WEN SHEN

ICS1 408B • Inner Ring Road • Irvine, CA 92697

(949) 690-8955 | wen.shen@uci.edu | wshen.net

Research Interests

Artificial Intelligence, Multi-Agent Systems, Game Theory, Online Learning, Human-Agent Interaction

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.
- Committee: Cristina V. Lopes (chair), Alfred Kobsa, and Amelia Regan

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.*
- Committee: Jacob W. Crandall (chair), Iyad Rahwan, and Zeyar Aung

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

Professional Experience

University of California, Irvine   Irvine, CA, USA
Research Assistant   *Sept. 2014 - Present*
- Project 1: *Mechanism Design for Online Platforms* (Papers: 1, 3, 5).
- Project 2: *An Aspect-Oriented Approach to Large-Scale Urban Simulations* (Papers: 2, 5, 6).

Masdar Institute of Science and Technology   Abu Dhabi, UAE
Research Engineer   *Aug. 2013 - Aug. 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   *Sept. 2011 - May 2013*
- Project 1: *Trade-offs in Regulating Highly Automated Machine Ecologies* (Papers: 4, 16).
- Project 2: *Energy Time Series Forecasting* (Paper: 7).

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 (**WinterSim 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. Almehrezi, 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**).

Refereed Journal Articles

8. K. Yan, L. Ma, Y Dai, <u>W. Shen</u>, Z. Ji: *Cost-sensitive and Sequential Feature Selection for Chiller Fault Detection and Diagnosis.* **International Journal of Refrigeration**, Vol. 86 (2018), pp. 401-409.
9. K. Yan, Z. Ji, H. Lu, J. Huang, <u>W. Shen</u>, 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.
10. K. Yan, Z. Ji, <u>W. Shen</u>: *Online Fault Detection Methods for Chillers Combining Extended Kalman Filter and Recursive One-class SVM.* **Neurocomputing**, Vol.228 (2017), pp. 205-212.
11. T. Mulumba, A. Afshari, K. Yan, <u>W. Shen</u>, L. K. Norford: *Robust Model-based Fault Diagnosis for Air Handling Units.* **Energy and Buildings**, Vol.86(2015), pp. 698-707.
12. K. Yan, <u>W. Shen</u>, 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.
13. W. Zheng, <u>W. Shen</u>, 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

14. K. Yan, <u>W. Shen</u>, H. Lu and Q. Jin: *Emerging Privacy Issues and Solutions in Cyber-Enabled Sharing Services.* arXiv preprint arXiv:1711.07172. (Revise & Resubmit at **IEEE Access**).
15. B. Quadros, R. Kadam, D. Lavaniya, M. Mukhtar, K., Saxena, <u>W. Shen</u>, 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. <u>W. Shen</u>: *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 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 (Previously a master student 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

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

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.

References

Available upon request