

WEN SHEN

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Research Interests

Mechanism Design, Multi-Agent Systems, Network Analysis, Reinforcement Learning

Education

University of California, Irvine

Irvine, CA, USA

Ph.D in Information and Computer Science

June 2019 (expected)

- Dissertation (tentative title): Mechanism Design for Online Platforms: Theory and Applications.
- Advisor: Cristina V. Lopes

Masdar Institute of Science and Technology

Abu Dhabi, UAE

M.S. in Computing and Information Science

June 2013

- Thesis: *Regulating Self-Adaptive Multi-Agent Systems with Real-Time Interventions.*
- Advisor: Jacob W. Crandall

Northwestern Polytechnical University

Xi'an, China

B.E. in Software Engineering (with distinction)

July 2009

- Thesis: *A Spam Filtering System using Naïve Bayes.*
 - Advisors: Yi Lin, and Wei Zheng
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Professional Experience

University of California, Irvine

Irvine, CA, USA

Research Assistant

2014 - Present

- Project A: *Mechanism Design for Online Platforms* (Papers: 1, 3, 5).
- Project B: *An Aspect-Oriented Approach to Large-Scale Urban Simulations* (Papers: 2, 5, 6).

Masdar Institute of Science and Technology

Abu Dhabi, UAE

Research Engineer

2013 - 2014

- Project: *Monitoring and Predictive Maintenance of Buildings and Building Systems* (Papers: 8-12).

Masdar Institute of Science and Technology

Abu Dhabi, UAE

Research Assistant

2011 - 2013

- Project A: *Trade-offs in Regulating Highly Automated Machine Ecologies* (Papers: 4, 16).
- Project B: *Energy Time Series Forecasting* (Paper: 7).

Shenzhen Comtop Information Technology Co. Ltd.

Shenzhen, China

Software Engineer

2009-2010

Refereed Conference Papers

(In CS, conferences are the primary venues for scientific publications. Google Scholar: <https://goo.gl/qaXQQR>)

1. W. Shen, Y. Feng, C. V. Lopes: *Multi-Winner Contests for Strategic Diffusion in Social Networks*. In Proceedings of the 33rd AAAI Conference on Artificial Intelligence (**AAAI 2019**).
 2. W. Shen, R. Achar, C. V. Lopes: *Toward Understanding the Impact of User Participation in Autonomous Ridesharing Systems*. In Proceedings of the 2018 Winter Simulation Conference (**WSC 2018**).
 3. W. Shen, J.W. Crandall, K. Yan, C.V. Lopes: *Information Design in Crowdfunding under Thresholding Policies*. In Proceedings of the 17th International Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS 2018**).
 4. W. Shen, A. A. Khemiri, A. Almhrezi, W.A. Enezi, I. Rahwan, J.W. Crandall: *Regulating Highly Automated Robot Ecologies: Insights from Three User Studies*. In Proceedings of International Conference on Human-Agent Interaction (**HAI 2017**). **Winner of Best Student Paper Award**. Selected Media: *Heise online*.
 5. W. Shen, C.V. Lopes, J.W. Crandall: *An Online Mechanism for Ridesharing in Autonomous Mobility-on-Demand Systems*. In Proceedings of the 25th International Joint Conference on Artificial Intelligence (**IJCAI 2016**).
 6. W. Shen, C. V. Lopes: *Managing Autonomous Mobility on Demand Systems for Better Passenger Experience*. In Proceedings of the 18th Conference on Principles and Practice of Multi-Agent Systems (**PRIMA 2015**).
 7. W. Shen, V. Babushkin, Z. Aung, W.L. Woon: *An Ensemble Model for Day-ahead Electricity Demand Time Series Forecasting*. In Proceedings of ACM International Conference on Future Energy Systems (**ACM e-Energy 2013**).
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Refereed Journal Articles

8. K. Yan, W. Shen, H. Lu and Q. Jin: *Emerging Privacy Issues and Solutions in Cyber-Enabled Sharing Services: From Multiple Perspectives*. **IEEE Access**, 2019.
9. K. Yan, L. Ma, Y Dai, W. Shen, Z. Ji: *Cost-sensitive and Sequential Feature Selection for Chiller Fault Detection and Diagnosis*. **International Journal of Refrigeration**, Vol. 86 (2018), pp. 401-409.
10. K. Yan, Z. Ji, H. Lu, J. Huang, W. Shen, Y. Xue: *Fast and Accurate Classification of Time Series Data using Extended ELM: Application in Fault Diagnosis of Air Handling Units*. **IEEE Transactions on Systems, Man and Cybernetics: Systems**, Vol. PP (2017), Issue 99, pp. 1-8.
11. K. Yan, Z. Ji, W. Shen: *Online Fault Detection Methods for Chillers Combining Extended Kalman Filter and Recursive One-class SVM*. **Neurocomputing**, Vol.228 (2017), pp. 205-212.
12. T. Mulumba, A. Afshari, K. Yan, W. Shen, L. K. Norford: *Robust Model-based Fault Diagnosis for Air Handling Units*. **Energy and Buildings**, Vol.86(2015), pp. 698-707.
13. K. Yan, W. Shen, T. Mulumba, A. Afshari: *ARX Model Based Fault Detection and Diagnosis for Chillers using Support Vector Machines*. **Energy and Buildings**, vol.81(2014), pp. 287-295.
14. W. Zheng, W. Shen, Y. Zhang: *Implementing Spam Filter by Improving Naïve Bayesian Algorithm*. **Journal of Northwestern Polytechnical University**, vol.28, no.4, pp. 622-627, 2010.

Technical Reports

15. B. Quadros, R. Kadam, D. Lavaniya, M. Mukhtar, K., Saxena, W. Shen, A. Kobsa: *Dashbell: A Low-cost Smart Doorbell System for Home Use*. IEEE International Conference on Pervasive Computing and Communications Work in Progress (**PerCom WiP 2016**, accepted).
16. W. Shen: *Regulating Self-Adaptive Multi-Agent Systems with Real-Time Interventions*. Master Thesis, Masdar Institute of Science and Technology, June 2013.

Honors and Awards

Student Travel Grant, Bren School of ICS, University of California, Irvine	2019
Student Travel Award, International Conference on Autonomous Agents and Multiagent Systems	2018
Best Student Paper Award, International Conference on Human-Agent Interaction	2017
Chair's Award, Department of Informatics, University of California, Irvine	2014
Student Travel Grant (US\$2,500), Masdar Institute of Science and Technology	2013
Outstanding Bachelor Thesis Award, Northwestern Polytechnical University	2009
National Endeavor Scholarship, Ministry of Education of China	2008
Academic Excellence Scholarship, Northwestern Polytechnical University	2006-2008

Teaching

Mentor, Pratik Shetty (M.S. at UCI, Now a software engineer at Microsoft), 2018
Reader, ICS45J - Programming In Java, Spring 2018, Fall 2018, Winter 2018
Assistant, INF295 - Distributed Interactive Simulation, Spring 2016
Reader, INF124 - Internet Applications Engineering, Spring 2015
Reader, INF225/CS221 - Information Retrieval, Winter 2015
Reader, INF43 - Introduction to Software Engineering, Fall 2014

Academic Service

Conference Reviewer: The Annual ACM/IEEE International Conference on Human Robot Interaction 2016-2019; International Conference on Human-Agent Interaction 2017; The CHI Conference on Human Factors in Computing Systems 2017.

Journal Reviewer: Journal of Urban Technology 2018; IEEE Access 2018; Applied Thermal Engineering 2018; Transportation Science 2017; IEEE Transactions on Systems, Man, and Cybernetics: Systems 2017; International Journal of Electrical Power & Energy Systems 2013.

References

Cristina V. Lopes

Professor
Department of Informatics
University of California, Irvine
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Jacob W. Crandall

Associate Professor
Computer Science Department
Brigham Young University
crandall@cs.byu.edu

Ke Yan

Associate Professor
College of Information Eng.
China Jiliang University
yanke@cjlu.edu.cn