Irwin Kuo-Chin King

Department of Computer Science & Engineering The Chinese University of Hong Kong

i) Name: Irwin King king@cse.cuhk.edu.hk; http://www.cse.cuhk.edu.hk/~king

- <u>ii)</u> Academic qualifications: Ph.D. (1993) and M.S. (1987), University of Southern California (USC), B.S. (1984), Caltech
 - 1. Google Scholar (https://bit.ly/2klWjcg): 40,000+ citations, 91 h-index, 390+ 10-index (since 2020, 22,000+ citations, 69 h-index, 275+ 10-index)
 - 2. DBLP (https://bit.ly/2kBuFbu): 98 journal manuscripts; 340+ conference papers; 25 edited volumes, 1 encyclopedia chapter, 2 books
 - 3. Publons (https://publons.com/researcher/2427324/irwin-king/)
 - 4. ORCID (https://orcid.org/0000-0001-8106-6447): 0000-0001-8106-6447

iv) Present academic position:

- 1. Pro-Vice-Chancellor (Education), CUHK, 2025-present
- 2. Professor, Department of Computer Science & Engineering, CUHK

iii) Academic and professional positions held (with dates):

- 1. Fellow of ACM, IEEE, INNS, HKIE, AAIA, and Lee Woo Sing College
- 2. Former President of the International Neural Network Society (INNS), 2019--2020
- 3. Former Governing Board of the Asia Pacific Neural Network Society (APNNS), 2006--2021
- 4. Associate Editor, Artificial Intelligence Journal (AIJ), 2025–present
- 5. Associate Editor, Neural Network (NN) Journal, 2011--present
- 6. Associate Editor, International Journal of Data Science and Analytics (JDSA), 2020-present
- 7. Associate Editor, Journal of Knowledge and Information Systems (KAIS), 2024–present
- 8. Associate Editor, Journal of Artificial Intelligence Science and Engineering (AISE), 2024–present
- 9. Former Associate Dean (Education), 2013--2019
- 10. Former Chairman 2020-2023 and Professor, since August 2010; Associate Professor (07/1998-08/2010); Assistant Professor (Sept. 1995-July 1998), Lecturer (07/1993-09/1995)
- 11. Director, Centre for ELearning Innovation and TEchnology (ELITE), CUHK, 2019–present
- 12. PI of Knowledge and Education Exchange Project (KEEP) and VeriGuide Project, CUHK, 2005–present
- 13. Director, Rich Media Big Data Analytics and Application Key Laboratory, Shenzhen Research Institute (SZRI), CUHK, since 2012
- 14. Visiting Professor, UC Berkeley, August 2011–July 2012; AT&T Labs Research, 2010–2012

v) Previous relevant research work:

Research interests include machine learning, social computing, web intelligence, data mining, and multimedia information processing for Big Data. He is the General Co-Chair of the WebConf 2020, ICONIP2020, WSDM 2011, RecSys 2013, and ACML 2015. He was on leave with AT&T Labs Research, San Francisco to work on big data-related projects and was also teaching Social Computing and Data Mining as a Visiting Professor at UC Berkeley.

vi) Recent and Related Publications

Section A (Recent 5 years)

- 1. Weibin Wu, Jianping Zhang, Victor Junqiu Wei, Xixian Chen, Zibin Zheng, **Irwin King**, Michael R. Lyu: Practical and Efficient Model Extraction of Sentiment Analysis APIs. ICSE 2023: 524-536
- 2. Cuiyun Gao, Jichuan Zeng, Zhiyuan Wen, David Lo, Xin Xia, **Irwin King**, Michael R. Lyu: Emerging App Issue Identification via Online Joint Sentiment-Topic Tracing. IEEE Trans. Software Eng. 48(8): 3025-3043 (2022)
- 3. 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
- 4. Aiwei Liu, Leyi Pan, Yijian Lu, Jingjing Li, Xuming Hu, Xi Zhang, Lijie Wen, **Irwin King**, Hui Xiong, Philip S. Yu: A Survey of Text Watermarking in the Era of Large Language Models. ACM Comput. Surv. 57(2): 47:1-47:36 (2025)
- 5. Zexuan Qiu, Jingjing Li, Shijue Huang, Xiaoqi Jiao, Wanjun Zhong, **Irwin King**: CLongEval: A Chinese Benchmark for Evaluating Long-Context Large Language Models. EMNLP (Findings) 2024: 3985-4004

Section B (Beyond 5 years)

- 1. Shouyuan Chen, Michael R. Lyu, **Irwin King**, Zenglin Xu: *Exact and Stable Recovery of Pairwise Interaction Tensors*. NIPS 2013: 1691-1699
- 2. Hongbo Deng, Jiawei Han, Michael R. Lyu, **Irwin King**: Modeling and exploiting heterogeneous bibliographic networks for expertise ranking. JCDL 2012: 71-80. **Won the Best Paper Award.**
- 3. Hao Ma, Dengyong Zhou, Chao Liu, Michael R. Lyu, Irwin King: Recommender systems with social regularization. WSDM 2011: 287-296. Won the 2022 WSDM Test of Time Award.
- 4. Hao Ma, **Irwin King**, and Michael R. Lyu. *Learning to recommend with social trust ensemble*. SIGIR 2009: 203–210. **Won the 2020 SIGIR Test of Time Award.**
- 5. Hao Ma, Haixuan Yang, Michael R. Lyu, Irwin King: SoRec: social recommendation using probabilistic matrix factorization. CIKM 2008: 931-940. Won the 2019 CIKM Test of Time Award.

Patents and Grants

- 1. Seven worldwide patents in information technology-related areas:
 - 1.1. **Irwin King**, Shenglin Zhao, Haiqin Yang, Michael Lyu, and Edward Yau, Ranking Method for Point-of-Interest, 2021.
 - 1.2. R. J. Agrawal, **I. King**, and R. Zajac, Methods, systems, and computer program products for integrated world wide web query classification, Google Patents, 2014.
 - 1.3. **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), Hong Kong Patent No. 09100342.6, 2010.
 - 1.4. **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.
 - 1.5. **Irwin King**, Jimmy Ho-Man Lee, Tak-Pang Lau, Chi Chung Mak, and Chi Chung Chan, Sistema e metodo para deteccao de similaridade dos documentos, Macau Patent no. J/000527, 2011.
 - 1.6. **Irwin King**, Jimmy Ho-Man Lee, Tak-Pang Lau, Chi Chung Mak, and Chi Chung Chan, Systems and Methods for Detecting Similarity of Documents, Singapore patent 200804446-3, May 31, 2011.
 - 1.7. **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.
- 2. Over HKD \$75 M in competitive and non-competitive research grants, project contracts, education, etc. Grants: Research (HKD \$10.78 M), Education (HKD \$60.23 M), Industry (HKD \$5.85 M)

Awards, Honors, and Recognitions

- 2022 ACM WSDM Test of Time Award (http://shorturl.at/bdDRZ): Hao Ma, Dengyong Zhou, Chao Liu, Michael R. Lyu, Irwin King: Recommender systems with social regularization. WSDM 2011: 287-296
- 2. 2021 INNS Dennis Gabor Award for outstanding contributions to engineering applications of neural networks
- 3. Global Al 2000 List (https://www.aminer.org/ai2000) in 2020–2022
- 4. 2020 Asia Pacific Neural Network Society (APNNS) Outstanding Achievement Award
- 5. 2020 ACM SIGIR Test of Time Award (https://sigir.org/awards/test-of-time-awards/): Hao Ma, Irwin King, Michael R. Lyu: Learning to recommend with social trust ensemble. SIGIR 2009: 203-210
- 6. ICONIP 2020 Best Paper Award. Yaoman Li, **Irwin King**: AutoGraph: Automated Graph Neural Network. ICONIP (2) 2020: 189-201
- 7. 2019 ACM CIKM Test of Time Award (http://www.cikmconference.org/cikmToTA.html): Hao Ma, Haixuan Yang, Michael R. Lyu, **Irwin King**: SoRec: social recommendation using probabilistic matrix factorization. CIKM 2008: 931-940
- 8. CVPR 2019 Best Paper Finalist, Pengpeng Liu, Michael R. Lyu, **Irwin King**, Jia Xu: SelFlow: Self-Supervised Learning of Optical Flow. CVPR 2019: 4571-4580
- ICONIP 2017 Best Paper Award Runner-up, Shenglin Zhao, Irwin King, Michael R. Lyu: Geo-Pairwise Ranking Matrix Factorization Model for Point-of-Interest Recommendation. ICONIP (5) 2017: 368-377
- 10. CIKM 2016 Best Paper Award Runner-up, Tong Zhao, **Irwin King**: Constructing Reliable Gradient Exploration for Online Learning to Rank. CIKM 2016: 1643-1652