016, Proceedings, Part III, pages 450–458, 2016.
68. Hongyi Zhang, Tong Zhao, Irwin King, and Michael R. Lyu. Modeling the Homophily Effect between Links and Communities for Overlapping Community Detection. In Proceedings of the Twenty-Fifth International Joint Conference on Artificial Intelligence, IJCAI 2016, New York, NY, USA, 9-15 July 2016, pages 3938–3944, 2016.
69. Yuxin Su, Haiqin Yang, Irwin King, and Michael R. Lyu. Distributed Information-Theoretic Metric Learning in Apache Spark. In 2016 International Joint Conference on Neural Networks, IJCNN 2016, Vancouver, BC, Canada, July 24-29, 2016, pages 3306–3313, 2016.
70. Xiaotian Yu, Haiqin Yang, Irwin King, and Michael R. Lyu. Online non-negative dictionary learning via moment information for sparse Poisson coding. In 2016 International Joint Conference on Neural Networks, IJCNN 2016, Vancouver, BC, Canada, July 24-29, 2016, pages 5094–5101, 2016.
71. Hou Pong Chan, Tong Zhao, and Irwin King. Trust-aware Peer Assessment using Multi-armed Bandit Algorithms. In Proceedings of the 25th International Conference on World Wide Web, WWW 2016, Montreal, Canada, April 11-15, 2016, Companion Volume, pages 889–903, 2016.
72. Panagiotis Andriotis, Theo Tryfonas, George C. Oikonomou, and Irwin King. A framework for describing multimedia circulation in a smartphone ecosystem. In Advances in Digital Forensics XI - 11th IFIP WG 11.9 International Conference, Orlando, FL, USA, January 26-28, 2015, Revised Selected Papers, pages 251–267, 2015.
73. Shouyuan Chen, Yang Liu, Michael R. Lyu, Irwin King, and Shengyu Zhang. Fast Relative-Error Approximation Algorithm for Ridge Regression. In Proceedings of the Thirty-First Conference on Uncertainty in Artificial Intelligence, UAI 2015, July 12-16, 2015, Amsterdam, The Netherlands, pages 201–210, 2015.
74. Xixian Chen, Haiqin Yang, Irwin King, and Michael R. Lyu. Training-efficient feature map for shift-invariant kernels. In Proceedings of the Twenty-Fourth International Joint Conference on Artificial Intelligence, IJCAI 2015, Buenos Aires, Argentina, July 25-31, 2015, pages 3395–3401, 2015.
75. Junjie Hu, Haiqin Yang, Irwin King, Michael R. Lyu, and Anthony Man-Cho So. Kernelized online imbalanced learning with fixed budgets. In Proceedings of the Twenty-Ninth AAAI Conference on Artificial Intelligence, January 25-30, 2015, Austin, Texas, USA., pages 2666–2672, 2015.
76. Kaizhu Huang, Haiqin Yang, Irwin King, and Michael R. Lyu. Wsdm’15 workshop summary / scalable data analytics: Theory and applications. In Proceedings of the Eighth ACM International Conference on Web Search and Data Mining, WSDM 2015, Shanghai, China, February 2-6, 2015, pages 425–426, 2015.
77. Yuanyuan Man, Mantian Hu, and Irwin King. Group buying in social coupon: Myths or facts. In 2015 International Joint Conference on Neural Networks, IJCNN 2015, Killarney, Ireland, July 12-17, 2015, pages 1–8, 2015.
78. Hongyi Zhang, Irwin King, and Michael R. Lyu. Incorporating implicit link preference into overlapping community detection. In Proceedings of the Twenty-Ninth AAAI Conference on Artificial Intelligence, January 25-30, 2015, Austin, Texas, USA., pages 396–402, 2015.

79. Hongyi Zhang, Michael R. Lyu, and Irwin King. Exploiting k-degree locality to improve overlapping community detection. In Proceedings of the Twenty-Fourth International Joint Conference on Artificial Intelligence, IJCAI 2015, Buenos Aires, Argentina, July 25-31, 2015, pages 2394–2400, 2015.
80. Tong Zhao, Julian J. McAuley, and Irwin King. Improving latent factor models via personalized feature projection for one class recommendation. In Proceedings of the 24th ACM International on Conference on Information and Knowledge Management, CIKM 2015, Melbourne, VIC, Australia, October 19 - 23, 2015, pages 821–830, 2015.
81. Tong Zhao, H. Vicky Zhao, and Irwin King. Exploiting game theoretic analysis for link recommendation in social networks. In Proceedings of the 24th ACM International on Conference on Information and Knowledge Management, CIKM 2015, Melbourne, VIC, Australia, October 19 - 23, 2015, pages 851–860, 2015.
82. Shouyuan Chen, Tian Lin, Irwin King, Michael R. Lyu, and Wei Chen. Combinatorial pure exploration of multi-armed bandits. In Advances in Neural Information Processing Systems 27: Annual Conference on Neural Information Processing Systems 2014, December 8-13 2014, Montreal, Quebec, Canada, pages 379–387, 2014.
83. Chen Cheng, Fen Xia, Tong Zhang, Irwin King, and Michael R. Lyu. Gradient boosting factorization machines. In Eighth ACM Conference on Recommender Systems, RecSys '14, Foster City, Silicon Valley, CA, USA - October 06 - 10, 2014, pages 265–272, 2014.
84. Tak Pang Lau, Shuai Wang, Yuanyuan Man, Chi Fai Yuen, and Irwin King. Language technologies for enhancement of teaching and learning in writing. In 23rd International World Wide Web Conference, WWW '14, Seoul, Republic of Korea, April 7-11, 2014, Companion Volume, pages 1097–1102, 2014.
85. Guang Ling, Michael R. Lyu, and Irwin King. Ratings meet reviews, a combined approach to recommend. In Eighth ACM Conference on Recommender Systems, RecSys '14, Foster City, Silicon Valley, CA, USA - October 06 - 10, 2014, pages 105–112, 2014.
86. Hao Ma, Irwin King, and Michael R. Lyu. Social recommendation in dynamic networks. In Encyclopedia of Social Network Analysis and Mining, pages 1923–1929. 2014.
87. Yuanyuan Man, Shuai Wang, Tian-Yu Zhang, T. J. Wong, and Irwin King. Corporate leaders analytics and network system (CLANS): constructing and mining social networks among corporations and business elites in china. In Neural Information Processing - 21st International Conference, ICONIP 2014, Kuching, Malaysia, November 3-6, 2014. Proceedings, Part I, pages 610–618, 2014.
88. Razieh Rahimi, Azadeh Shakery, and Irwin King. Axiomatic analysis of cross-language information retrieval. In Proceedings of the 23rd ACM International Conference on Conference on Information and Knowledge Management, CIKM 2014, Shanghai, China, November 3-7, 2014, pages 1875–1878, 2014.
89. Haiqin Yang, Zenglin Xu, Irwin King, and Michael R. Lyu. Non-monotonic feature selection for regression. In Neural Information Processing - 21st International Conference, ICONIP 2014, Kuching, Malaysia, November 3-6, 2014. Proceedings, Part II, pages 44–51, 2014.
90. Philip S. Yu, Masaru Kitsuregawa, Hiroshi Motoda, Bart Goethals, Minyi Guo, Longbing Cao, George Karypis, Irwin King, and Wei Wang. Welcome from DSAA 2014 chairs. In International Conference on Data Science and Advanced Analytics, DSAA 2014, Shanghai, China, October 30 - November 1, 2014, pages 9–10, 2014.
91. Zhigang Zeng, Yangmin Li, and Irwin King, editors. Advances in Neural Networks - ISNN 2014 - 11th International Symposium on Neural Networks, ISNN 2014, Hong Kong and Macao, China, November 28- December 1, 2014. Proceedings, volume 8866 of Lecture Notes in Computer Science. Springer, 2014.
92. Tong Zhao, Junjie Hu, Pinjia He, Hang Fan, Michael R. Lyu, and Irwin King. Exploiting homophily-based implicit social network to improve recommendation performance. In 2014 International Joint Conference on Neural Networks, IJCNN 2014, Beijing, China, July 6-11, 2014, pages 2539–2547, 2014.
93. Tong Zhao, Julian J. McAuley, and Irwin King. Leveraging social connections to improve personalized ranking for collaborative filtering. In Proceedings of the 23rd ACM International Conference on Conference on Information and Knowledge Management, CIKM 2014, Shanghai, China, November 3-7, 2014, pages 261–270, 2014.

94. Leslie Carr, Alberto H. F. Laender, Bernadette Farias L'oscio, Irwin King, Marcus Fontoura, Denny Vrandecic, Lora Aroyo, Jos'e Palazzo M. de Oliveira, Fernanda Lima, and Erik Wilde, editors. 22nd International World Wide Web Conference, WWW '13, Rio de Janeiro, Brazil, May 13-17, 2013, Companion Volume. International World Wide Web Conferences Steering Committee / ACM, 2013.
95. Shouyuan Chen, Michael R. Lyu, Irwin King, and Zenglin Xu. Exact and stable recovery of pairwise interaction tensors. In *Advances in Neural Information Processing Systems 26: 27th Annual Conference on Neural Information Processing Systems 2013. Proceedings of a meeting held December 5-8, 2013, Lake Tahoe, Nevada, United States.*, pages 1691–1699, 2013.
96. Chen Cheng, Haiqin Yang, Michael R. Lyu, and Irwin King. Where you like to go next: Successive point-of-interest recommendation. In *IJCAI 2013, Proceedings of the 23rd International Joint Conference on Artificial Intelligence, Beijing, China, August 3-9, 2013*, 2013.
97. Guang Ling, Irwin King, and Michael R. Lyu. A unified framework for reputation estimation in online rating systems. In *IJCAI 2013, Proceedings of the 23rd International Joint Conference on Artificial Intelligence, Beijing, China, August 3-9, 2013*, 2013.
98. Jianping Shi, Naiyan Wang, Yang Xia, Dit-Yan Yeung, Irwin King, and Jiaya Jia. SCMF: sparse covariance matrix factorization for collaborative filtering. In *IJCAI 2013, Proceedings of the 23rd International Joint Conference on Artificial Intelligence, Beijing, China, August 3-9, 2013*, 2013.
99. Chenxia Wu, Haiqin Yang, Jianke Zhu, Jiemi Zhang, Irwin King, and Michael R. Lyu. Sparse poisson coding for high dimensional document clustering. In *Proceedings of the 2013 IEEE International Conference on Big Data, 6-9 October 2013, Santa Clara, CA, USA*, pages 512–517, 2013.
100. Qiang Yang, Irwin King, Qing Li, Pearl Pu, and George Karypis, editors. *Seventh ACM Conference on Recommender Systems, RecSys '13, Hong Kong, China, October 12-16, 2013*. ACM, 2013.
101. Shenglin Zhao, Irwin King, and Michael R. Lyu. Capturing geographical influence in POI recommendations. In *Neural Information Processing - 20th International Conference, ICONIP 2013, Daegu, Korea, November 3-7, 2013. Proceedings, Part II*, pages 530–537, 2013.
102. Priyanka Garg, Irwin King, and Michael R. Lyu. Are you a social conformer? In *Neural Information Processing - 19th International Conference, ICONIP 2012, Doha, Qatar, November 12-15, 2012, Proceedings, Part III*, pages 694–701, 2012.
103. Priyanka Garg, Irwin King, and Michael R. Lyu. Information propagation in social rating networks. In *21st ACM International Conference on Information and Knowledge Management, CIKM'12, Maui, HI, USA, October 29 - November 02, 2012*, pages 2279–2282, 2012.
104. Xin Xin, Irwin King, Ritesh Agrawal, Michael R. Lyu, and Heyan Huang. Do ads compete or collaborate?: designing click models with full relationship incorporated. In *21st ACM International Conference on Information and Knowledge Management, CIKM'12, Maui, HI, USA, October 29 - November 02, 2012*, pages 1839–1843, 2012.
105. Man-Ching Yuen, Irwin King, and Kwong-Sak Leung. TaskRec: Probabilistic matrix factorization in task recommendation in crowdsourcing systems. In *Neural Information Processing - 19th International Conference, ICONIP 2012, Doha, Qatar, November 12-15, 2012, Proceedings, Part II*, pages 516–525, 2012.
106. Tom Chao Zhou, Xiance Si, Edward Y. Chang, Irwin King, and Michael R. Lyu. A data-driven approach to question subjectivity identification in community question answering. In *Proceedings of the 26th AAAI Conference on Artificial Intelligence (AAAI2012), Toronto, Ontario, Canada, July 22-26, 2012*.
107. Chen Cheng, Haiqin Yang, Irwin King, and Michael R. Lyu. Fused matrix factorization with geographical and social influence in location-based social networks. In *Proceedings of the 26th AAAI Conference on Artificial Intelligence (AAAI2012), Toronto, Ontario, Canada, July 22-26, 2012*.
108. Hongbo Deng, Jiawei Han, Michael R. Lyu, and Irwin King. Modeling and exploiting heterogeneous bibliographic networks for expertise ranking. In *Proceeding of the Joint Conference on Digital Library (JCDL2012)*, pages 71–80, Washington D. C. USA, June 2012.
109. Guang Ling, Haiqin Yang, Michael R. Lyu, and Irwin King. Response aware model-based collaborative filtering. In *The Proceedings to the Uncertainty in AI (UAI2012)*, pages 501–510, Catalina Island, CA, USA, 2012.
110. Baichuan Li, Michael R. Lyu, and Irwin King. Communities of yahoo! answers and baidu zhidao: Complementing or competing? In *Proceedings of the 2012 International Joint Conference on Neural Networks (IJCNN2012), Brisbane, Queensland, Australia, June 10- 15, 2012*.

111. Guang Ling, Haiqin Yang, Irwin King, and Michael R. Lyu. Online learning for collaborative filtering. In Proceedings of the 2012 International Joint Conference on Neural Networks (IJCNN2012), Brisbane, Queensland, Australia, June 10-15, 2012.
112. Baichuan Li, Tan Jin, Michael R. Lyu, Irwin King, and Barley Mak. Analyzing and predicting question quality in community question answering services. In Proceedings of the 1st Workshop on Community Question Answering on the Web (CQA 2012), in conjunction with WWW, Lyon, France, April 16-20, 2012.
113. Tom Chao Zhou, Michael R. Lyu, and Irwin King. A classification-based approach to question routing in community question answering. In Proceedings of the 1st Workshop on Community Question Answering on the Web (CQA 2012), in conjunction with WWW, Lyon, France, April 16-20, 2012.
114. Ritesh Agrawal, Xiaofeng Yu, Irwin King, and Remi Zajac. Enrichment and reductionism: Two approaches for web query classification. In Bao-Liang Lu, Liqing Zhang, and James Kwok, editors, Neural Information Processing, volume 7064 of Lecture Notes in Computer Science, pages 148–157. Springer, 2011.
115. Bo Xu, Kaizhu Huang, Irwin King, Cheng-Lin Liu, Jun Sun, and Naoi Satoshi. Graphical lasso quadratic discriminant function for character recognition. In Bao-Liang Lu, Liqing Zhang, and James Kwok, editors, Neural Information Processing, volume 7064 of Lecture Notes in Computer Science, pages 747–755. Springer, 2011.
116. Wujie Zheng, Hao Ma, Michael R. Lyu, Tao Xie, and Irwin King. Mining test oracles of web search engines. In Alexander et al. [?], pages 408–411.
117. Xiaofeng Yu, Irwin King, and Michael R. Lyu. Towards a top-down and bottom-up bidirectional approach to joint information extraction. In Proceedings to the ACM 20th Conference on Information and Knowledge Management (CIKM2011), Glasgow, Scotland, October 24-28, 2011. ACM. #1248, regular paper, 917 submissions, 15posters.
118. Haiqin Yang, Irwin King, Shenghuo Zhu, and Michael R. Lyu. Can irrelevant data help semi-supervised learning, why and how? In Proceedings to the ACM 20th Conference on Information and Knowledge Management (CIKM2011), Glasgow, Scotland, October 24-28, 2011. ACM. #552, regular paper, 917 submissions, 15posters.
119. Baichuan Li, Irwin King, Edward Chang, Michael R. Lyu, and Xiance Si. Question identification on twitter. In Proceedings to the ACM 20th Conference on Information and Knowledge Management (CIKM2011), Glasgow, Scotland, October 24-28, 2011. ACM. Poster #9, regular paper, 917 submissions, 15% regular and 20% short and posters.
120. Baichuan Li, Irwin King, and Michael R. Lyu. Question routing in community question answering: Putting category in its place. In Proceedings to the ACM 20th Conference on Information and Knowledge Management (CIKM2011), Glasgow, Scotland, October 24-28, 2011. ACM. Poster #333, regular paper, 917 submissions, 15% regular and 20% short and posters.
121. Man-Ching Yuen, Irwin King, and Kwong-Sak Leung. A survey of crowdsourcing systems. In Proceedings of The 3rd IEEE International Conference on Social Computing (SocialCom-11), 9-11 October 2011, MIT, Boston, U.S.A., pages 766–773, 2011.
122. Man-Ching Yuen, Irwin King, and Kwong-Sak Leung. Task matching in crowdsourcing. In Proceedings of The 4th IEEE International Conference on Cyber, Physical and Social Computing (IEEE CPSCom 2011), 19-22 October 2011, Dalian, China, pages 409–412, 2011.
123. Tom Chao Zhou, Chin-Yew Lin, Irwin King, Michael R. Lyu, Young-In Song, and Yunbo Cao. Learning to suggest questions in online forums. In Burgard and Roth [?].
124. Hao Ma, Chao Liu, Irwin King, and Michael R. Lyu. Probabilistic factor models for web site recommendation. In Tat-Seng Chua Ricardo Baeza-Yates and W. Bruce Croft, editors, Proceedings to the 34th Annual ACM SIGIR Conference (SIGIR2011), pages 265–274, Beijing, China, July 24-28, 2011. ACM Press.
125. Dingyan Wang, Irwin King, and Kwong-Sak Leung. “Like Attracts Like!”— A Social Recommendation Framework Through Label Propagation. In SIGIR2011 Workshop on Social Web Search and Mining: Content Analysis Under Crisis, Beijing, China, 2011.
126. Hao Ma, Dengyong Zhou, Chao Liu, Michael R. Lyu, and Irwin King. Recommender systems with social regularization. In Proceedings to the Fourth ACM International Conference on Web Search and Data Mining (WSDM2011), Hong Kong, China, February 9-12, 2011.

127. Xin Xin, Michael R. Lyu, and Irwin King. Cmap: Effective fusion of quality and relevance for multi-criteria recommendation. In Proceedings to the Fourth ACM International Conference on Web Search and Data Mining (WSDM2011), Hong Kong, China, February 9-12, 2011.
128. Mingzhen Mo and Irwin King. Exploit of online social networks with community-based graph semi-supervised learning. In Proceedings to the 17th International Conference on Neural Information Processing (ICONIP2010), pages 397–404, November 22-25, 2010.
129. Dingyan Wang and Irwin King. An enhanced semi-supervised recommendation model based on Green’s function. In Proceedings to the 17th International Conference on Neural Information Processing (ICONIP2010), pages 669–678, November 22-25, 2010.
130. Wei Wei and Irwin King. Measuring credibility of users in an e-learning social network. In Proceedings to the 5th International Conference on Computer Science & Education, Hefei, Anhui, P.R. China, August 24-27, 2010. <http://iccse.xmu.edu.cn/2010/>.
131. Zhaojun Yang, Baichuan Li, Yi Zhu, Irwin King, Gina Levow, and Helen Meng. Collection of user judgments on spoken dialog system with crowdsourcing. In Proceedings to the IEEE Workshop on Spoken Language Technology (SLT2010), Berkeley, CA, USA, December 12-15, 2010. IEEE Computer Society Press. #1033.
132. Zhaojun Yang, Yi Zhu, Baichuan Li, Irwin King, Gina Levow, and Helen Meng. Collaborative filtering model for user satisfaction prediction in spoken dialog system evaluation. In Proceedings to the IEEE Workshop on Spoken Language Technology (SLT2010), Berkeley, CA, USA, December 12-15, 2010. IEEE Computer Society Press. #1223.
133. Yi Zhu, Zhaojun Yang, Baichuan Li, Helen Meng, Gina Levow, and Irwin King. Using finite state machines for evaluating spoken dialog systems. In Proceedings to the IEEE Workshop on Spoken Language Technology (SLT2010), Berkeley, CA, USA, December 12-15, 2010. IEEE Computer Society Press. #1222.
134. Baichuan Li, Zhaojun Yang, Yi Zhu, Helen Meng, Gina Levow, and Irwin King. Predicting user evaluations of spoken dialog systems using semi-supervised learning. In Proceedings to the IEEE Workshop on Spoken Language Technology (SLT2010), Berkeley, CA, USA, December 12-15, 2010. IEEE Computer Society Press. #1047.
135. Haiqin Yang, Irwin King, and Michael R. Lyu. Online learning for multi-task feature selection. In Proceedings to the ACM 19th Conference on Information and Knowledge Management (CIKM2010), Toronto, Canada, October 26-30, 2010. ACM.
136. Mingzhen Mo, Dingyan Wang, Baichuan Li, Dan Hong, and Irwin King. Attacking online social networks with semi-supervised learning. In Proceedings of the 2010 International Joint Conference on Neural Networks (IJCNN2010), Barcelona, Spain, July 18-23, 2010.
137. Haiqin Yang, Irwin King, and Michael R. Lyu. Multi-task learning in one-class classification. In Proceedings of the 2010 International Joint Conference on Neural Networks (IJCNN2010), Barcelona, Spain, July 18-23, 2010.
138. Baichuan Li and Irwin King. Routing questions to appropriate answerers in community question answering services. In Proceedings to the ACM 19th Conference on Information and Knowledge Management (CIKM2010), Toronto, Canada, October 26-30, 2010. ACM.
139. Hao Ma, Michael R. Lyu, and Irwin King. Diversifying query suggestion results. In Proceedings of the Twenty-Fourth AAAI Conference on Artificial Intelligence (AAAI2010), Atlanta, USA, July 11-15, 2010. #XXX, 264/982 (26.9%).
140. Zenglin Xu, Rong Jin, Shenghuo Zhu, Michael R. Lyu, and Irwin King. Smooth optimization for effective multiple kernel learning. In Proceedings of the Twenty-Fourth AAAI Conference on Artificial Intelligence (AAAI2010), Atlanta, USA, July 11-15, 2010. #789, 264/982 (26.9%).
141. Tom Chao Zhou, Hao Ma, Irwin King, and Michael R. Lyu. Userrec: A user recommendation framework in social tagging systems. In Proceedings of the Twenty-Fourth AAAI Conference on Artificial Intelligence (AAAI2010), Atlanta, USA, July 11-15, 2010. #79, 264/982 (26.9%).
142. Haiqin Yang and Irwin King. Ensemble learning for imbalanced e-commerce transaction anomaly classification. In C.S. Leung, M. Lee, and J.H. Chan, editors, Advances in Neuro-Information Processing: 16th International Conference on Neural Information Processing (ICONIP2009), volume I of LNCS #5863, pages 866–874, Bangkok, Thailand, December 1-5, 2009. Springer-Verlag Berlin Heidelberg.
143. Zhirong Yang, Irwin King, Zenglin Xu, and Erkki Oja. Heavy-tailed symmetric stochastic neighbor embedding. In Y. Bengio, D. Schuurmans, J. Lafferty, C. K. I. Williams, and A. Culotta,

- editors, *Advances in Neural Information Processing System 22 (NIPS2009)*, Spotlight Poster, pages 2169–2177, Cambridge, MA, December 7-10, 2009. MIT Press. # 664, 263 / 1105 = 23.8%, oral presentation 87/ 1105 = 7.87 %.
144. Zenglin Xu, Rong Jin, Jianke Zhu, Irwin King, Michael Lyu, and Zhirong Yang. Adaptive regularization for transductive support vector machine. In Y. Bengio, D. Schuurmans, J. Lafferty, C. K. I. Williams, and A. Culotta, editors, *Advances in Neural Information Processing System 22 (NIPS2009)*, Spotlight Poster, pages 2125–2133, Cambridge, MA, December 7-10, 2009. MIT Press. #697, 263 / 1105 = 23.8%, oral presentation 87/ 1105 = 7.87 %.
 145. Xin Xin, Irwin King, Michael R. Lyu, and Hongbo Deng. A social recommendation framework based on multi-scale continuous conditional random fields. In *Proceedings to the ACM 18th Conference on Information and Knowledge Management (CIKM2009)*, pages 1247–1256, Hong Kong, China, November 2-9 2009. ACM. #462, short paper, LP 123 + SP 171 / 847 = 14.5%.
 146. Hao Ma, Irwin King, Michael R. Lyu, and Haixuan Yang. Semi-nonnegative matrix factorization with global statistical consistency in collaborative filtering. In *Proceedings to the ACM 18th Conference on Information and Knowledge Management (CIKM2009)*, pages 767–775, Hong Kong, China, November 2-9 2009. ACM. #462, short paper, LP 123 + SP 171 / 847 = 14.5%.
 147. Zhenjiang Lin, Irwin King, and Michael R. Lyu. Matchsim: A novel neighbor-based similarity measure with maximum neighborhood matching. In *Proceedings to the ACM 18th Conference on Information and Knowledge Management (CIKM2009)*, pages 1613–1616, Hong Kong, China, November 2-9 2009. ACM. #167, short paper, LP 123 + SP 171 / 847 = 34.7% (20.2%).
 148. Hongbo Deng, Irwin King, and Michael R. Lyu. Enhancing expertise retrieval using community-aware strategies. In *Proceedings to the ACM 18th Conference on Information and Knowledge Management (CIKM2009)*, pages 1733–1736, Hong Kong, China, November 2-9 2009. ACM. #761, short paper, LP 123 + SP 171 / 847 = 34.7% (20.2%).
 149. Tom Chao Zhou and Irwin King. Automobile, car and BMW: Horizontal and hierarchical approach in social tagging systems. In *Workshop Proceedings to the Social Web Search and Mining (SWSM2009) at the ACM 18th Conference on Information and Knowledge Management (CIKM2009)*, pages 25–32, Hong Kong, China, November 2-9 2009. ACM. #25, Workshop paper, AR = 9/21 (43%).
 150. Hao Ma, Michael R. Lyu, Irwin King: Learning to recommend with trust and distrust relationships. In *Proceedings to the 3rd ACM Conference on Recommender Systems*, New York City, NY, USA, October 22-25, RecSys 2009: 189-196. Accepted as long paper. 140 long and 63 short. Accepted 24 long papers. 24/140 = 17%.
 151. Tom Chao Zhou, Hao Ma, Irwin King, and Michael R. Lyu. Tagrec: Leveraging tagging wisdom for recommendation. In *Proceedings of the 2009 International Symposium on Social Intelligence and Networking (SIN2009)*, pages 194–199, Vancouver, Canada, August 29- 31, 2009. 12th IEEE International Conference on Computational Science and Engineering (CSE2009), IEEE Computer Society.
 152. Kam Tong Chan, Irwin King, and Man-Ching Yuen. Mathematical modeling of social games. In *Proceedings of the 2009 International Workshop on Social Intelligence in Applied Gaming (SIAG2009)*, pages 1205–1210, Vancouver, Canada, August 29-31, 2009. 12th IEEE International Conference on Computational Science and Engineering (CSE2009), IEEE Computer Society.
 153. Man-Ching Yuen, Ling-Jyh Chen, and Irwin King. A survey of human computation systems. In *Proceedings of the 2009 International Symposium on Social Computing Applications (SCA2009)*, pages 723–728, Vancouver, Canada, August 29-31, 2009. 12th IEEE International Conference on Computational Science and Engineering (CSE2009), IEEE Computer Society.
 154. Zenglin Xu, Rong Jin, Jieping Ye, Michael R. Lyu, and Irwin King. Non-monotonic feature selection. In *Proceedings of the 26th International Conference on Machine Learning (ICML2009)*, Montreal, Quebec, June 14-18, 2009.
 155. Hao Ma, Irwin King, and Michael R. Lyu. Learning to recommend with social trust ensemble. In James Allan, Javed A. Aslam, Mark Sanderson, ChengXiang Zhai, and Justin Zobel, editors, *Proceedings to the 32nd Annual ACM SIGIR Conference (SIGIR2009)*, pages 203–210, Boston, MA, July 19-23, 2009. ACM Press.
 156. Hongbo Deng, Irwin King, and Michael R. Lyu. Entropy-biased models for query representation on the click graph. In James Allan, Javed A. Aslam, Mark Sanderson, ChengXiang Zhai, and Justin

- Zobel, editors, Proceedings to the 32nd Annual ACM SIGIR Conference (SIGIR2009), pages 339–346, Boston, MA, July 19-23, 2009. ACM Press.
157. Hongbo Deng, Michael R. Lyu, and Irwin King. A generalized co-hits algorithm and its application to bipartite graphs. In The Proceedings to the 15th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD2009), Paris, France, June 28-July 1, 2009.
 158. Zibin Zheng, Hao Ma, Michael R. Lyu, and Irwin King. Wsrec: A collaborative filtering based web service recommender system. In The Proceedings to the IEEE 7th International Conference on Web Services (ICWS2009), Los Angeles, CA, USA, July 6-10, 2009.
 159. Zenglin Xu, Irwin King, Michael R. Lyu, and Rong Jin. Discriminative semi-supervised feature selection via manifold regularization. In Proceedings of Twenty-First International Joint Conference on Artificial Intelligence (IJCAI-09), July 11-17, 2009.
 160. Kaizhu Huang, Zenglin Xu, Irwin King, Michael R. Lyu, and Colin Campbell. Supervised self-taught learning: Actively transferring knowledge from unlabeled data. In Proceedings of the 2009 International Joint Conference on Neural Networks (IJCNN2009), Atlanta, Georgia, USA, June 14-19, 2009.
 161. Irwin King, Jiexing Li, and Kam Tong Chan. A brief survey of computational approaches in social computing. In Proceedings of the 2009 International Joint Conference on Neural Networks (IJCNN2009), Atlanta, Georgia, USA, June 14-19, 2009.
 162. Kam Tong Chan and Irwin King. Let's tango - finding the right couple for feature-opinion association in sentiment analysis. In Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD2009), pages 741–748, April 27-30, 2009.
 163. Hongbo Deng, Irwin King, and Michael R. Lyu. Effective latent space graph-based re-ranking model with global consistency. In Proceedings to the Second ACM International Conference on Web Search and Data Mining (WSDM2009), Barcelona, Spain, February 9-12, 2009. #65, Regular paper, 29/170=17%.
 164. Haiqin Yang and Irwin King. Sprinkled latent semantic indexing for text classification with background knowledge. In Mario Koppen, Nikola Kasabov, and George Coghill, editors, Advances in Neuro-Information Processing: 15th International Conference on Neural Information Processing (ICONIP2008), volume II of LNCS #5506, pages 53–60, Auckland, New Zealand, November 25-28, 2008. Springer-Verlag Berlin Heidelberg.
 165. Kaizhu Huang, Zenglin Xu, Irwin King, and Michael R. Lyu. Semi-supervised learning from general unlabeled data. In Proceedings to the Eighth IEEE International Conference on Data Mining (ICDM2008), Pisa, Italy, December 15-19, 2008.
 166. Kaizhu Huang, Irwin King, and Michael R. Lyu. Direct zero-norm optimization for feature selection. In Proceedings to the Eighth IEEE International Conference on Data Mining (ICDM2008), Pisa, Italy, December 15-19, 2008.
 167. Hongbo Deng, Michael R. Lyu, and Irwin King. Formal models for expert finding on DBLP bibliography data. In Proceedings to the Eighth IEEE International Conference on Data Mining (ICDM2008), Pisa, Italy, December 15-19, 2008.
 168. Haixuan Yang, Irwin King, and Michael Lyu. Learning with consistency between inductive functions and kernels. In Advances in Neural Information Processing System 21 (NIPS2008), Cambridge, MA, December, 2008. MIT Press.
 169. Zenglin Xu, Rong Jin, Irwin King, and Michael Lyu. An extended level method for efficient multiple kernel learning. In Advances in Neural Information Processing System 21 (NIPS2008), Cambridge, MA, December, 2008. MIT Press.
 170. Ling Jyh Chen, Bo-Chun Wang, Kuan Ta Chen, Irwin King, and Jimmy Ho-Man Lee. An analytical study of puzzle selection strategies for the esp game. In Proceedings to the IEEE/WIC/ACM WI-2008 (WI2008), Sydney, Australia, December, 2008.
 171. Chien-Wei Lin, Kuan Ta Chen, Ling Jyh Chen, Irwin King, and Jimmy Ho-Man Lee. An analytical approach to optimizing the utility of esp games. In Proceedings to the IEEE/WIC/ACM WI-2008 (WI2008), Sydney, Australia, December, 2008.
 172. Wei Wei, Irwin King, and Jimmy Ho-Man Lee. Rate: a review of reviewers in a manuscript review process. In Proceedings to the IEEE/WIC/ACM WI-2008 (WI2008), Sydney, Australia, December, 2008.

173. Hao Ma, Haixuan Yang, Irwin King, and Michael R. Lyu. Learning latent semantic relations from query logs for query suggestion. In Proceedings to the ACM 17th Conference on Information and Knowledge Management (CIKM2008), Napa Valley, USA, October 26-30 2008. ACM.
174. Hao Ma, Haixuan Yang, Michael R. Lyu, and Irwin King. Mining social networks using heat diffusion processes for marketing candidates selection. In Proceedings to the ACM 17th Conference on Information and Knowledge Management (CIKM2008), Napa Valley, USA, October 26-30 2008. ACM.
175. Hao Ma, Haixuan Yang, Michael R. Lyu, and Irwin King. Sorec: Social recommendation using probabilistic matrix factorization. In Proceedings to the ACM 17th Conference on Information and Knowledge Management (CIKM2008), Napa Valley, USA, October 26-30, 2008. ACM.
176. Haiqin Yang, Kaizhu Huang, Irwin King, and Michael R. Lyu. Efficient minimax clustering probability machine by generalized probability product kernel. In Jacek M. Zurada, Gary G. Yen, and Jun Wang, editors, Proceedings to the World Congress on Computational Intelligence (WCCI2008), Hong Kong, June 2-6, 2008. IEEE.
177. Zenglin Xu, Ron Jin, Jianke Zhu, Irwin King, and Michael Lyu. Efficient convex relaxation for transductive support vector machine. In J.C. Platt, D. Koller, Y. Singer, and S. Roweis, editors, Advances in Neural Information Processing System 20 (NIPS2007), Cambridge, MA, December 3-6, 2007. MIT Press.
178. Zenjiang Lin, Michael Lyu, and Irwin King. Extending link-based algorithms for similar web pages with neighborhood structure. In Proceedings to the 2007 IEEE / WIC / ACM International Conference on Web Intelligence, (WI2007), pages 263–266, San Jose, USA, 2-5 November 2007.
179. Wei Wei, Irwin King, J. H. M. Lee: Bibliographic Attributes Extraction with Layer-upon-Layer Tagging. In Proceedings to the International Conference on Document Analysis and Recognition (ICDAR 2007): 804-808.
180. Haixuan Yang, Irwin King, and Michael R. Lyu. DiffusionRank: A possible penicillin for web spamming. In Noriko Kando, Charlie Clarke, and Norbert Fuhr, editors, Proceedings to the Special Interest Group on Information Retrieval (SIGIR2007), pages 431–438, Amsterdam, Netherlands, 23-27 July 2007. ACM.
181. Hao Ma, Irwin King, and Michael R. Lyu. Effective missing data prediction for collaborative filtering. In Noriko Kando, Charlie Clarke, and Norbert Fuhr, editors, Proceedings to the Special Interest Group on Information Retrieval (SIGIR2007), pages 39–46, Amsterdam, Netherlands, 23-27 July 2007. ACM.
182. Xiang Peng and Irwin King. Large scale imbalanced classification with biased minimax probability machine. In Proceedings of 20th International Joint Conference on Neural Networks (IJCNN2007), Orlando, Florida.
183. Hongbo Deng, Jianke Zhu, Michael Lyu, and Irwin King. Two-stage multi-class adaboost for facial expression recognition. In Proceedings of 20th International Joint Conference on Neural Networks (IJCNN2007), Orlando, Florida.
184. Zenglin Xu, Jianke Zhu, Michael Lyu, and Irwin King. Semi-supervised spectral kernel learning. In Proceedings of 20th International Joint Conference on Neural Networks (IJCNN2007), Orlando, Florida.
185. Xiang Peng and Irwin King. Efficient training on biased minimax probability machine for imbalanced text classification. In Poster Proceedings of 16th International World Wide Web Conference, Banff, Alberta, Canada, 2007.
186. Wei Wei, Jimmy Lee, and Irwin King. Measuring credibility of users in an e-learning environment. In Proceedings of 16th International Conference on World Wide Web (WWW2007) Poster Session, Banff, Alberta, Canada, 2007.
187. Zenglin Xu, Irwin King, and Michael R. Lyu. Kernel-based heterogeneous web page classification. In Proceedings of 16th International Conference on World Wide Web (WWW2007) Poster Session, Banff, Alberta, Canada, 2007.
188. Daniel Chun-Ming Leung, Pak-Shing Au, Irwin King, and Edward Hon-Hei Yau. Remote augmented reality for multiple players over network. In Proceedings of the International Conference on Advances in Computer Entertainment Technology (ACE2007), volume 203 of ACM International Conference Proceeding Series, pages 220–223, Salzburg, Austria, June 13-15, 2007. ACM, ACM Press. <http://www.ace2007.org>, 25/75, short paper.

189. Zhenjiang Lin, Irwin King, and Michael R. Lyu. Pagesim: A novel link-based similarity measure for the world wide web. In *Web Intelligence* [?], pages 687–693.
190. 2006 IEEE / WIC / ACM International Conference on Web Intelligence (WI2006), 18-22 December 2006, Hong Kong, China. IEEE Computer Society, 2006.
191. Kaizhu Huang, Haiqin Yang, Irwin King, and Michael R. Lyu. Local support vector regression for financial time series prediction. In *2006 International Joint Conference on Neural Networks (IJCNN2006)*, pages 1622–1627, Vancouver, Canada, 2006.
192. Haixuan Yang, Irwin King, and Michael R. Lyu. Predictive random graph ranking on the web. In *2006 International Joint Conference on Neural Networks (IJCNN2006)*, pages 1825–1832, Vancouver, Canada, July 16-21, 2006.
193. Xiang Peng and Irwin King. Imbalanced learning in relevance feedback with biased minimax probability machine for image retrieval tasks. In *Proceedings of 13th International Conference on Neural Information Processing (ICONIP2006)*, Hong Kong, 2006.
194. Xiang Peng and Irwin King. Biased minimax probability machine active learning for relevance feedback in content-based image retrieval. In *Proceedings of 7th International Conference on Intelligent Data Engineering and Automated Learning (IDEAL2006)*, volume 4224 of *Lecture Notes in Computer Science (LNCS)*, pages 953–960, Burgos, Spain, September 2006.
195. Tak Pang Lau and Irwin King. Bilingual web page and site readability assessment. In *Proceedings of the 15th International Conference on World Wide Web, Poster Track*, number P129, pages 993–994, Edinburgh, Scotland, May 23-26, 2006.
196. Zhenjiang Lin, Michael R. Lyu, and Irwin King. Pagesim: A novel link-based measure of web page similarity. In *Proceedings of the 15th International Conference on World Wide Web, Poster Track*, number P36, pages 1019–1020, Edinburgh, Scotland, May 23-26, 2006.
197. Ka Kan Lo, Xiang Peng, and Irwin King. A user profile-based approach for personal information access: Shaping your information portfolio. In *Proceedings of the 15th International Conference on World Wide Web, Poster Track*, number P129, pages 921–922, Edinburgh, Scotland, 2006.
198. Haixuan Yang, Irwin King, and Michael R. Lyu. NHDC and PHDC: Non-propagating and propagating heat diffusion classifiers. In *12th International Conference on Neural Information Processing, ICONIP2005*, pages 394–399, Taipei, Taiwan, October 30-November 2, 2005.
199. Kaizhu Huang, Zhangbing Zhou, and Irwin King. Improving naive bayesian classifier by discriminative training. In *12th International Conference on Neural Information Processing, ICONIP2005*, pages 49–54, Taipei, Taiwan, October 30-November 2, 2005.
200. Haixuan Yang, Irwin King, and Michael R. Lyu. Predictive ranking: A novel page ranking approach by estimating the web structure. In Allan Ellis and Tatsuya Hagino, editors, *Proceedings of the Fourteenth International World Wide Web Conference*, pages 944–945. Keio University, ACM, May 10-14 2005.
201. Wan Yeung Wong, Tak Pang Lau, and Irwin King. Information retrieval in p2p networks using genetic algorithm. In Allan Ellis and Tatsuya Hagino, editors, *Proceedings of the Fourteenth International World Wide Web Conference*, pages 922–923. Keio University, ACM, May 10-14, 2005.
202. Shi Lu, Michael R. Lyu, and Irwin King. Semantic video summarization using mutual reinforcement principle and shot arrangement patterns. In *Proceedings of the 11th International Conference on Multimedia Modeling (MMM2005)*, pages 60–67, Melbourne, Australia, January 12-14, 2005. IEEE.
203. Shi Lu, Irwin King, and Michael R. Lyu. A novel video summarization framework for document preparation and archival applications. In *2005 IEEE Aerospace Conference Proceedings*, pages CDROM: IEEEAC paper #1415:1–10, Big Sky, Montana, March 5-12 2005. IEEE.
204. Michael R. Lyu, Irwin King, T.T. Wong, Edward Yau, and P.W. Chan. ARCADE: Augmented reality computing arena for digital entertainment. In *2005 IEEE Aerospace Conference Proceedings*, pages CDROM: IEEEAC paper #1416:1–9, Big Sky, Montana, March 5-12 2005. IEEE.
205. Chi-Hang Chan and Irwin King. Using biased support vector machine to improve retrieval result in image retrieval with self-organizing map. In Nikhil R. Pal, Nikola Kasabov, Rajani K. Mudi, Pal Srimanta, and Swapan K. Parui, editors, *11th International Conference on Neural Information Processing, ICONIP2004*, volume *Lecture Notes in Computer Science # 3316*, pages 714–719, Calcutta, India, November 22-25, 2004. Springer.
206. Haiqin Yang, Kaizhu Huang, Laiwan Chan, Irwin King, and Michael R. Lyu. Outliers treatment in support vector regression for financial time series prediction. In Nikhil R. Pal, Nikola Kasabov, Rajani

- K. Mudi, Pal Srimanta, and Swapan K. Parui, editors, 11th International Conference on Neural Information Processing, ICONIP2004, volume Lecture Notes in Computer Science # 3316, pages 1260–1265, Calcutta, India, November 22-25, 2004. Springer.
207. Chu-Hong Hoi, Chi-Hang Chan, Kaizhu Huang, Michael R. Lyu, and Irwin King. Biased support vector machine for relevance feedback in image retrieval. In Proceedings of the 2004 International Joint Conference on Neural Networks (IJCNN2004), pages 3189–3294, Budapest, Hungary, July 25–29 2004.
 208. Kaizhu Huang, Haiqin Yang, Irwin King, and Michael R. Lyu. Learning large margin classifiers locally and globally. In Russ Greiner and Dale Schuurmans, editors, Proceedings of the Twenty-First International Conference on Machine Learning (ICML2004), pages 401–408, Banff, Canada, July 4-8, 2004.
 209. Kaizhu Huang, Haiqin Yang, Irwin King, and Michael R. Lyu. Learning classifiers from imbalanced data based on biased minimax probability machine. In Proceedings IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR' 2004), volume 2, pages 558–563, Washington D.C., 2004.
 210. Shi Lu, Irwin King, and Michael Lyu. Video summarization by spatial-temporal graph optimization. In Proceedings of IEEE ISCAS 2004, pages II–197–200, Vancouver, Canada, May 23-26, 2004. IEEE Society.
 211. Shi Lu, Irwin King, and Michael Lyu. Video summarization by video structure analysis and graph optimization. In Proceedings of The 2004 IEEE International Conference on Multimedia and Expo (ICME'04), volume CD-ROM, Taipei, Taiwan, June 27-30, 2004. IEEE Society.
 212. Kaizhu Huang, Haiqin Yang, Irwin King, Michael R. Lyu, and Laiwan Chan. Biased minimax probability machine for medical diagnosis. In The Eighth International Symposium on Artificial Intelligence and Mathematics, Fort Lauderdale, Florida, 2003.
 213. Shi Lu, Irwin King, and Michael Lyu. Video summarization using greedy method in a constraint satisfaction framework. In Proceedings of 9th International Conference on Distributed Multimedia Systems (DMS'03), pages 456–461, 2003.
 214. Kaizhu Huang, Irwin King, and Michael R. Lyu. Finite mixture model of bound semi-naive bayesian network classifier. In Proceedings of the International Conference on Artificial Neural Networks (ICANN-2003), Lecture Notes in Artificial Intelligence, Long paper, volume 2714, pages 115–122, Istanbul, Turkey, 2003. Springer-Verlag Heidelberg.
 215. Chi Hang Chan, Ka-Cheung Sia, and Irwin King. Utilizing inter- and intra-query relevance feedback for content-based image retrieval. In Proceedings to the International Conference on Neural Information Processing (ICONIP2003), Istanbul, Turkey, May 2003.
 216. Kaizhu Huang, Irwin King, and Michael R. Lyu. Discriminative training of Bayesian Chow-Liu multinet classifier. In Proceedings of International Joint Conference on Neural Networks (IJCNN2003), pages 484–488, Portland, Oregon, USA, July 20-24 2003. IEEE NNS.
 217. Ho-Man Tang, Michael Lyu, and Irwin King. Face recognition committee machine. In Proceedings of IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2003), pages 837–840, April 6-10 2003.
 218. Ho-Man Tang, Michael Lyu, and Irwin King. Face recognition committee machine. In Proceedings of IEEE International Conference on Multimedia and Expo (ICME 2003), volume 3, pages 425–428, July 6-9 2003.
 219. Kaizhu Huang, Irwin King, and Michael R. Lyu. Constructing a large node Chow-Liu Tree based on frequent itemsets. In Proceedings to the International Conference on Neural Information Processing (ICONIP2002), page cr1317, Orchid Country Club, Singapore, November 18-22, 2002. Nanyang Technological University.
 220. Haiqin Yang, Irwin King, and Laiwan Chan. Non-fixed and asymmetrical margin approach to stock market prediction using support vector regression. In Proceedings to the International Conference on Neural Information Processing (ICONIP2002), page cr1968, Orchid Country Club, Singapore, November 18-22, 2002. Nanyang Technological University.
 221. Wan Zhang and Irwin King. Locating support vectors via β -skeleton technique. In Proceedings to the International Conference on Neural Information Processing (ICONIP2002), page cr1968, Orchid Country Club, Singapore, November 18-22, 2002. Nanyang Technological University.

222. Kaizhu Huang, Irwin King, and Michael R. Lyu. Learning maximum likelihood semi-naive Bayesian network classifier. In Proceedings to the 2002 IEEE International Conference on Systems, Man and Cybernetics Conference (SMC2002), page TA1F3, Hammamet, Tunisia, October 6-9, 2002.
223. Haiqin Yang, Laiwan Chan, and Irwin King. Support vector machine regression for volatile stock market prediction. In Hujun Yin, Nigel Allinson, Richard Freeman, John Keane, and Simon Hubbard, editors, Intelligent Data Engineering and Automated Learning - IDEAL'02, LNCS # 2412, pages 391–396, Manchester, United Kingdom, August 12-14, 2002. Springer.
224. Cheuk Hang Ng and Ka Cheung Sia. Peer clustering and firework query model. In Irwin King, editor, Poster Proceedings of 11th World Wide Web Conference (WWW2002), Honolulu, Hawaii, May 2002. International World Wide Web Conference Committee.
225. Wan Zhang and Irwin King. A study of the relationship between support vector machine and gabriel graph. In Proceedings of IEEE World Congress on Computational Intelligence– International Joint Conference on Neural Networks (WCCI'02-IJCNN'02), 2002. CD-ROM, page not unavailable, #1415.
226. K. C. Sia and Irwin King. Relevance feedback based on parameter estimation of target distribution. In C. Lee Giles, editor, Proceedings of International Joint Conference on Neural Networks (IJCNN2002), pages 1974–1979, Honolulu, Hawaii, May 2002. IEEE NNS.
227. Chun Hung Cheng, Jian Tang, Ada Wai-Chee Fu, and Irwin King. Hierarchical classification of documents with error control. In Knowledge Discovery and Data Mining–PAKDD 2001, 5th Pacific-Asia Conference, volume 2035 of Lecture Notes in Computer Science, page 433–443. Springer, 2001.
228. Irwin King and Zhong Jin. Relevance feedback content-based image retrieval using query distribution estimation based on maximum entropy principle. In Liming Zhang and Fanji Gu, editors, Proceedings to the International Conference on Neural Information Processing (ICONIP2001), volume 2, pages 699–704, Shanghai, China, November 14-18 2001. Fudan University, Fudan University Press.
229. H.Y. Yue, I. King, and K.S. Leung. Using natural clusters information to build fuzzy indexing structure. In Liming Zhang and Fanji Gu, editors, Proceedings to the International Conference on Neural Information Processing (ICONIP2001), volume 3, pages 1559–1564, Shanghai, China, November 14-18 2001. Fudan University, Fudan University Press.
230. Huilin Xiong and Irwin King. An adaptive codebook design using the branching competitive learning network. In Proceedings to the International Joint Conference on Neural Networks (IJCNN2001), number 450 in 1, pages 2116–2121, Washington D.C., USA, July 2001. INNS, NNC of IEEE, OmniPress.
231. Chung Wing Ng, Irwin King, and Michael R. Lyu. Video comparison using tree matching algorithms. In H. R. Arabnia, editor, Proceedings of The International Conference on Imaging Science, Systems and Technology, volume 1, pages 184–190, Las Vegas, Nevada, USA, June 2001. CSREA Press.
232. Anson Lee, Michael Lyu, and Irwin King. Agent-based multimedia data sharing platform. In Yetongnon Waleed W. Smari, Nordine Melab, editor, Proceedings of the International Symposium on Information Systems and Engineering, volume 1, Las Vegas, Nevada, USA, June 2001. CSREA Press.
233. Anson Lee, Michael Lyu, and Irwin King. An agent-based platform for online auctions. In P. Graham, M. Maheswaran, and R. Eskicioglu, editors, Proceedings of the International Conference of Internet Computing, volume 2, Las Vegas, Nevada, USA, June 2001. CSREA Press.
234. Kenny Kwok, Michael R. Lyu, and Irwin King. A novel pat-tree approach to chinese document clustering. In Waleed W. Smari, Nordine Melab, and Kokou Yetongnon, editors, Proceedings of The International Symposium on Information System and Engineering, pages 85–91. CSREA Press, 6 2001.
235. H.Y. Yue, I. King, and K.S. Leung. Fuzzy clustering method for content-based indexing. In 2001 WSES FSFS International Conference, Fuzzy Sets and Fuzzy Systems, volume 1, pages 541:1–541:9, Canary Islands, Spain, 2001.
236. Wing Hang Cheung, Ka Fai Pang, Michael R. Lyu, Kam Wing Ng, and Irwin King. Chinese optical character recognition for information extraction from video images. In Hamid R. Arabnia, editor, Proceedings of The 2000 International Conference on Imaging Science, Systems and Technology (CISST'2000) Volume One, pages 269–275. CSREA Press, 2000.

237. X. Q. Li and Irwin King. Regression analysis for rival penalized competitive learning binary tree. In Proceedings to the International Joint Conference on Neural Networks (IJCNN2000), volume 113-03, Como, Italy, 2000.
238. Irwin King and Huilin Xiong. Branching competitive learning for clustering. In Proceedings to the International Conference on Neural Information Processing (ICONIP2000), pages WBP-27, Taejon, Korea, 2000.
239. Irwin King, Zhong Jin, David Yuk-Ming Chan: Chinese Cursive Script Character Image Retrieval Based on an Integrated Probability Function. In Proceedings to the Fourth International Conference on Visual Information Systems (VISUAL2000), Lyon, France, November 2-4: 530-539
240. Zhong Jin, Irwin King, Xuequn Li: Content-Based Image Retrieval by Relevance Feedback. In Proceedings to the Fourth International Conference on Visual Information Systems (VISUAL2000), Lyon, France, November 2-4: 521-529.
241. Xue Qun Li, Tak-Kan Lau, and Irwin King. Hierarchical rival penalized competitive learning binary tree for multimedia feature-based indexing. In Proceedings of the First International Workshop on Intelligent Multimedia Computing and Networking (IMMCN2000), Atlantic City, New Jersey, 2000.
242. Xuequn Li and Irwin King. Information retrieval using local linear pca. In T. Gedeon, P. Wong, S. Halgamuge, N. Kasabov, D. Nauck, and K. Fukushima, editors, Proceedings of the 1999 International Conference on Neural Information Processing and Intelligent Information Systems (ICONIP'99), volume III, pages 867-872, Perth, Australia, November 16-20, 1999. IEEE.
243. Kwong-Sak Leung, Irwin King, and Ming-Fun Tse. FF99: A novel fuzzy first-order logic learning system. In IEEE SMC'99 Conference Proceedings on Systems, Man, and Cybernetics, volume 5, pages 178-184, October 12-15, 1999.
244. Xuequn Li and Irwin King. Gaussian mixture distance for information retrieval. In Proceedings of the 1999 International Joint Conference on Neural Networks (IJCNN'99), volume CD-ROM, page #2070, Washington DC, July 10-16, 1999. IEEE.
245. David Yuk Ming-Chan and Irwin King. Weights assignment in dissimilarity function for Chinese cursive script character image retrieval using genetic algorithm. In The Fourth International Workshop on Information Retrieval with Asian Languages (IRAL'99), pages 55-62. Academia Sinica, Taipei, Taiwan, 1999.
246. Irwin King and Tak-Kan Lau. Non-hierarchical clustering with rival penalized competitive learning for information retrieval. In Petra Perner and Maria Petrou, editors, Proceedings of the First International Workshop on Machine Learning and Data Mining in Pattern Recognition (MLDM'99), also as Lecture Notes in Artificial Intelligence # 1715, pages 116-130. Springer Verlag Berlin Heidelberg, September 1999.
247. David Yuk-Ming Chan and Irwin King. Genetic algorithm for weights assignment in dissimilarity function for trademark retrieval. In Third International Conf. on Visual Information and Information Systems (VISUAL'99), volume 1614 of Lecture Notes in Computer Science, pages 557-565, Amsterdam, The Netherlands, June 2-4, 1999. Berlin, Germany: Springer Verlag.
248. F.Y. Duan and I. King. A short summary of digital watermarking techniques for multimedia data. In Proceedings of the 1999 Hong Kong International Computer Conference (HKICC'99), page 1-9, Hong Kong, 1999. Hong Kong Computer Society.
249. D.A. Adjeroh, I. King, and M.C. Lee. Video sequence similarity matching. In Horace H.S. Ip and Arnold W.M. Smeulders, editors, Proceedings of the IAPR International Workshop on Multimedia Information Analysis and Retrieval, MINAR'98, also as Lecture Notes in Computer Science # 1464, pages 80-95, Berlin Heidelberg, Germany, 1998. Springer-Verlag.
250. D.A. Adjeroh, M.C. Lee, and I. King. A distance measure for video sequence similarity matching. In Proceedings, 1998 International Workshop on Multimedia Database Management Systems, 1998.
251. Xuequn Li and Irwin King. Noise removal based on classification of wavelet coefficients using counterpropagation neural networks. In Shiro Usui and Takashi Omori, editors, Proceedings of the 1998 International Conference on Neural Information Processing and Intelligent Information Systems (ICONIP'98), volume 1, pages 343-346. IOS Press, 1998.
252. K.S. Leung, Terence Wong, and Irwin King. Probabilistic cooperative-competitive hierarchical modeling for global optimization. In Takeshi Yamakawa and Gen Matsumoto, editors, Proc. 5th Intl. Conf. Soft Computing and Information/Intelligent Systems (IIZUKA '98), pages 748-751. World Scientific, 1998.

253. K.S. Leung, Terence Wong, and Irwin King. Probabilistic cooperative-competitive hierarchical modeling as a genetic operator in global optimization. In Proc. 1998 Intl. Conf. Systems, Man, and Cybernetics (SMC'98), pages 3959–3964, 1998.
254. F.Y. Duan, I. King, L. Xu, and L.W. Chan. Intra-block algorithm for digital watermarking. In 14th International Conference on Pattern Recognition (ICPR'98), volume II, pages 1589–1591, Brisbane, Queensland, Australia, 17-20 August 1998. International Association of Pattern Recognition, IEEE Computer Society.
255. F.Y. Duan, I. King, L. Xu, and L.W. Chan. Intra-block max-min algorithm for embedding robust digital watermark into images. In Horace H.S. Ip and Arnold W.M. Smeulders, editors, Proceedings of the IAPR International Workshop on Multimedia Information Analysis and Retrieval, MINAR'98, also as Lecture Notes in Computer Science # 1464, pages 255–264, Berlin Heidelberg, Germany, 1998. Springer-Verlag.
256. I. King, L. Xu, and L.W. Chan. Using rival penalized competitive clustering for feature indexing in Hong Kong's textile and fashion image database. In Proceedings to the International Joint Conference on Neural Networks (IJCNN'98), pages 237–240. IEEE Computer Press, May 4-9, 1998.
257. Tak Kan Lau and Irwin King. Performance analysis of clustering algorithms for information retrieval in image databases. In Proceedings to the International Joint Conference on Neural Networks (IJCNN'98), pages 932–937. IEEE Computer Press, May 4-9, 1998.
258. T. K. Lau and I. King. Montage: An image database for the fashion, clothing, and textile industry in Hong Kong. In Proceedings of the Third Asian Conference on Computer Vision (ACCV'98), also as Lecture Notes in Computer Science # 1351, volume I, pages 410–417, January 4-7, 1998. Springer Verlag Berlin Heidelberg.
259. Siu-hang Or, W. S. Luk, Kin-hong Wong, and Irwin King. An efficient iterative pose estimation algorithm. In Proceedings of the Third Asian Conference on Computer Vision (ACCV'98), also as Lecture Notes in Computer Science # 1352, volume II, pages 559–566, January 4-7, 1998. Springer Verlag Berlin Heidelberg.
260. I. King and T. K. Lau. Comparison of several partitioning methods for information retrieval in image databases. In Proceedings of the 1997 International Symposium on Multimedia Information Processing (ISMIP'97), pages 215–220, Taipei, Taiwan, 1997. Academia Sinica.
261. I. King and T. K. Lau. Competitive learning clustering for information retrieval in image databases. In Nikola Kasabov, Robert Kozma, Kitty Ko, Robert O'Shea, George Coghill, and Tom Gedeon, editors, Progress in Connectionist-Based Information Systems, Proceedings of the 1997 International Conference on Neural Information Processing and Intelligent Information Systems, volume 2, pages 906–909. Springer-Verlag, 1997.
262. Lun Hsing Tung and Irwin King. A two-stage framework for polygon retrieval using minimum circular error bound. In Proceedings to the 9th International Conference on Image Analysis and Processing (ICIAP'97), also as Lecture Notes in Computer Science # 1310, volume I, pages 567–574. Springer-Verlag, Florence, Italy, September 17-19, 1997.
263. Irwin King and Lei Xu. Localized principal component analysis learning for face feature extraction and recognition. In Proceedings to the Workshop on 3D Computer Vision '97, pages 124–128, Shatin, Hong Kong, 1997. The Chinese University of Hong Kong.
264. Siu-hang Or, Kin-hong Wong, and Irwin King. A novel point-based pose estimation algorithm. In Proceedings to the 3D Computer Vision Workshop, pages 139–142, Shatin, Hong Kong, 1997. The Chinese University of Hong Kong.
265. I. King and T. K. Lau. A feature-based image retrieval database for the fashion, textile, and clothing industry in Hong Kong. In Proceedings of the 1996 International Symposium Multi-Technology Information Processing, pages 233–240, Taiwan, R.O.C., December 16-18, 1996. National Tsing Hua University.
266. L. H. Tung and I. King. A two-stage framework for efficient simple polygon retrieval in image database. In Proceedings of the 1996 International Symposium Multi-Technology Information Processing, pages 201–208, Taiwan, R.O.C., December 16-18, 1996. National Tsing Hua University.
267. I. King and H. T. Hou. Radial basis network for facial expression synthesis. In Progress in Neural Information Processing: Proceedings of the International Conference on Neural Information Processing (ICONIP'96), volume II, pages 1127–1130, Hong Kong, September 24-27, 1996. The Chinese University of Hong Kong, Springer Verlag, Singapore.

268. Lun Hsing Tung, I. King, Ping Fu Fung, and Wing Sze Lee. Two-Stage polygon representation for efficient shape retrieval in image databases. In Proceedings of the First International Workshop on Image Databases and Multi-Media Search, pages 146–153, Amsterdam, The Netherlands, 1996. Intelligent Sensory Information Systems.
269. M. Fung, W. Lee, and I. King. Randomized generalized Hough Transform for 2-D grayscale object detection. In Proceedings of International Conference on Pattern Recognition, volume II, pages B 511–515, Technical University of Vienna, Austria, 1996. IEEE Computer Society Press.
270. Mary Y.Y. Leung, Hung Yen Hui, and Irwin King. Facial expression synthesis by radial basis function network and image warping. In IEEE International Conference on Neural Networks, volume III, pages 1400–1405, Washington D.C., 1996. IEEE Computer Society.
271. Wai-Kit Chan, Irwin King, and John Lui. Performance analysis of a new updating rule for TD(λ) learning in feedforward networks for position evaluation in Go game. In IEEE International Conference on Neural Networks, volume III, pages 1716–1720, Washington D.C., 1996. IEEE Computer Society.
272. I. King. Two adaptive neural networks for image histogram processing. In Proceedings to the 1995 International Symposium on Artificial Neural Networks (ISANN'95), pages A3–10–A3–15, Hsinchu, Taiwan, Republic of China, 1995. National Chiao Tung University.
273. Bai-ling Zhang, Qin Zhou, Irwin King, and Lei Xu. Least mean square error reconstruction learning in recurrent network. In Proceedings to the IEEE International Conference on Neural Networks, volume VI, pages 3009–3012, Perth, Australia, November 1995.
274. I. King and L. Xu. Adaptive contrast enhancement by entropy maximization with a 1-K-1 constrained network. In Yixin Zhong, Yixian Yang, and Minghui Wang, editors, Proceedings to the International Conference on Neural Information Processing, pages 703–706, Beijing, PRC, October 1995. Publishing House of Electronics Industry.
275. Bai-ling Zhang, Irwin K. King, and Lei Xu. An efficient PCA-type learning based on scaled conjugate gradient algorithm for fast signal subspace decomposition. In Yixin Zhong, Yixian Yang, and Minghui Wang, editors, Proceedings to the International Conference on Neural Information Processing, pages 1030–1033, Beijing, PRC, October 1995. Publishing House of Electronics Industry.
276. Wai-Kit Chan and I. King. Temporal difference learning and its application to Go. In Proceedings to the Computer Strategy Game Programming Workshop, Shatin, New Territories, Hong Kong, 1995. The Chinese University of Hong Kong.
277. I. King and L. Xu. Using global PCA generated receptive fields for face recognition. In Proceedings to the World Congress on Neural Networks, volume II, pages 542–545, Washington D. C. USA, July 17-21, 1995. International Neural Network Society, Lawrence Erlbaum Associates, Inc.
278. B. L. Zhang, I. King, and L. Xu. A robust PCA by LMSE learning with iterative error reinforcement. In Proceedings to the World Congress on Neural Networks, volume I, pages 501–504, Washington D. C. USA, July 17-21, 1995. International Neural Network Society, Lawrence Erlbaum Associates, Inc.
279. I. King and L. Xu. The formation of spatiotemporal masks from 1-D sinusoidal grating patterns with principal component analysis learning. In Myung-Won Kim and Soo-Young Lee, editors, Proceedings to the International Conference on Neural Information Processing, volume I, pages 117–121, Seoul, Korea, Oct 1994.
280. I. King. An application of the discrete Fourier transformation in simulating large neural networks. In Proceedings of International Symposium on Speech, Image Processing & Neural Networks, volume II, pages 495–498, Hong Kong, April 14-16, 1994.
281. I. King and M. Arbib. Motion interpretation of trochoidal paths. In Proceedings to the World Congress on Neural Networks, San Diego, CA USA, June 4-9, 1994. International Neural Network Society.
282. I. King and M. Arbib. A neural network model for extracting visual motion reversal invariant events. In International Joint Conference on Neural Networks, volume I, page 658, Beijing, PRC, 1992. IEEE Computer Society.
283. A. H. Fagg, I. King, M. A. Lewis, J. Liaw, and A. Weitzenfeld. A neural network based testbed for modelling sensorimotor integration in robotic applications. In International Joint Conference on Neural Networks, volume 1, pages 86–91, Baltimore, MD, 1992. IEEE Computer Society.

284. I. King, J. Liaw, and M. A. Arbib. A neural network for the detection of rotational motion. In International Joint Conference on Neural Networks, volume 1, pages 707–712, Seattle, WA, 1991. IEEE Computer Society.
285. D. L. Wang and I. King. Three neural models which process temporal information. In First Annual Conference of the International Neural Network Society, page 227, Boston, MA, 1988. IEEE.

6.3 Special Issues in Journals

1. Irwin King and Yongmin Li. Special issue on “Advances in Computational Intelligence” in International Journal of Intelligent Computing and Cybernetics, Vol. 1 No. 4. Emerald Publishing, 2008.

6.4 Books Authored

1. Shenglin Zhao, Michael R. Lyu, Irwin King: Point-of-Interest Recommendation in Location-Based Social Networks. Springer Briefs in Computer Science, Springer 2018, ISBN 978-981-13-1348-6, pp. 1-99.
2. Hongyi Zhang, Irwin King, and Michael R. Lyu. Matrix Factorization Framework for Overlapping Community Detection: Modeling the Relationship between Links and Communities. LAP LAMBERT Academic Publishing. August 8, 2018.
3. Haiqin Yang, Irwin King, and Michael R. Lyu. Sparse Learning Under Regularization Framework: Theory and Applications. LAP LAMBERT Academic Publishing, April 2011.
4. Zenglin Xu, Irwin King, and Michael R. Lyu. More Than Semi-supervised Learning: A unified view on Learning with Labeled and Unlabeled Data. LAP LAMBERT Academic Publishing, first edition, December 28, 2010.

6.5 Book Chapters

1. Hanqin Yang, Kaizhu Huang, Zenglin Xu, Irwin King, and Michael R. Lyu. Semi-supervised learning with mixed unlabeled data. Machine Learning and Its Applications: 2011, chapter 13, pages 221–242. Tsinghua University Press, 2011.
2. Chi Hong Cheong, Lau Tak Pang, and Irwin King. Policy and issues in deploying automated plagiarism detection systems in academic communities: A case study of veriguide. In Marian Quigley, editor, ICT Ethics and Security in the 21st Century: New Developments and Applications, chapter 9, pages 172–195. Information Science Publisher, February 2011.
3. Kaizhu Huang, Zenglin Xu, Irwin King, Michael R. Lyu, and Zhangbing Zhou. Bayesian network technologies: Applications and graphical models. chapter A Novel Discriminative Naive Bayesian Network for Classification, pages 1–12. IGI Publishing, 2007.
4. Wan-Yeung Wong, Tak-Pang Lau, Irwin King, and Michael R. Lyu. A tutorial on RDF with Jena. In Eldon Y. Li and Timon C. Du, editors, Advances in Electronic Business Volume 2, volume 2, pages 116–140. Cybertech Publishing, 2007.
5. Kaizhu Huang, Haiqin Yang, Irwin King, and Michael R. Lyu. Support Vector Machines: Theory and Applications, volume 177/2005 of Studies in Fuzziness and Soft Computing, chapter Local Learning vs. Global Learning: An Introduction to Maxi-Min Margin Machine, pages 113–132. Springer-Verlag, April 2005.
6. Haiqin Yang, Irwin King, Laiwan Chan, and Kaizhu Huang. Neural Information Processing: Research and Development, volume 152 of Studies in Fuzziness and Soft Computing, chapter Financial Time Series Prediction Using Non-fixed and Asymmetrical Margin Setting with Momentum in Support Vector Regression, pages 334–350. Springer-Verlag, 2004.
7. Kaizhu Huang, Irwin King, Michael R. Lyu, and Haiqin Yang. Neural Information Processing: Research and Development, volume 152 of Studies in Fuzziness and Soft Computing, chapter Improving Chow-Liu tree performance based on association rules, pages 138–143. Springer-Verlag, 2004.
8. H.Y. Yue, I. King, and K.S. Leung. Fuzzy clustering method for content-based indexing. In Nikos Mastorakis, editor, Advances in Fuzzy Systems and Evolutionary Computation, volume 1, pages 138–143. World Scientific Engineering Society, 2001.
9. I. King and X.Q. Li. Facial expression synthesis using radial basis function networks. In L.C. Jain, U. Halici, I. Hayashi, S.B. Lee, and S. Tsutsui, editors, Intelligent Biometric Techniques in Fingerprint and Face Recognition, pages 399–421. CRC Press, 1999.

10. J.-S. Liaw, I. King, and M.A. Arbib. Visual perception of translational and rotational motion. In O.M. Omidvar and R. Mohan, editors, *Progress in Neural Networks Volume 4: Neural Networks in Vision*, pages 77–112. Ablex Publishing, Norwood, NJ, 1997.
11. Y. Kawahara, I. King, and M. A. Arbib. An actor formalization for blackboard schema systems. In S. Ohsuga et al., editor, *Information Modelling and Knowledge Bases: Foundation, Theory, and Applications*, pages 467–479. IOS Press, Amsterdam, 1991.

6.6 Books Edited

1. Zhigang Zeng, Yangmin Li, and Irwin King. *Advances in Neural Networks – ISNN 2014: 11th International Symposium on Neural Networks, ISNN 2014, Hong Kong and Macao, China, November 28 -- ... (Lecture Notes in Computer Science (8866))*. Springer. November 2014.
2. Longbing Cao, Hiroshi Motoda, Jaideep Srivastava, Ee-peng Lim, Irwin King, Philip S. Yu, Wolfgang Nejdl, Guangdong Xu, Gang Li, and Ya Zhang. *Behavior and Social Computing: International Workshop on Behavior and Social Informatics, BSI 2013, Gold Coast, Australia, April 14-17, 2013. (Lecture Notes in Computer Science (8178))*, Springer. December 11, 2013.
3. Steven Ch.H. Hoi, Jiebo Luo, Susanne Boll, Dong Xu, Rong Jin, and Irwin King. *Social Media Modeling and Computing*. Springer. 2011.
4. Bebo White, Irwin King, and Philip Tsang. *Social Media Tools and Platforms in Learning Environments*. Springer. 2011.
5. Irwin King and Wolfgang Nejdl. *WSDM'11: Fourth ACM International Conference on Web Search and Data Mining Hong Kong China*. ACM. February, 2011.
6. Jie Tang, Irwin King, Ling Chen, Jianyong Wang. *Advanced Data Mining and Applications: 7th International Conference, ADMA 2011, Beijing, China, December 17-19, 2011, Proceedings, Part I (Lecture Notes in Computer Science (7120))*. Springer. December 2, 2011.
7. Jie Tang, Irwin King, Ling Chen, Jianyong Wang. *Advanced Data Mining and Applications: 7th International Conference, ADMA 2011, Beijing, China, December 17-19, 2011, Proceedings, Part II (Lecture Notes in Computer Science (7121))*. Springer. December 2, 2011.
8. Irwin King, Juanzi Li, Gui-rong Xue, and Jie Tang. *CIKM '09: Conference on Information and Knowledge Management Hong Kong China November, ACM*. 2009.
9. Susanne Boll, Steven C.H. Hoi, Jiebo Luo, Rong Jin, Irwin King, and Dong Xu. *First ACM SIGMM international workshop on social media (WSM'09), ACM*. 2009.
10. Irwin King and Ricardo Baeza-Yates. *Weaving Services and People on the World Wide Web*. Springer, July 20, 2009.
11. Kau-Zhu Huang, Haiqin Yang, Irwin King, and Michael R. Lyu. *Machine Learning: Modeling Data Locally and Globally (Advanced Topics in Science and Technology in China)*. Springer. September 10, 2008.
12. Shun-ichi Amari, Lei Xu, Lai-Wang Chan, Irwin King, and Kwong-Sak Leung. *Progress in Neural Information Processing. Volume 1: Proceedings of the International Conference on Neural Information Processing (ICONIP'96), Hong Kong*. Springer. November 1, 1997.

6.7 Book Reviews

1. Irwin King. Book reviews: *Advances in large margin classifiers*. *IEEE Transactions on Neural Networks*, 14(4):968–970, July 2003. IF(2003)=1.666.

7 KNOWLEDGE TRANSFER ACTIVITIES

7.1 Patents

1. Irwin King, Shenglin Zhao, Haiqin Yang, Michael Lyu, and Edward Yau. *Ranking Method for Point-of-Interest*. ZL 201510977723.1 (CN 106909560). January 12, 2021
2. R. J. Agrawal, I. King, and R. Zajac, *Methods, systems, and computer program products for integrated world wide web query classification* Google Patents, January 30, 2014.
3. Irwin King, Jimmy Ho-Man Lee, Patrick Lau, Chi Chung Mak, and Chi Chung Chan, *中大剽檢通, The Chinese University Plagiarism IDentification Engine (CUPIDE)*, Taiwan Patent No. I 368144, 2012.

4. Irwin King, Jimmy Ho-Man Lee, Tak-Pang Lau, Chi Chung Mak, and Chi Chung Chan, Sistema e 0 Methods for Detecting Similarity of Documents, Singapore patent 200804446-3, May 31, 2011.
5. Irwin King, Jimmy Ho-Man Lee, Patrick Lau, Chi Chung Mak, and Chi Chung Chan, 中大剽檢通, The Chinese University Plagiarism IDentification Engine (CUPIDE), Hong Kong Patent No. 09100342.6, 2010.
6. Irwin King, Jimmy Ho-Man Lee, Patrick Lau, Chi Chung Mak, and Chi Chung Chan, 中大剽檢通, Chinese Patent No. 200710105835.3, 2010.

7.2 Trademarks

1. Irwin King and Tak Pang Lau. VeriGuide. Trademark registered with the Hong Kong SAR Government, 2009.
2. Irwin King, Jimmy Lee, Patrick Lau, Chi Chung Mak, and Chi Chung Chan. CUPIDE (The Chinese University Plagiarism IDentification Engine). Trademark registered with the Hong Kong SAR Government, 2007.

7.3 Software Packages

1. Irwin King and Tak Pang Lau. The veriguide system. The Chinese University of Hong Kong, January 2009.
2. Irwin King, Jimmy Lee, and Tak Pang Lau. The Chinese University Plagiarism IDentification Engine (CUPIDE). The Chinese University of Hong Kong, September 2005.
3. Irwin King, Ada Fu, Laiwan Chan, and Lei Xu. Montage lite 1.0 (a content-based image retrieval system). The Chinese University of Hong Kong, 1997.
4. Irwin King. Gabor wavelet software package. The Chinese University of Hong Kong, 1997.

7.4 ITDC Montage Image Database Project and Related Information

7.4.1 Publications

1. Yang-Wahn Hew. Lab's new version of image database set of the market. South China Morning Post, Technology Section, September 1, 1998 page 3, 1998.
2. Irwin King and Laiwan Chan. Montage image search engine & dbms. The IT Magazine, pages 45–46, May 1998.
3. Grace Loo. Chinese University releases image management system. Computerworld, Hong Kong, XV(11):2, December 11 1997.
4. Creative local software. Ming Pao Daily, December 9 1997.
5. VIP Lab. Montage: Image database and management system. Network Today, pages 83–86, December 1997.
6. Hong Kong's Economic Times, Technology Section, October 1, 1997, page G9, 1997.
7. Hong Kong Standards, PC Market, October 8, 1997, page 14, 1997.
8. Hong Kong's Economic Times, Technology Section, April 9, 1997, 1997.
9. Lisa Lee. Company logistics and global sourcing: a leap onto the information highway. Journal for Asia on Textile & Apparel, 8(1):15–22, 1997.

7.4.2 Exhibitions & Demonstrations

1. Tom Hung and Catherine Chan. Montage : an image database system. Macau IT'98, January 14, 1998.
2. Montage image database. Software Exhibition'97, Hong Kong Convention and Exhibition Center, Wai Chai, Hong Kong, December 3-6, 1997.
3. Image management with Montage. Public Seminar at Software Exhibition'97, Hong Kong Convention and Exhibition Center, Wai Chai, Hong Kong, December 4, 1997.
4. Montage: An image database. Presentation at the Quick Response Center, Hong Kong, October 31, 1997.
5. Hong Kong Technology Week 1997, January 6-9, Hong Kong Convention and Exhibition Center, Wan Chai, Hong Kong.
6. RGC visit, June 1996, The Chinese University of Hong Kong, Shatin, NT, Hong Kong.

8 RESEARCH GRANTS

8.1 Competitive Grants

1. Co-PI, Tackling Grand Challenges in Food Safety: A Big Data and IoT Enabled Approach, RGC Research Impact Fund (RIF R5034-18), HKD \$917,600, June 2019-May 2024.
2. Co-PI, Multi-stage Big Data Analytics for Complex Systems: Methodologies and Applications, RGC Collaborative Research Fund (CRF C5026-18GF), HKD \$180,240, June 2019-June 2022.
3. PI, Graph Embedding in Knowledge Graphs for Medical Citation Networks, CUHK Research Sustainability of Major RGC Funding Schemes (RSFS 1819), HKD \$400,000, September 2019-August 2021.
4. PI, Generalized shared contextual features multi-armed bandit algorithms for recommender systems, RGC GRF HKD \$496,028.00, October 1, 2015 to September 30, 2018.
5. PI, Scalable tensor analysis with approximation algorithms for big data applications, RGC GRF HKD \$500,000.00, November 1, 2014 to October 31, 2017.
6. PI, An Investigation of Analyzing and Comparing MOOCs Platforms, MOE China CNY ¥500,000, Jan 1, 2016 to December 31, 2017.
7. PI, Knowledge and Education Exchange Platform (KEEP), UGC HKD \$15,000,000, August 1, 2017 to July 31, 2020.
8. PI, Knowledge and Education Exchange Platform (KEEP), UGC HKD \$15,000,000, July 1, 2015 to September 30, 2017.
9. PI, CUHK RAC allocated project - 2012/13 - funding support for Veriguide, CUHK HKD \$2,230,000.00, April 1, 2013 to September 30, 2015.
10. PI, Factorization-based on-line recommendation framework with social and location information, RGC GRF HKD \$500,000.00, September 1, 2012 to August 31, 2015.
11. PI, CUHK RAC allocated project - 2010/11 - bilingual assignment management system with plagiarism detection functions, CUHK HKD \$1,241,000, December 1, 2010 to December 31, 2013.
12. PI, Irrelevant data classification in semi-supervised learning for social computing applications, RGC GRF HKD \$858,500.00, July 1, 2010 to June 30, 2013.
13. Co-PI, Visible and infrared video integrated marking for augmented gesture extraction (vivid image) in digital entertainment, Innovation and Technology Fund (ITF), HKD \$999,660, 2009/9/1 to 2010/7/31. Reference No: ITS/069/09; Project Code: 6902710.
14. Co-PI, A collaborative machine learning framework for multi- media, Microsoft, HK \$98,000, June 25, 2009.
15. PI, The exploration of low density and manifold assumptions in semi-supervised learning, RGC GRF, HK \$310,677, June 2008.
16. Co-PI, Intelligent language games with social interactions: Models and applications, Microsoft, HK \$120,000, June 2008.
17. Co-PI, The hare election system and the cupide system, CUHK RAC, HK \$3,000,000, June 3, 2008.
18. Co-PI, Video processing toolkit for visual perception technology in computer games, Innovation and Technology Fund (ITF), HKD \$998,315, 2007.
19. PI, Theoretical investigation on kernel-based maximum a posteriori (MAP) classifiers under gaussianity assumption, RGC Earmarked Grant, HKD \$396,000, 2007.
20. Co-PI, FYP Archival, Support, and Tracking (FAST) System, Faculty Strategic Incentive Projects Fund, HKD \$180,000, 2007.
21. Co-PI, edPod Lecture Archival System, Faculty Strategic Incentive Projects Fund, 2007.
22. PI, The Croucher Foundation–2007 Beijing-Hong Kong Doctoral Forum, Croucher Foundation, HKD \$60,000, 2007.
23. Co-PI, Enabling face-to-face entertainment computing technology (effect), Innovation and Technology Fund (ITF), HKD \$1,000,000, 2006.
24. PI, Beijing-Hong Kong Doctoral Forum: Network and Multimedia Computing, CUHK RAC, HKD \$35,000, 2006.
25. PI, A Study of Kernel-based Discriminant Classifiers, CUHK Internal Direct Grant, HKD \$105,000, 2006.
26. Co-PI, The Chinese University Plagiarism IDentification System (CUPID), CUHK Internal, HKD \$152,000, 2005.
27. PI, Improving Optimization in the Minimum Error Minimax Probability Machine, CUHK Internal, HKD \$65,360, 2005.

28. Co-PI, Augmented reality computing arena for digital entertainment (ARCADE), ITF, HKD \$4,480,000, 2004.
29. PI, Theoretical and experimental research on biased classification using extensions of the minimax probability machine, RGC, HKD \$339,414, 2004.
30. PI, Target information estimation for relevance feedback framework in content-based image retrieval, RGC Earmarked Grant, HKD \$413,404, 2002.
31. PI, Distributed content-based image search engine, RGC Research Grant Direct Allocation, HKD \$150,000, 2002.
32. Co-PI, Where is the beef? data mining in high dimensional space, RGC Earmarked Grant, HKD \$401,917, 2001–2003.
33. Co-PI, An intelligent system for satellite meteorological data mining and its applications, Research Grants Council, Earmarked Grants, 1999–2000.
34. Co-PI, A portfolio management system for the Hong Kong market, Research Grants Council, Earmarked Grants, HKD \$600,000, 1999.
35. Co-PI, The design and analysis of stochastic clustering methods for generating indexing structure for information retrieval in image database applications, Hong Kong RGC Earmarked Grant, HKD \$ 786,000, 1999.
36. PI, An image database for content-based query and retrieval for the fashion and textile industry (montage), CUHK Internal Research Grant, HK \$144,000, July 1998.
37. Co-PI, Apparel manufacturing knowledge portal site, Industry Support Fund, HK \$3,100,000, 1999.
38. Co-PI, Electronic commerce front end for HK apparel industry community, Industry Support Fund (contract through HKUST), HKD \$250,000, September 1998.
39. Co-PI, Working model for intranet commerce in fabric sourcing and trading, Additional Funding for Industrial Support, HKD \$622,000, 1997.
40. Co-PI, Content-Based Image Retrieval of Classical Chinese Paintings and Calligraphy, Hong Kong RGC Earmarked Grant (competitive), HKD \$360,000, 1997.
41. Co-PI, A State Space Approach to Recurrent Neural Network, Hong Kong RGC Earmarked Grant (competitive), HKD \$360,000, 1997.
42. PI, Min/Max Entropy Principles for Unsupervised Visual Processing via Constrained Sigmoidal Neural Networks, CUHK Direct Grant, HKD \$100,000, 1996.
43. Co-PI, FACE: A face analysis and computing environment, Hong Kong RGC Earmarked Grant (competitive), HKD \$653,000, 1995.
44. Co-PI, Development of an Image Database for Hong Kong's Fashion Industry Supporting Content-Based Retrieval, Additional Funding for Industrial Support, HKD \$2,921,000, 1995.
45. Co-PI, Facial Expression Animation and Lip-Synchronization Using Anatomical Models in Reading Text in Cantonese and Mandarin, CUHK Direct Grant, HK \$50,000, 1994.
46. Co-PI, A Face Recognition System Using the Dynamic Link Architecture, CUHK Direct Grant, HKD \$100,000, 1993.
47. Co-PI, A Computational Model of Mammalian's Memory System, Chiap Hua Cheng's Foundation Fund, HKD \$2,800, 1993.
48. Co-PI, Spatial and appearance correlation of multi-view surveillance videos for in-store customer trace discovery and proactive selling, Innovation and Technology Fund (ITF).
49. Co-PI, Video capture and view construction for volume computing (vc3) in digital entertainment, Asia Media Technology Limited, HKD \$18,000.
50. Co-PI, Video capture and view construction for volume computing (vc3) in digital entertainment, Innovation and Technology Fund (ITF), HKD \$995,900.

8.2 Non-Competitive Grants

1. PI, Apple's WWDC Student Travel Grant 2009, Apple Computer Asia, HK \$15,600, July 2009.
2. Co-PI, Apple's WWDC Travel Grant 2008, Apple Computer Asia, HK \$46,000, June 2008.
3. PI, The Croucher Foundation–2007 Beijing-Hong Kong Doctoral Forum, Croucher Foundation, HKD \$60,000, 2007.
4. PI, Proceeding editing for the Theoretical Aspects of Neural Computation (TANC'97) Conference, Student Campus Work Scheme, CUHK, HKD \$2,750, 1997.
5. PI, WWW design and implementation for the Hong Kong Neural Computing and Intelligent System (HKNCIS) Forum, New Asia Student Campus Work Scheme, HK \$2,100, 1995.

6. PI, Clerical work for International Conference on Neural Information Processing (ICONIP'96), CUHK Student Campus Work Scheme, HKD \$4,500, 1995.
7. PI, An Integrative Environment for Artificial Neural Network Research, Strategic Research Grant, HKD \$40,000, 1994.
8. Co-PI, A study of coherent oscillations and phase-locking behavior in neural networks, China Scholar Exchange Grant, 1994.
9. PI, World-Wide Web Homepage for the Neural Network Group, New Asia Student Campus Work Scheme, HKD \$2,800, 1994.
10. Co-PI, Invitation of Professor Yan Ping Fan to visit CUHK, China Scholar Exchange Grant, 1994.

8.3 Project Contracts (HKD \$60.23 M as of August 2020)

1. PI, CLAP, CUHK HKD \$6,700,000, 2019-2020
2. Co-PI, AI Academy with HKJC, HKD \$8,407,000, 2019-2022
3. PI, KEEP 2.0, HKD 15,000,000, 2017-2020
4. PI, KEEP, HKD \$15,000,000, 2014-2017
5. PI, VeriGuide, 4720203, CUHK, HKD \$3,795,000.00, July 1, 2015 to June 30, 2017.
6. PI, VeriGuide, 4720181, CUHK, HKD \$2,230,000.00, April 1, 2013 to September 30, 2015.
7. PI, VeriGuide, 4720135, CUHK HKD \$1,241,000, December 1, 2010 to December 31, 2013.

8.4 Summary

Research

Account No.	Project Title	Start Date	End Date	Amount
44P5012	An Image Database for Content-Based Query and Retrieval for the Fashion and Textile Industry (Montage)	00000000	00000000	144000
2050091	Facial Expression Animation and Lip-Synchronization Using Anatomical Models in Reading Text in Cantonese and Mandarin	19941201	19960831	50000
2150062	FACE: A Face Analysis and Computing Environment	19950901	19980831	653000
2050135	Min/Max Entropy Principles for Unsupervised Visual Processing Via Constrained Sigmoidal Neural Networks	19961201	19981130	100000
2150142	Content-Based Image Retrieval of Classical Chinese Paintings and Calligraphy	19971201	20001130	36000
2150197	The Design and Analysis of Stochastic Clustering Methods for Generating Indexing Structure for Information Retrieval in Image Database Applications	19991201	20021130	786000
2050259	Distributed Content-Based Image Search Engine	20020101	20021231	150000
2150317	Target Information Estimation for Relevance Feedback Framework in Content-Based Image Retrieval	20020901	20050228	413404
2150422	Theoretical and Experimental Research on Biased Classification Using Extensions of the Minimax Probability Machine	20040901	20070228	339414
2050346	Improving Optimization in the Minimum Error Minimax Probability Machine	20051201	20071130	65360
2050379	A Study of Kernel-based Discriminant Classifiers	20070101	20081231	105000

2150526	Theoretical Investigation on Kernel-based Maximum a Posteriori (MAP) Classifiers Under Gaussianity Assumption	20071101	20091031	396000
4200173	Theoretical Investigation on Kernel-based Maximum a Posteriori (MAP) Classifiers Under Gaussianity Assumption - YANG Haixuan	20080201	20080731	54231.6
2150583	The Exploration of Low Density and Manifold Assumptions in Semi-supervised Learning	20080901	20100831	310677
4440100	The Exploration of Low Density and Manifold Assumptions in Semi-supervised Learning	20080901	20100831	20000
4200205	The Exploration of Low Density and Manifold Assumptions in Semi-supervised Learning - XU Zenglin	20090521	20091120	66204
2150668	Irrelevant Data Classification in Semi-supervised Learning for Social Computing Applications	20100701	20130630	846000
4440494	Irrelevant Data Classification in Semi-supervised Learning for Social Computing Applications	20100701	20130630	20000
4280025	Irrelevant Data Classification in Semi-supervised Learning for Social Computing Applications	20100901	20130831	20000
2050498	IMPROVING RECOMMENDER SYSTEMS BY INCORPORATING SOCIAL INFORMATION	20120101	20131231	60492
2150727	Factorization-based On-line Recommendation Framework with Social and Location Information	20120901	20150831	500000
4440828	Factorization-based On-line Recommendation Framework with Social and Location Information	20120901	20150831	20000
3230134	Corporate Leaders Analytics and Network System (CLANS): application of data mining in China's capital market for identifying social networks among corporations and business elites	20130801	20140731	200000
2150761	Scalable Contextual Learning Techniques for Big Data: Theory, Algorithms, and Applications	20140101	20161231	500000
4441037	Scalable Contextual Learning Techniques for Big Data: Theory, Algorithms, and Applications	20140101	20161231	20000
2150802	Scalable Tensor Analysis with Approximation Algorithms for Big Data Applications	20141101	20180430	500000
4441259	Scalable Tensor Analysis with Approximation Algorithms for Big Data Applications	20141101	20180430	20000
2150853	Generalized Shared Contextual Features Multi-armed Bandit Algorithms for Recommender Systems	20151001	20180930	496028
4441501	Generalized Shared Contextual Features Multi-armed Bandit Algorithms for Recommender Systems	20151001	20180930	20000
2410021	Tackling Grand Challenges in Food Safety: A Big Data and IoT Enabled Approach	20190601	20240531	642320
3133150	Tackling Grand Challenges in Food Safety: A Big Data and IoT Enabled Approach	20190601	20240531	275280

2300174	Multi-stage Big Data Analytics for Complex Systems: Methodologies and Applications	20190628	20220627	180240
3133238	RSFS - Graph Embedding in Knowledge Graphs for Medical Citation Networks	20190901	20210831	400000
	973.1 网络大数据复杂性分析和计算平台组合测试合同	2013	2014	110000
	973.5 网络大数据模式发现与效应分析测试合同	2013	2014	144000
	973.6 软硬一体化的网络大数据处理系统测试合同	2013	2014	98000
	MOE--基于国内外多个在线教育平台的分析和比较研究	20160101	20171231	500000
	新一代神经网络模型:小样本/弱标签/无标签学习	2019	2024	1530000
	Total			10.78 M

Education

Account No.	Project Title	Start Date	End Date	Amount
UGC	KEEP--Knowledge and Education Exchange Platform	20140701	20180331	15000000
4720203	RAC Allocated Project - 2015/17 - Funding Support for VeriGuide	20150701	20180930	3795000
CUHK, CO-I	TDLEG 2016-19, Understanding the Academic Pathways and Experiences of S ub-degree Transfer Students	20170101	20190630	600000
UGC	KEEP 2.0	20170901	20200831	15000000
4170495	TDLEG 2016-19 - Developing Meaningful Learning Analytics Enable Teaching Development	20170101	20190630	1164300
4170564	TDLEG 2016-19 - Online Micro-Modules Video Library Production for Fundamental Programming Courses	20180701	20190930	591212
4720235	RAC Allocated Project - 2018/20 - VeriGuide Bilingual Assignment Management System	20180701	20210831	4136000
CUHK	Project Impact Enhancement Fund (PIEF) for VeriGuide	20180701	20200531	100000
6905143	AI Academy with HKJC	20190801	20220731	8407000
7106028	Development on CLAP Portfolio "Infinity" Platform	20190301	20208310	1200000
	CLAP 2.0			6700000
4170653	TDLEG 2019-22 - Enhancing and Sustaining the KEEP Platform for ELITE Advancement	20200901	20220430	3541851
4170814	TDLEG 2019-22 - Artificial Intelligence (AI) for Collaborative Learning	20210201	20200430	200000
4170845	TDLEG-2019-22-VTL-VTL technology sandbox on Knowledge and Education Exchange Platform (KEEP)	20210301	20220630	516000

3212114	VTL Technology Sandbox on Knowledge and Education Exchange Platform	20210324	20230630	550000
3212119	VTL Support on KEEP VISUAL Framework	20210412	20230630	525000
	Total			62.02 M

Industry

Account No.	Project Title	Start Date	End Date	Amount
	AT&T Labs Research	2012	2013	160000
ITF	ITF--Open-source cloud-based SDK framework for location-based services	20141101	20151031	1399550
	富媒体大数据重点实验室			3000000
6903556	Microsoft Research Asia Grant - Scalable Learning of User's Reputation and Trust Relations with Social Media	20170101	20190630	116375
7010355	Huawei Technologies Company Limited - Survey of Techniques and Applications in Location Based Services	20180701	20190930	185660
7010445	Meitu (China) Limited - Generative Q&A Dialog	20181010	20190918	585000
	Amazon AWS Credit	20200701	20210630	400000
	Total			5.85 M

12 AWARDS AND HONORS

9.1 Research

- 2021 International Neural Network Society (INNS) Dennis Gabor Award
- ACM WSDM 2022 Test of Time Award for Hao Ma, Dengyong Zhou, Chao Liu, Michael R. Lyu, Irwin King: Recommender systems with social regularization. WSDM 2011: 287-296 (<https://www.wsdm-conference.org/2022/timetable/event/wsdm-awards-program-test-of-time-presentation/>)
- ACM SIGIR 2020 Xian Test of Time Award for Hao Ma, Irwin King, Michael R. Lyu: Learning to Recommend with Social Trust Ensemble. SIGIR 2009: 203-210 (<https://sigir.org/awards/test-of-time-awards/>).
- AI 2000 Most Influential Scholars (<https://www.aminer.org/ai2000>) for #34 in AAAI/IJCAI; #44 in Information Retrieval and Recommendation; #56 in Data Mining. CUHK CPRO (https://www.cpr.cuhk.edu.hk/en/press_detail.php?id=3236).
- ACM CIKM 2019 Beijing Test of Time Award for Hao Ma, Haixuan Yang, Michael R. Lyu, and Irwin King, SoRec: Social Recommendation Using Probabilistic Matrix Factorization, presented at CIKM 2008 (<http://www.cikmconference.org/cikmToTA.html>).
- CVPR 2019 Best Paper Finalist for Pengpeng Liu, Michael R. Lyu, Irwin King, Jia Xu: SelfFlow: Self-Supervised Learning of Optical Flow. CVPR 2019: 4571-4580.

7. ICONIP 2017 Best Paper Runner Up for Shenglin Zhao, Irwin King, Michael R. Lyu: Geo-Pairwise Ranking Matrix Factorization Model for Point-of-Interest Recommendation. ICONIP (5) 2017: 368-377.
8. ACM SIGIR and SIG Web Best Student Paper Runner-Up for Tong Zhao, Irwin King: Constructing Reliable Gradient Exploration for Online Learning to Rank. CIKM 2016: 1643-1652.
9. Hongbo Deng, Jiawei Han, Michael R. Lyu, and Irwin King. Modeling and Exploiting Heterogeneous Bibliographic Networks for Expertise Ranking, Vannevar Bush Best Paper Award, Joint Conference on Digital Libraries (JCDL2012), Washington D.C., USA, June 2012.
(<https://www.jcdl.org/awards.php>)
10. Man-Ching Yuen and Irwin King. Mathematical Modeling of Social Games, Best Paper Award, Proceedings of The 4th Beijing-Hong Kong International Doctoral Forum 2009, Best Paper Award in Web Intelligence and Social Computing, Hong Kong, August 2009.
11. Kaizhu Huang, Haiqin Yang, Irwin King, and Michael Lyu, Modeling Data Locally and Globally (Advanced Topics in Science and Technology in China), First ed., Zhejiang University Press with Springer Verlag, 2008. (Selected as One of The Top 100 books published in the field of Engineering in China's 第二屆“三個一百”原創出版工程表彰大會)
12. Best Poster Award, Expo: Excellence Online, eLearning Service with ITSC and CLEAR, The Chinese University of Hong Kong, 2007.

9.2 Teaching, Service, Competition, and Others

1. Irwin King. 2010 APNNA Excellent Service Award, Sydney, Australia, 2010.
2. Irwin King, Jimmy Lee, and Patrick Lau. WIKIs for building a collaborative education environment. Poster Commendation in EXPO: Excellence Online, 2008, CUHK, October 17, 2008.
3. Champion, Final Year Project Competition 2006-2007, Computational Intelligence Chapter (IEEE Hong Kong Section)
4. Bronze Prize, Challenge Cup, China, 2007.
5. Vice-Chancellor Cup of Student Innovation, Champion, Undergraduate Group Team, 2007
6. Irwin King. Faculty of Engineering Exemplary Teaching Award 2007, Engineering Faculty, The Chinese University of Hong Kong, 2007.
7. Irwin King. Department of Computer Science Departmental Service Award 2006, Department of Computer Science and Engineering, The Chinese University of Hong Kong, May 2006.
8. Irwin King. Department of Computer Science Departmental Teaching Award 2006, Department of Computer Science and Engineering, The Chinese University of Hong Kong, May 2006.
9. Irwin King. Faculty of Engineering Service Award 2006, Engineering Faculty, The Chinese University of Hong Kong, March 4, 2006.
10. Bronze Prize, Challenge Cup, China, 2005.
11. Champion, Final Year Project Competition 2004-2005, Computational Intelligence Chapter (IEEE Hong Kong Section)
12. Vice-Chancellor Cup of Student Innovation, Champion, Undergraduate Individual Team, 2005
13. Irwin King. Faculty of Engineering Exemplary Teaching Award 2003, Engineering Faculty, The Chinese University of Hong Kong, February 7, 2003.
14. Marquis Who's Whos in the World (27th Edition), USA, 2010.
15. International Who's Who of Professionals, USA, 1997.

10 VISITING AND GUEST PROFESSORSHIP

1. **Visiting Professor**, August 2011 - July 2012
School of Information
University of California, Berkeley, Berkeley, CA USA

11 EDITORSHIP

Current

1. Associate Editor, Neural Network Journal, 2010– present
2. Associate Editor, ACM Transactions on Knowledge Discovery in Data (ACM TKDD), 2011–2016

3. Book Series Editor, Social Media and Social Computing, Taylor and Francis (CRC Press), 2010–present
4. Editorial Advisory Board, ICT Ethics and Security in the 21st Century: New Developments and Applications, IGI Global, November 2009 – Present
5. Editorial Board, International Journal of Intelligent Computing and Cybernetics (IJICC), September 2007 – Present
6. Editorial Board, Journal of Nonlinear Analysis and Applied Mathematics, April 2006 – Present
7. Editorial Board, Neural Information Processing-Letters & Review (NIP-LR), 2004 – Present
8. Member of the Editorial Board, Web Intelligence and Web Science (WIWS), Higher Education Press, China

Former

1. Former Associate Editor, IEEE Transactions on Neural Networks (IEEE TNN), 2007–2011
2. Former Associate Editor, IEEE Computational Intelligence Magazine (IEEE CIM)
3. Editorial Board, The Open Information Systems Journal

Special Issues

1. Special Issue Guest Editor, Twitter and Microblogging Services, ACM TIST, 2011-2012
2. Special Issue Guest Editor, Web Intelligence, Neurocomputing, 2011
3. Special Issue Guest Editor, International Journal of Intelligent Computing and Cybernetics (IJICC), 2008
4. Special Issue Guest Editor, Neurocomputing, 2007
5. Special Issue Guest Editor, International Journal of Pattern Recognition and Artificial Intelligence, 2007
6. Special Issue Guest Editor, International Journal of Computational Intelligent Research (IJCIR), 2006

12 INVITED PRESENTATIONS/ LECTURES

Invited Presentations/ Lectures at Conferences, Workshops, Research Institutes and Universities (Total: 35+)

1. Invited Speaker, TTRN – CITRIS Summer Institute, NLP in Medicine and Healthcare, UC Davis, August 24-26, 2020.
2. Invited Speaker, Hong Kong AI Summit, Hong Kong, July 28, 2020
3. Invited Speaker, CSC532 Machine Learning, KMUTT, May 1, 2020
4. Invited Speaker, UGEB217, CUHK, March 19, 2020
5. Invited Speaker, Alibaba, Hangzhou, May 29, 2019
6. Invited Speaker, 粵港澳大湾区高校智慧教学与金课建设研讨会, June 28-29, 2019
7. Invited Speaker, Greater China MOOC Symposium (GCMS2019), SJTU, Shanghai, China, October 19, 2019
8. Invited Speaker, WCCI2018, Rio de Janeiro, Brazil, July 11, 2018
9. Invited Speaker, CUHK-MIT eLearning Workshop, June 1, 2018
10. Invited Speaker, National Chiao Tung University, June 19, 2018
11. Invited Speaker, INNS-CIIS 2018, Brunei, March 26, 2018.
12. Invited Speaker, Tsinghua University, January 26, 2018
13. Invited Speaker, APNNS Workshop, Thailand, February 1, 2018
14. Invited Speaker, Singapore, University of Technology and Design (SUTD), January 12, 2018
15. Invited Speaker, AntFinance, Alibaba, Hangzhou, November 28, 2017
16. Invited Speaker, ICONIP2017 Security and Privacy Workshop, Guangzhou, China, November 15, 2017
17. Invited Speaker, 台灣人工智慧年會 x 2017 台灣資料科學年會, Taipei, Taiwan, November 9-12, 2017
18. Invited Speaker, VINCI2017, KX KMUTT, Bangkok, Thailand, August 14-15, 2017
19. Invited Speaker, Taichung MOOC Event, April 22, 2017
20. Invited Speaker, International Workshop on Intelligent Optimization and Social Computing, Changsha, China, January 7-8, 2017
21. Invited Speaker, Microsoft Asia Faculty Summit 2016, Seoul, Korea, November 4, 2016

22. Invited Speaker, The 2nd International Conference on Behavioral, Economic and Socio- Cultural Computing (BESC 2015), Nanjing, China, October 30 - November 1, 2015.
23. Invited Speaker, 4th National Conference on Social Media Processing (SMP2015), 2015, Guangzhou, China, October 31, 2015.
24. Invited Speaker, Workshop on Web Education Technology 2015, Florence, Italy, May 19, 2015.
25. Invited Speaker, INNS-CIIS, Brunei, November 7-9, 2014.
26. Invited Speaker, INNS Workshop on Trends in Natural and Machine Intelligence (TNMI2012), Bangkok, Thailand, January 20, 2012.
27. Invited Speaker, The Moving Target of Mobile User Modeling, UMWA2011 Workshop at WSDM2011, Hong Kong, February 9, 2011.
28. Invited Speaker, Future Generation Information Technology 2009 (FGIT2009), Jeju Island, South Korea, December 10-12, 2009.
29. Invited Talk at The Tsinghua-CUHK Joint Research Center, Shenzhen, China, November 27, 2009.
30. Invited Talk, Forum on CyberSpace and Social Computing (CyberSocialCom-09), Vaton Yunqi Resort Hotel, Hangzhou, China, November 9, 2009.
31. Invited Talk, The 7th Chinese Workshop on Machine Learning and Applications (MLA'09), Nanjing University, Nanjing, China, November 6-8, 2009.
32. Invited Speaker, International Workshop on Multimedia Technologies for Education(IWMTE2009), Taipei, Taiwan, June 26, 2009.
33. Plenary, 16th International Conference on Systems, Signals and Image Processing (IWS- SIP2009), Chalkida, Greece, June 18-20, 2009.

13 KEYNOTE SPEECHES/ DISTINGUISHED LECTURES

Keynotes/Distinguished Lectures (Total: 25+)

1. Distinguished Lecture of Class Acts Online Talk, A Traveler's Guide to the 3-Pound Universe, CUHK, March 25, 2020.
2. Keynote, International Conference on Software and Computer Applications (ICSCA2020), Langkawi, Malaysia, February 18-21, 2020
3. Keynote, The 4th International Conference on Machine Vision and Information Technology (CMVIT 2020), Sanya, Hainan, China, February 20-22, 2020
4. Keynote, The 18th International Conference on Web-based Learning (ICWL2019), Magdeburg, Germany, September 23-25, 2019
5. Distinguished Speaker, CUHKSZ, February 7, 2018
6. Keynote, The 2nd International Conference on Machine Vision and Information Technology (CMVIT 2018), Hong Kong, June 23-25, 2018
7. Keynote, ICIETT2017, Phuket, Thailand, October 12-13, 2017
8. Keynote, International Conference on Neural Information Processing (ICONIP2016), Kyoto, Japan, October 16-21, 2016.
9. Keynote, The 19th Asia Pacific Symposium on Intelligent and Evolutionary Systems (IES 2015), Bangkok, Thailand, November 22-25, 2015.
10. Keynote, International Conference on Neural Information Processing (ICONIP2016), Kyoto, Japan, October 16-21, 2016.
11. Keynote, Ninth International Symposium on Multispectral Image Processing and Pattern Recognition (MIPPR 2015), Enshi, China, October 30 - November 1, 2015.
12. Invited Speaker, The 2nd International Conference on Behavioral, Economic and Socio-Cultural Computing (BESC 2015), Nanjing, China, October 30 - November 1, 2015.
13. Invited Speaker, 4th National Conference on Social Media Processing (SMP2015), 2015, Guangzhou, China, October 31, 2015.
14. Invited Speaker, INNS-CIIS, Brunei, November 7-9, 2014.
15. Keynote, The 19th Asia Pacific Symposium on Intelligent and Evolutionary Systems (IES 2015), Bangkok, Thailand, November 22-25, 2015.
16. Keynote, Ninth International Symposium on Multispectral Image Processing and Pattern Recognition (MIPPR 2015), Enshi, China, October 30 - November 1, 2015.
17. Keynote, International Workshop on Advanced Image Technology (IWAIT 2015), Tainan, Taiwan, January 12, 2015.

18. Keynote, The 6th International Conference on Advances in Information Technology (IAIT2012), Bangkok, Thailand, October-November, 2012.
19. Keynote, Workshop on Transfer Learning for Information Retrieval and Web Mining, World Wide Web Conference (WWW2012), Lyon, France., April 16-20, 2012
20. Keynote, The 5th Conference on Intelligent Systems and Knowledge Engineering (ISKE2010), Hangzhou, China, November 15-16, 2010.
21. Keynote, The 2nd International Workshop on Education Technology and Computer Science (ETCS2010), Wuhan, China, March 6-7, 2010.
22. Keynote, 2009 International Symposium on Education and Computer Science (ECS2009), Wuhan, China, March 7-8, 2009.
23. Keynote, The International Workshop on Multimedia Technologies for Education (IWMTE2009), Taipei, Taiwan, June 26, 2009.
24. Keynote, The 16th International Conference on Systems, Signals and Image Processing (IWSSIP'09), Chalkida, Greece, June 18-20, 2009.
25. Keynote, The 2009 International Symposium on Education and Computer Science (ECS2009), Wuhan, China, March 7, 2009.

14 CONFERENCE ORGANIZATION

1. Honorary Co-Chair, The 27th International Conference on Neural Information Processing (ICONIP2020), Bangkok, Thailand, 2020.
2. General Co-Chair, The 26th International World Wide Web Conference (WWW2020), Taipei, Taiwan, 2020.
3. Organizing Committee Co-Chair, The 4th Greater China MOOC Symposium (GCMS2017), Hong Kong, July 20-21, 2017.
4. General Co-Chair, The 7th Asian Conference on Machine Learning (ACML2015), Hong Kong, November 20-22, 2015.
5. General Co-chair, The 7th ACM Conference on Recommender Systems (RecSys 2013), Hong Kong, October 12-16, 2013
6. General Co-Chair, International Conference on Social Computing and Applications (SCA2012).
7. General Co-Chair, The 2012 International Conference on Advances in Social Networks Analysis and Mining (ASONAM2012), Istanbul, Turkey, August 26-29, 2012.
8. Tutorial Co-Chair, World Wide Web Conference (WWW2012), April 16-20, 2012, Lyon, France
9. PC Co-Chair, The 7th International Conference on Advanced Data Mining and Applications (ADMA 2011), Beijing, China, December 16-18, 2011.
10. General Co-Chair, The 4th IEEE International Conference on Cyber, Physical and Social Computing (CPSCom 2011), Dalian, China, October 19-22, 2011.
11. Vice-Program Chair, The 8th International Conference on Mobile Web Information Systems (MobiWIS), Niagara Falls, Ontario, Canada, September 19-21, 2011.
12. Program Co-Chair, IEEE (SSCI) Symposium Series on Computational Intelligence and Data Mining (CIDM2011), Paris, France, April 11-15, 2011.
13. General Chair, International Conference on Web Search and Data Mining (WSDM2011), Hong Kong, February 9-12, 2011.
14. Vice-Program Chair, The 8th International Conference on Mobile Web Information Systems (MobiWIS), Niagara Falls, Ontario, Canada, September 19-21, 2011.
15. Program Co-Chair, IEEE Symposium on Computational Intelligence and Data Mining (CIDM2011), Paris, France, April 2011.
16. Program Co-Chair, The 2010 Conference on Technologies and Applications of Artificial Intelligence (TAAI2010), Hsinchu, Taiwan, November 18-20, 2010.
17. Workshop Co-Chair, The 16th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD2010), Washington DC, USA, August, 2010.
18. General Co-Chair, Workshop on Social Media and Web. 2.0 to be held in conjunction with The 6th International Conference on Intelligent Environments (IE'10), Kuala Lumpur, Malaysia, July 19-21, 2010.
19. General Co-Chair, Workshop on Social Computing in Education (WSCE2009), in conjunction with SocialComp'09.

20. General Co-Chair, The Fourth BJ-HK Doctoral Forum (BJ-HK PhD Forum 2009), August 6-10, 2009, Hong Kong.
21. General Co-Chair, Workshop on Social Web Search and Mining, in conjunction with CIKM2009.
22. Program Co-Chair, The first SIGMM Workshop on Social Media (WSM2009) in conjunction with ACM Multimedia 2009 (ACM MM'09), Beijing, China, October 19-24, 2009.

15 PROFESSIONAL SOCIETY ACTIVITIES

15.1 Professional Qualification and Membership

1. Institute of Electrical and Electronic Engineering (IEEE) - Computer & Neural Network Societies, Member: 1986–2008; Senior Member: 2008–2018; Fellow: 2019–present.
2. Association of Computing Machinery (ACM), Member: 1996–present; Distinguished Member: 2019–present.
3. International Neural Network Society (INNS), Member: 1994–1998; 2009–present.
4. Asia Pacific Neural Network Assembly (APNNS), Member: 1994–present.
5. Hong Kong Institution of Engineers (HKIE), Fellow: 2013–present.
6. Hong Kong Society for Multimedia and Image Computing (HKSMIC), Member: June 1997–present.
7. International Society for Optical Engineering, SPIE, Member: June 1997–present.
8. International Who's Who of Professionals, 1997–1998, 2010-2011.
9. New York Academy of Sciences, Member 1995–1997.

15.2 Society Activities

1. President, International Neural Network Society (INNS), 2019 – 2020
2. Vice-President Pro Tempore of Education, Board of Governors, International Neural Network Society (INNS), 2017 – 2019
3. Vice-President of Membership, Board of Governors, International Neural Network Society (INNS), 2011–2016
4. Vice-President and Member of Governing Board, Asia Pacific Neural Network Assembly (APNNS), 2004–2021
5. Chair, Task Force on the Future Directions of Neural Networks (IEEE CIS), 2009 – Present
6. Chair, SIG and Regional Chapters Committee for Asia and the Pacific, (INNS), 2007 – Present
7. Technical Committee Member, IEEE Computational Intelligence Society (CIS) Neural Networks Technical Committee
8. Technical Committee Member, IEEE Computational Intelligence Society (CIS) Data Mining Technical Committee
9. Former Member of Review Panel of the Natural Science, and Engineering of Academy of Finland
10. Former Member of Review Panel of the Natural Sciences and Engineering Research Council of Canada (NSERC)
11. Former Engineering Panel Member, RGC Engineering Panel and NSFC/RGC Joint Research Scheme Committee, Hong Kong SAR Government

16 POSTGRADUATE STUDENTS

(Please refer to the Teaching File for further details)

16.1 Graduated PhD students (Total: 29)

1. Yifan Gao (co-supervise with Michael R. Lyu). Teaching Machines to Ask and Answer Questions. PhD thesis. The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, 2021.
2. Weibin Wu (co-supervise with Michael R. Lyu). On the Robustness and Interpretability of Deep Learning Models. PhD thesis. The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, 2021.
3. Wenxiang Jiao (co-supervise with Michael R. Lyu). Effective Training with Data Engineering for Language Understanding and Generation. PhD thesis. The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, 2021.

4. Wang Chen. Text Summarization with Different Granularities. PhD thesis. The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, September 2021.
5. Ken Hou-pong Chan. Learning to Summarize Text Documents. PhD thesis. The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, 2020.
6. Pengpeng Liu (co-supervise with Michael R. Lyu). Self-Supervised Learning of Dense Correspondence. PhD thesis. The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, 2021.
7. Jiani Zhang. Exploring Deep Learning Architectures for Graph Applications. PhD thesis. The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, 2020.
8. Yue Wang (co-supervise with Michael R. Lyu). Neural Keyphrase Generation for Social Media Understanding. PhD thesis. The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, 2020.
9. Jichuan Zeng (co-supervise with Michael R. Lyu). Latent Variable Modeling for Natural Language Understanding. PhD thesis. The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, September 2019.
10. Yuxin Su (co-supervise with Michael R. Lyu). Distributed Distance Learning Algorithms and Applications. PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, September 2019.
11. Xiaotian Yu (co-supervise with Michael R. Lyu). Efficient Learning in Stochastic Bandits. PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, May 2019.
12. Xixian Chen (co-supervise with Michael R. Lyu). Randomized Algorithms for Machine Learning. PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, February 2018.
13. Shenglin Zhao (co-supervise with Michael R. Lyu). Point-of-interest Recommendation in Location-based Social Networks. PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, November 2017.
14. Hongyi Zhang (co-supervise with Michael R. Lyu). Exploring and Modeling the Relationship Between Links and Communities for Overlapping Community Detection. PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, September 2017.
15. Tong Zhao. Learning to Search and Recommend from Users' Implicit Feedback. PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, February 2017.
16. Man-Ching Yuen. Task Recommendation in Crowdsourcing Systems. PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, June 2016.
17. Chen Cheng (co-supervise with Michael R. Lyu). Learning to Recommend with Location and Context PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, September 2015.
18. Guang Ling (co-supervise with Michael R. Lyu). Learning to Improve Recommender Systems PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, March 2015.
19. Shouyuan Chen (co-supervise with Michael R. Lyu). Learning with Limited Samples PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, October 2014.
20. Baichuan Li (co-supervise with Michael R. Lyu). A Computational Framework for Question Processing in Community Question Answering Services PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, February 2014.

21. Zhou Chao (co-supervise with Michael R. Lyu). Learning with Social Media PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, April 2013.
22. Xin Xin (co-supervise with Michael R. Lyu). Effective Fusion-based Approaches for Recommender Systems PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, July 2011.
23. Zhenjiang Lin (co-supervise with Michael R. Lyu). Link-based Similarity Measurement Techniques and Applications PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, September 2011.
24. Haiqin Yang (co-supervise with Michael R. Lyu). Sparse Learning Under Regularization Framework PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, January 2011.
25. Hao Ma (co-supervise with Michael R. Lyu). Learning to Recommend. PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, December 2009.
26. Hongbo Deng (co-supervise with Michael R. Lyu). Web Mining Techniques for Query Log Analysis and Expertise Retrieval. PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, September 2009.
27. Zenglin Xu (co-supervise with Michael R. Lyu). Learning with Unlabeled Data. PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, January 2009.
28. Haixuan Yang (co-supervise with Michael R. Lyu). Machine Learning Models on Random Graphs. PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, September 2007.
29. Kaizhu Huang (co-supervise with Michael R. Lyu). Learning From Data Locally and Globally. PhD thesis, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, September 2004.

16.2 Graduated MPhil students (Total: 24)

1. Han Shao (co-supervise with Michael R. Lyu), August 2016 - 2019. Linear Stochastic Bandits with Heavy-Tailed Payoffs. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, June 2019.
2. Junjie Hu (co-supervise with Michael R. Lyu). Kernelized Online Imbalanced Learning. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, June 2015.
3. Priyanka Garg (co-supervise with Michael R. Lyu). Impact of Opinions in Social Networks. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, July 2012.
4. Dingyan Wang. Graph-based recommendation with label propagation. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, September 2011.
5. Wei Wang. Ranking and Its Application on Web Search. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 2011.
6. Mingzhen Mo. Attack and Protection Issues in Online Social Networks. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 2011.
7. Yi Zhu. Commercial Intention Detection on Twitter. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, September 2011.
8. Kam Tong Chan. Improving opinion mining with feature-opinion association and human computation. Master's thesis, Department of Computer Science and Engineering, The Chinese

- University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, September 2009.
9. Xiang Peng. Biased classification for relevance feedback in content-based image retrieval. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 2007.
 10. Tak Pang Lau. Chinese readability analysis and its applications on the internet. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 2006.
 11. Wan Yeung Wong. Information retrieval and query routing in peer-to-peer networks. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 2005.
 12. Chi-Hang Chan. Using biased support vector machine in image retrieval with self-organizing map. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 2004.
 13. Shi Lu (co-supervise with Michael R. Lyu). Content analysis and summarization for video documents. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 2004.
 14. Haiqin Yang. Margin variations in support vector regression for the stock market prediction. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 2003.
 15. Cheuk-Hang Ng. Peer clustering and firework query model in peer-to-peer networks. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 2003.
 16. Richard Sia. Content-based image retrieval: Reading one's mind and helping people share. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 2003.
 17. Wan Zhang. Fast training of svm with β -neighbor editing. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 2003.
 18. Chi-Wai Lee (co-supervise with Michael R. Lyu). A web-based agent service platform for e-commerce applications. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 2001.
 19. Ho-Yin Yue. Fuzzy clustering for content-based indexing in multimedia database. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 2001.
 20. Yuk Ming Chan. Shape-based image retrieval in iconic image databases. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 1999.
 21. Tak Kan Lau. Rival penalized competitive learning for content-based indexing. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 1998.
 22. Yin Bun Wong. A probabilistic cooperative-competitive hierarchical search model. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 1998.
 23. Lun Hsing Tung. A two-stage framework for polygon retrieval. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 1997.
 24. Wai Kit Chan. Application of temporal difference learning and supervised learning in the game of go. Master's thesis, Department of Computer Science and Engineering, The Chinese University of Hong Kong, Department of Computer Science and Engineering, CUHK, Shatin, NT, August 1996.

16.3 Current PhD Students (Total: 11)

1. Minda Hu, February 2022 - Present
2. Zhihang Hu (co-supervise with Yu Li), August 2021 - Present
3. Conghao Xiaong (co-supervise with Joseph Sung), August 2021 - Present

4. Zixing Song, August 2020 - Present
5. Yifei Zhang, August 2020 - Present
6. Yankai Chen, August 2019 - Present
7. Menglin Yang, August 2019 - Present
8. Xinyu Fu, August 2018 - Present
9. Ziqiao Meng, August 2018 - Present
10. Jingjing Li (co-supervise with Michael R. Lyu), August 2017 - Present
11. Yaoman Li, August 2016 - Present

16.4 Current MPhil Students (Total: 1)

1. Tianyu Liu, August 2019 - Present

16.5 Postdoctoral Research Associates and Fellows

1. Dr. Haiqin Yang, Machine Learning, 2011–2016.
2. Prof. Guosheng Wang, Machine Learning, 2010–2011.
3. Dr. Zhirong Yang, Machine Learning, 2009–2009.
4. Dr. Zenglin Xu, Machine Learning, 2008–2009.
5. Dr. Kaizhu Huang, Machine Learning, 2007–2008.
6. Dr. Haixuan Yang, Machine Learning, 2008–2008.
7. Dr. Fang-Yong Duan, Digital Watermarking, 1997–1998.
8. Dr. Xiao-Feng Liao, Analysis of Rival Penalized Competitive Learning, 1997–1998.
9. Dr. Ajeroh Donald Asogu, Image Sequence Segmentation for Multimedia Applications, 1997–1998.
10. Dr. Bai-Ling Zhang, A Face Recognition System Using the Dynamic Link Architecture, 1994–1995

17 INTERNAL SERVICE

17.1 Department

1. Chair, Department of Computer Science and Engineering, The Chinese University of Hong Kong, August 2020–present
2. Chair, Curriculum Committee, Department of Computer Science and Engineering, The Chinese University of Hong Kong, 2006–2009.
 - a. Double degree programme with the BBA Faculty of CUHK-Represented the Department to design and implement the programme and curriculum
 - b. Outcomes-based Approach Teaching-Led the effort in transforming the department to a more Outcomes-Based Approach (OBA) teaching curriculum since 2006. He organized and conducted an OBA workshop for the department.
 - c. Programme Review - He was an instrumental member in the department's Programme Review exercise in 2008 that received a high remark from the University.
 - d. HKIE Accreditation 2009 - Heavily involved with the Hong Kong Institute of Engineers' (HKIE) accreditation process in 2009 that resulted in accreditation for both the Computer Science and Computer Engineering Programmes.
 - e. 334 Curriculum - Led the committee in formulating the faculty package and department's curriculum for 2012.
 - f. Streamlining Programme Courses - Reorganized the basic programming courses to provide a more complete set of courses for CSE students and service courses for students from other departments.
 - g. Survey and Benchmarking - Conducted benchmarking with other curricula from other universities.
3. Chair, Accreditation Task Force, Department of Computer Science and Engineering, 2008– 2009
4. Representative, University General Education, The Chinese University of Hong Kong, 2007– Present
5. Member, Programme Review Task Force, Department of Computer Science and Engineering, 2006–2007
6. Member, EXCO, Department of Computer Science and Engineering, 2006–2007
7. Graduate Panel, 2002 – 2006.
8. Library Committee, 1994 – 2005.
9. Coach of the CS&E department's ACM Programming Contest team, 1998–2006. Led a team to a third-placed finish (out of 22) in the Asia-Pacific Regional Contest held at the Waseda University, Japan in November 1998.
10. Working with the Central Library to set up a book approval program in order to speed up book purchasing, December 1997.
11. 4812. Founding member of the Multimedia Information Processing Lab (MIP Lab), 2000.
12. Founding member of the Visual Information Processing Lab (VIP Lab), 1995.
13. Founding member of the Neural Computing and Engineering Lab (NCEL), 1994.
14. Deputy Director of the SGI Visualization Research Center, June 1996 – present.
15. Member of the Computer Users Group, 1995 – present.
16. Chairperson of the Library Committee, 1993 – 2003.
17. Working Group responsible for the Ho Sin-Hang Engineering Building's display booth for the CS department, 1994 – 1995.
18. Internal marker to Final Year Projects.
19. Internal marker to M. Phil. theses.
20. Internal marker to Ph.D. theses.

17.2 Faculty

1. Associate Dean (Education), Engineering Faculty, August 2013-July 2019.
2. Member, Engineering Faculty Board, The Chinese University of Hong Kong, 1 August 2009 to 31 July 2011
3. Member, Engineering Faculty Board, The Chinese University of Hong Kong, 1 August 2009 to 31 July 2011
4. Director, Engineering International Programmes (ERGIP), Faculty of Engineering, The Chinese University of Hong Kong, 2004–Present Here is a list of the events in the past few years.

- a. Hosted President Mamdouh Shoukri, York University, Canada, November 9, 2009
 - b. Hosted Dean Peter Crouch and AD Song Choi, University of Hawaii, USA, October 15, 2009
 - c. Briefing Session for International Programmes, October 9, 2009, 50+ students
 - d. Hosted Herman, Mo-How Shen, Ohio State University, USA, June 23, 2009
 - e. Briefing Session for International Programmes, October 14, 2008, 50+ students
 - f. Meeting with Mr. Pierre Baladi, Deputy Director of International Affairs, MINES ParisTech, April 14, 2009
 - g. Visiting IST, Lisbon, Portugal, April 17, 2009
 - h. Hosted a group of 26 Computer Science students from KTH, June 9, 2009
 - i. Hosted Mario Rosario of IST, Portugal, February 23, 2009
 - j. Interview for OAL, November 21, 2008
 - k. Summer intern programme w/ OALC, August 1, 2008
 - l. Hosted a visit by Waseda University, Japan, June 9, 2008
 - m. Hosted Lester Gerhardt, RPI, USA, March 20, 2008
 - n. Hosted Cambridge, Loyola Marymount University, USA, March 12, 2007
 - o. Hosted Santi Giraldo, Embry-Riddle Aeronautical University, USA, March 8, 2007
 - p. Hosted SY Kuo, National Taiwan University of Science and Technology, August 1, 2006
 - q. Hosted Rice University, USA, June 27, 2006
 - r. Hosted Prof. Richard Comley, Middlesex University, UK, November 17, 2005
 - s. Hosted Prof. Tanya Zlateva, Boston University, USA, June 28, 2005
 - t. Hosted Korea University, Korea, June 21, 2005
 - u. Hosted President of Henri Poincare University, France, May 23, 2005
 - v. Hosted Marco Federighi, University College London, UK, January 17, 2005
5. Member, Faculty Curriculum Committee, 2006–2009
 6. Member, Committee on Teaching and Learning, 2007–2009
 7. Member, Academic Committee, CUHK MoE-Microsoft Key Laboratory of Human-Centric Computing and Interface Technologies, 2008–Present
 8. Member of the Faculty Board, August 2001 – July 2007; August 2009–Present.
 9. Member of the Working Committee of the Innovative Technology Fair 1999, April 30-May 1, 1999, The Chinese University of Hong Kong.
 10. Chairperson of the Faculty Library Committee, 1994 – 2004.
 11. Member, Working Group for the Opening of Ho Sin-Hang Engineering Building (November 1993 – January 1994).
 12. Working Group on the Proficiency of English Language (August 1993).
 13. Category (d) Member of Board/Committee of Studies (August 1993)

17.2.1 Summary of Selected Achievements as Associate Dean (Education) from 2013-2016

Here is a summary of selected achievements as Associate Dean (Education) from 2013-2019.

17.2.1.1 Curriculum

1. Created the Faculty Teaching and Learning Committee (FTLC) to oversee, monitor, and evaluate the curriculum.
2. Designed the Mathematics Placement Test, which is for all engineering undergraduates.
3. Designed the Physics Placement Test, which is for all engineering undergraduates.
4. Launched the bi-yearly course housekeeping exercise. In two rounds of exercise, inactivated over 300 dormant courses. Made sound policies for introduction of new courses to avoid overlapping, e.g., double-coded courses, and reducing teaching manpower.
5. Coordinated the provisional accreditation in 2016 and then full accreditation in 2019.
6. Redesigned the practicum, ethics, and safety requirements to free up more courses for major programmes.
7. Conducted extensive review of engineering mathematics courses and re-design the Faculty Package and foundation courses.
8. Set-up the Faculty media lab to expedite the implementation of micro-modules and flipped teaching.
9. Design the logistics and arrangement of class visits for faculty foundation courses.
10. Launch the online repository platform for departments to archive their final year projects.

11. Nurtured and developed a number of UGC teaching award candidates.
12. Nurtured and promoted teaching and learning activities such as TALENTS, seminars, expo, symposium, etc.
13. Created the ENGG5700 Engineering Entrepreneurship course and brought students to Silicon Valley, Pearl River Delta, and Taiwan to learn about entrepreneurship.

17.2.1.2 New Programmes

1. Created the ELITE Stream - the first Stream could be officially recorded on University transcript in 2014. Full operation at the Faculty level and maintains the average number of participants of around 220.
2. Created the first University-level Stream in Data Analytics in 2014.
3. Created the first Faculty-Level Minor programme in Data Analytics and Informatics in 2016.
4. Created the MSc programme in Financial Engineering, which is the first inter-disciplinary programme and fully managed at Faculty level in 2019.
5. Created the UG programme in Financial Engineering, which is the first inter-disciplinary programme and fully managed at Faculty level in 2017.
6. Created the UG programme in Artificial Intelligence: Systems and Technologies, which is the first inter-departmental Engineering programme of its kind in HK in 2019.
7. Created the Dual Degree Programme with Peking University (FinTech Programme) and Tsinghua University (Computer Science) in 2019.

17.3 College

17.3.1 Lee Woo Sing College (LWSC)

1. Member, Student Advisory and Disciplinary Committee, Lee Woo Sing College, 2020–Present.
2. Chair, Strategic Information Technology Committee (SITC), Lee Woo Sing College, 2016-Present.
3. Fellow, Lee Woo Sing College, 2016-Present.

17.3.2 New Asia College (NAC)

1. Member, General Education Committee, 1996–present.
2. Member, New Asia Staff Association Committee, 2002-2004.
3. Computer Science & Engineering Coordinator for the New Asia College, 1996, 2001.
4. Instructor, STOT General Education Class, September 1993 (10); September 1996 (19), 1999, 2002, 2006, 2009

17.4 University

1. Member of the Senate, 2020--2023
2. Category (2) Member of the MAE Board for 2020-21
3. CUHK-Shenzhen, A member of School of Data Science (SDS) School Academic Personnel Committee (SAPC)
4. Publication Ethics Committee, 2020-2022
5. Global Engagement Working Group for CUHK Strategic Plan 2021-2025
6. Education Working Group for CUHK Strategic Plan 2021-2025

Major Projects

1. **Principal Investigator, Knowledge and Education Exchange Platform (KEEP), The Chinese University of Hong Kong, 1994--Present**

The Knowledge and Education Exchange Platform (KEEP) KEEP is an e-learning platform that educational resources can be shared, searched, and made accessible to target users. The platform strives to facilitate local educators to practice eLearning, eventually enhancing their teaching effectiveness. Over 43,000 users are using KEEP and 65,000 online courses are searchable on KEEP.

2. **Principal Investigator, Chief Technologist and Co-Founder, The VeriGuide System, The Chinese University of Hong Kong, 2004–Present.**

VeriGuide System. The VeriGuide is a plagiarism identification engine for detecting similar text among English and Chinese documents. It was commissioned by the Chinese and has been in operation since 2005. It has been adapted by the CUHK's Senate to be a mandatory system used to promote academic integrity and quality. It now serves the 14,000+ CUHK community at large. Moreover, we are also serving the Hong Kong Shue Yan University (HKSJU) with over 4,000+ staff and students.

18 EXTERNAL SERVICE

18.1 Panel Members

1. Former Member, Engineering Panel, Research Grants Councils (RGC), Hong Kong SAR Government, 2005–2012.
2. Former Panel Member, National Natural Science Foundation of China (NSFC)/Hong Kong Research Grants Council (RGC) Joint Research Scheme Joint Selection Committee, 2006-2007
3. Former Chair, Task Force on External Reviewers Database, Hong Kong Research Grants Council (RGC), Hong Kong SAR Government, 2006-2007
4. Former Member, Public Policy Grant Panel Member, Research Grants Councils (RGC), Hong Kong SAR Government, 2006–2007.
5. Former Member, Executive Committee of the IEEE (Hong Kong) Computer Chapter, 1998.
6. Former External Examiner, The Open University of Hong Kong, 2005
7. Former Member, Continuing Education Committee, YMCA of Hong Kong, 2004-2010
8. Former External Assessor, Hong Kong Applied R & D Fund Co. Ltd., August 1994.
9. Former Reviewer, RGC Earmarked Grants
10. Former Member, CIS Outstanding Chapter Award Subcommittee, (IEEE CIS)
11. Former Member of Review Panel of the Natural Science, and Engineering of Academy of Finland
12. Former Member of Review Panel of the Natural Sciences and Engineering Research Council of Canada (NSERC)
13. Former Member of RGC Engineering Panel, The Hong Kong SAR Government
14. Former Member of Joint Research Scheme (JRS) Panel under RGC, The Hong Kong SAR Government

18.2 Journal Reviewer/Referee

1. IEEE Signal Processing Letter (IEEE SPL)
2. IEEE Transactions on Circuits and Systems (IEEE TCAS)
3. IEEE Transactions on Knowledge and Data Engineering (IEEE TKDE)
4. IEEE Transactions on Multimedia (IEEE TMM)
5. IEEE Transactions on Neural Networks (IEEE TNN)
6. IEEE Transactions Parallel and Distributed System (IEEE TPDS)
7. IEEE Transactions on Pattern Analysis and Machine Intelligence (IEEE PAMI)
8. IEEE Transactions on System, Man, and Cybernetics, Part B (IEEE SMC-B)
9. Information Fusion
10. International Journal of Computer Vision
11. International Journal of Pattern Recognition and Artificial Intelligence (IJPRAI)
12. Journal of Machine Learning Research (JMLR)
13. Machine Vision and Applications
14. Pattern Recognition
15. Pattern Recognition Letter
16. Real-Time Imaging
17. SPIE Journal of Electronic Imaging

18.3 Conference Area Chair, Senior PC, and PC

Area Chair (AC)

1. AC, Thirty-Fifth AAAI Conference on Artificial Intelligence 2021

Senior Program Committee (SPC) Member

1. SPC, The WebConf 2021, Slovenia
2. SPC, CIKM 2020
3. SPC, AAAI 2018

Program Committee (PC) Member

- | | | |
|------------------|---------------------|---------------------|
| 1. PC, AAAI 2020 | 3. PC, EMNLP2020 | 5. PC, LWMOOCs 2020 |
| 2. PC, SNAA 2020 | 4. PC, NeurIPS 2020 | 6. PC, ACL 2020 |

7. PC, ICLR 2019
8. PC, ACL 2019
9. PC, NeurIPS 2018
10. PC, ICONIP 2018
11. PC, EMNLP 2018
12. PC, ASONAM 2018
13. PC, IJCAI 2018
14. PC, IJCNN 2018
15. PC, NeurIPS 2017
16. PC, SIGIR 2017
17. PC, ASONAM 2016
18. PC, ACL 2016
19. PC, KDD 2016
20. PC, KDD 2015
21. PC, SIGIR 2015
22. PC, ICKM 2014
23. PC, NIPS 2014
24. PC, ICWSM 2014
25. PC, SDM 2014
26. PC, WSDM 2014
27. PC, NIPS 2013
28. PC, IJCAI 2013
29. PC, WWW 2013
30. PC, SDM 2013
31. PC, WSDM 2013
32. PC, CIKM 2012
33. PC, ACM MM 2012
34. PC, EMNLP 2012
35. PC, KDD 2012
36. PC, ICML 2012
37. PC, SIGIR 2012
38. PC, AAI 2012