

Yinghui (Catherine) Yang

Graduate School of Management
University of California, Davis
Room 3418, Gallagher Hall
540 Alumni Ln.
Davis, CA 95616

Phone: 530-754-5967
yiyang@ucdavis.edu

EDUCATION

Ph.D. Operations and Information Management, May 2004

The Wharton School, University of Pennsylvania

M.A. Operations and Information Management, Dec. 2001

The Wharton School, University of Pennsylvania

B.E. Management Information Systems, July 1998

School of Economics and Management, Tsinghua University (Beijing, China)

RESEARCH INTERESTS

Business Analytics, Big Data Analytics, Predictive modeling
Research Methods: Data Mining, Machine Learning, Optimization

EMPLOYMENT

Associate Professor, Graduate School of Management, UC Davis, 2012 – present

Assistant Professor, Graduate School of Management, UC Davis, 2004 – 2012

Instructor, The Wharton School, University of Pennsylvania, Spring 2002

Research Intern, IBM Almaden Research Center, Summer 2000

PUBLICATIONS

Working Papers

- Mining Bilateral Reviews: A Relational Topic Modeling Framework for Transaction Success Prediction in Sharing Economy, with Jiawei Chen & Hongyan Liu, Under Review at Information Systems Research
- Dynamic Budget Allocation in Competitive Search Advertising, with Yanwu Yang & Dengpan Liu, Under Review at INFORMS Journal on Computing
- Effective Selection of a Compact and High-Quality Review Set with Information Preservation, with Jiawei Chen, Hongyan Liu & Jun He, under review at ACM Transactions on MIS
- Collaborative Blood Pressure Prediction through Multi-Attention Deep Learning, with Luo He & Hongyan Liu

Refereed Journals

1. Yanwu Yang, Bernard J. Jansen, Yinghui Yang, Xunhua Guo, and Daniel Zeng, Keyword Optimization in Sponsored Search Advertising: A Multi-Level Computational Framework, *IEEE Intelligent Systems*, 34(1), 32-42, 2019
2. Yanwu Yang, Daniel Zeng, Yinghui Yang, and Jie Zhang, "Optimal Budget Allocation Across Search Advertising Markets", *INFORMS Journal on Computing*. 2015. 27(2): 285-300.
3. Hongyan Liu, Yinghui Yang, Zhuohua Chen, and Yong Zheng, "A Tree-Based Contrast Set Mining Approach to Detecting Group Differences", *INFORMS Journal on Computing*. Spring 2014, 26:208-221.
4. Yinghui Yang, Hongyan Liu and Yuanjue Cai, "Discovery of Online Shopping Patterns across Web Sites", *INFORMS Journal on Computing*. Winter 2013, 25:161-176.
5. Yinghui Yang, Balaji Padmanabhan, Hongyan Liu and Xiaoyu Wang, "Discovery of Periodic Patterns in Sequence Data: A Variance Based Approach", *INFORMS Journal on Computing*, Summer 2012, 24:372-386.
6. Rachel Chen, Eitan Gerstner and Yinghui Yang, "Customer Bill of Rights under No-fault Service Failure", *Marketing Science*. January/February 2012, vol. 31 no. 1 157-171.
7. Yinghui Yang and Chunhui Hao, "Product Selection for Promotion Planning", *Knowledge and Information Systems*, Vol. 24, No. 2, 2010.
8. Yinghui Yang, "Web User Behavioral Profiling for User Identification", *Decision Support Systems*, Vol. 49, No. 3, pp. 261-271, 2010.
9. Hongyan Liu, Xiaoyu Wang and Yinghui Yang, "Comments on 'An Integrated Efficient Solution for Computing Frequent and Top-k Elements in Data Streams'", *ACM Transactions on Database Systems (TODS)*, Vol. 35, No. 2, 2010.
10. Yinghui Yang and Balaji Padmanabhan, "Toward User Patterns for Online Security: Observation Time and Online User Identification", *Decision Support Systems*, Vol. 48, No. 4, pp. 548-558, 2010.
11. Rachel Chen, Eitan Gerstner and Yinghui Yang, "Should Captive Sardines be Compensated? Serving Customers in a Confined Zone", *Marketing Science*, Vol. 28, No. 3, pp. 599-608, 2009.
12. Yinghui Yang and Balaji Padmanabhan, "GHIC: A Hierarchical Pattern Based Clustering Algorithm for Grouping Web Transactions", *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, Vol. 7, No. 9, pp. 1300-1304, 2005.
13. Yinghui Yang and Balaji Padmanabhan, "The evaluation of online personalization systems: A survey of evaluation schemes and a knowledge-based approach", *Journal of Electronic Commerce Research*, Vol. 6, No. 2, pp. 112-120, May 2005.

Other Publications

14. Yinghui Yang, Zijie Qi, Hongyan Liu, Jun He. Constrained Clustering Based on the Link Structure of a Directed Graph. In *Proceedings of the Pacific Asia Conference on Information Systems*, July, 2015, Singapore, Association for Information Systems Electronic Library.
15. Yinghui Yang, Zijie Qi, Hongyan Liu. Selective Domain Information Acquisition to Improve Segmentation Quality. In *Proceedings of the 17th International Conference on Electronic Commerce*, Seoul, Republic of Korea, August, 2015. ACM New York, NY, USA.
16. Nan Li, Yinghui Yang and Xifeng Yan, "Cross-Selling Optimization for Customized Promotion", In *Proceedings of 2010 SIAM International Conference on Data Mining (SDM)*, pp. 918-929, 2010. (Acceptance rate: 82/344=23.8%)

17. Yinghui Yang, Hongyan Liu and Yuanjue Cai, "Online Market Basket Analysis across Web Sites", *In Proceedings of the 18th Workshop on Information Technologies and Systems (WITS2008)*, 2008.
18. Yinghui Yang, "Web Design Based On User Browsing Patterns", *In Encyclopedia of Data Warehousing and Mining - 2nd Edition*, John Wang (eds.), Information Science Reference, 2008.
19. Yinghui Yang, "Behavioral Pattern-Based Customer Segmentation", *In Encyclopedia of Data Warehousing and Mining - 2nd Edition*, John Wang (eds.), Information Science Reference, 2008.
20. Yinghui Yang and Balaji Padmanabhan, "Leveraging Unlabeled Data for Classification", *In Encyclopedia of Data Warehousing and Mining - 2nd Edition*, John Wang (eds.), Information Science Reference, 2008.
21. Yinghui Yang, "The Online Customer: New Data Mining and Marketing Approaches", Cambria Press, 2006. (Research book)
22. Steve Kimbrough and Yinghui Yang, "On Representing Special Languages with FLBC: Message Markers and Reference Fixing in SeaSpeak", *In Formal Modeling in Electronic Commerce*. Kimbrough and Wu, eds., Springer, Berlin, 2005.
23. Yinghui Yang and Balaji Padmanabhan, "Divide and Conquer: An Approach to Model Building Using Pattern-Based Clustering", *In Proceedings of the 13th Workshop on Information Technology and Systems (WITS2003)*, Seattle, Washington, December 13-14, 2003. (Acceptance rate: 37/126 = 29%)
24. Yinghui Yang and Balaji Padmanabhan, "Segmenting Customer Transactions Using a Pattern-Based Clustering Approach", *In Proceedings of The Third IEEE International Conference on Data Mining (ICDM2003)*, Melbourne, Florida, November 19-22, 2003. (Acceptance rate: 58/501 = 11.6%)
25. Steven O. Kimbrough, Thomas Y. Lee, Balaji Padmanabhan, and Yinghui Yang, "On Original Generation of Structure in Legal Documents", *In Proceedings of the 9th International Conference on Artificial Intelligence and Law (ICAIL2003)*, Pages 152-161, Scotland, UK June 24-28, 2003. ACM press.
26. Steven O. Kimbrough, Thomas Y. Lee, Balaji Padmanabhan, and Yinghui Yang, "Generating Original Structure in Regulatory Documents", *In Proceedings of the 2003 National Conference on Digital Government Research (dg.o2003) (sponsored by the National Science Foundation)*, Boston, Massachusetts, May 18-21, 2003.
27. Yinghui Yang and Balaji Padmanabhan, "On Evaluating Online Personalization", *In Proceedings of the 11th Workshop on Information Technologies and Systems (WITS2001)*, Pages 35-41, New Orleans, Louisiana, December 15-16, 2001. (Acceptance rate: 33/116=28%)
28. Ramakrishnan Srikant and Yinghui Yang, "Mining Web Logs to Improve Website Organization", *In Proceedings of the 10th International World Wide Web Conference (WWW10)*, Pages 430-437, Hong Kong, May 1-5, 2001. (Acceptance rate: 78/392=19.9%)

Patent

- Ramakrishnan Srikant and Yinghui Yang, "Method and System for using Access Patterns to Improve Web Site Hierarchy and Organization", U.S. Patent No. 6,981,037. Issued December 27, 2005.

TEACHING

- 269 Business Intelligence Technologies – Data Mining
- 287 Business Database and Database Marketing

SERVICE

Professional Service:

- Associate Editor, INFORMS Journal on Computing, Oct. 2015-present
- Vice Chair, INFORMS College on Artificial Intelligence, 2015-2016
- Panelist, China Summer Workshop on Information Management (Panel on Data Science for Business Analytics), June, 2015
- Faculty expert, First Doctoral Consortium of China Association for Information Systems, June, 2014
- Editorial Review Board member, Journal of Database Management, Sept. 2009 - present
- Associate Editor, Journal of Electronic Commerce Research, April 2006 – 2013
- Associate Editor, International Conference on Information Systems (2012)
- Session chair, Pacific Asia Conference on Information Systems, 2015
- Session chair, China Summer Workshop on Information Management, 2014, 2015
- Session chair, Workshop on Information and Technology Systems, 2013
- Issue editor, Journal of Electronic Commerce Research, Feb. 2006 issue
- Program Committee, Workshop on Information Technologies and Systems (WITS), 2009, 2010, 2011
- Program Committee, INFORMS Conference on Information Systems and Technology (CIST), 2004, 2005, 2006, 2010, 2014, 2015, 2016, 2017, 2018
- Program Committee, China Summer Workshop on Information Management, 2007, 2008, 2009, 2014, 2015, 2016, 2017, 2018
- Program Committee, INFORMS Workshop on Data Science, 2018