

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
Artificial Intelligence and Machine Learning

EMPLOYMENT

- Professor, Graduate School of Management, UC Davis, 2021 – present**
- Associate Professor, Graduate School of Management, UC Davis, 2012 – 2021**
- 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

Refereed Journals

1. Luo He, Hongyan Liu, Yinghui Yang, Bei Wang, A Multi-Attention Collaborative Deep Learning Approach for Blood Pressure Prediction, *ACM Transactions on Management Information Systems*, Accepted, 2021
2. Jiawei Chen, Yinghui Yang, Hongyan Liu, Mining Bilateral Reviews for Online Transaction Prediction:

A Relational Topic Modeling Approach, *Information Systems Research*, 32(2), 541–560, 2021.

3. Jiawei Chen, Hongyan Liu, Yinghui Yang, Jun He, Effective Selection of a Compact and High-Quality Review Set with Information Preservation, *ACM Transactions on Management Information Systems (TMIS)* 10 (4), 1-22, 2019
4. 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
5. Yanwu, Yang, Yinghui Yang, Bernard J. Jansen, Mounia Lalmas, Computational Advertising: A Paradigm Shift for Advertising and Marketing, *IEEE Intelligent Systems*. 2017. 32(3), 3-6.
6. 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.
7. 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.
8. Yinghui Yang, Hongyan Liu and Yuanjue Cai, “Discovery of Online Shopping Patterns across Web Sites”, *INFORMS Journal on Computing*. Winter 2013, 25:161-176.
9. 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.
10. 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.
11. Yinghui Yang and Chunhui Hao, “Product Selection for Promotion Planning”, *Knowledge and Information Systems*, Vol. 24, No. 2, 2010.
12. Yinghui Yang, “Web User Behavioral Profiling for User Identification”, *Decision Support Systems*, Vol. 49, No. 3, pp. 261-271, 2010.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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

18. 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.

19. 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.
20. 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%)
21. 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.
22. 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.
23. Yinghui Yang, "Behavioral Pattern-Based Customer Segmentation", *In Encyclopedia of Data Warehousing and Mining - 2nd Edition*, John Wang (eds.), Information Science Reference, 2008.
24. 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.
25. Yinghui Yang, "The Online Customer: New Data Mining and Marketing Approaches", Cambria Press, 2006. (Research book)
26. 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.
27. 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%)
28. 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%)
29. 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.
30. 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.
31. 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%)
32. 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 Introduction to Machine Learning with Python
- 287 Business Database and Database Marketing

SERVICE

Professional Service:

- Associate Editor, INFORMS Journal on Computing, Oct. 2015-present
- Guest Editor, IEEE Intelligent Systems, Special Issue on Computational Advertising, 2015-2017
- 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

Recent University Service:

- 2016-2019, 2021 Member of Committee on Undergraduate Scholarships, Honors and Prizes. Reviewed around 200 scholarship applications.
- 2016-2020, Member of the MSBA Admission Committee, reviewed around 500 applications each year
- 2016-2017, Member of the Global Centers – Asia and the Pacific Committee. Attended regular meetings, conducted research online, and involved in drafting final committee report for where to set the location of the global center.
- 2016-2017, UC Committee on Courses of Instruction, attended meetings, reviewed materials and commented online.
- 2015-2016, Served on the advisory board of the online data science program started by UC Davis Extension by being involved in program development and course approval.
- 2016-2017, Member of the MSBA GPC, curriculum design
- 2016-2017, Chair, Committee on Courses, course approval
- 2016-2017, 2015-2016, Ag/Food Executive program, worked with Tsinghua University to set up the ag/food executive program.
- 2015-2016, Committee on Courses

- 2015-2016, Faculty Resources & IT Committee
- 2014-2015, Education Policy Committee
- 2013-2014, Chair, Faculty Resources/IT Committee
- 2013-2014, Education Policy Committee