

He Zhang

Assistant Professor, Department of Information Systems & Decision Sciences, Muma College of Business, University of South Florida

Tampa, FL 33620-7800

Phone: +1 (813) 974-6930

Email: hezhang@usf.edu

Research Interests

Healthcare Information Management, Data Mining, Production and Inventory Systems, Applied Optimization, Robust Optimization

Education

PH.D in Industrial Engineering and Management Sciences, Northwestern University, Evanston, IL 33620, USA. 2014

M.S in Management Science and Engineering, Stanford University, Stanford, CA 94305, USA. 2008

M.S with Distinction in Control Science & Engineering, Tsinghua University, Beijing, P.R.China. 2005

B.ENG in Automation, Tsinghua University, Beijing, P.R.China. 2002

Professional Positions

August 2014 - Present: Assistant Professor, Department of Information Systems and Decision Sciences, Muma College of Business, University of South Florida.

August 2013 - July 2014: Instructor, Department of Information Systems and Decision Sciences, Muma College of Business, University of South Florida.

Publications and Working Papers

Onkar Malgonde, **He Zhang**, Balaji Padmanabhan, and Moez Limayem. Two-sided recommendations on digital platforms. *MIS Quarterly*, 2017. R&R.

Manish Agrawal, Kaushal Chari, and **He Zhang**. Optimal allocation of security controls. *ACM Transaction on MIS*, 2016. Submitted.

Sanjay Mehrotra and **He Zhang**. Models and algorithms for distributionally robust least squares problems. *Mathematical Programming*, 146(1-2):123–141, 2014.

He Zhang, Sanjay Mehrotra, David Liebovitz, Carl A. Gunter, and Bradley Malin. Mining deviations from patient care pathways via electronic medical record system audits. *ACM Transactions on Management Information Systems*, 4(4):Article 17, 2013.

Sanjay Mehrotra and **He Zhang**. A two-stage moment robust optimization model and its solution using decomposition. *European Journal of Operational Research*, 2015. R&R.

He Zhang. A moment robust constrained multi-product newsvendor problem. *Submitted*, 2017.

He Zhang and W.K.V. Chan. Mathematical programming-based perturbation analysis for GI/G/1 queues. In *Proceedings of 2007 Winter Simulation Conference*, pages 553–559, 2007.

He Zhang, Xiu Li, and Wenhua Liu. An AHP/DEA methodology for 3PL vendor selection in 4PL. In *Computer Supported Cooperative Work in Design (II)*, volume 3865 of *LNCS*, pages 646–655. Springer, 2006.

He Zhang, Xiu Li, and Wenhua Liu. A method of network simplification in a 4PL system. In *Computer Supported Cooperative Work in Design (I)*, volume 3168 of *LNCS*, pages 279–288. Springer, 2005.

He Zhang, Xiu Li, Wenhua Liu, Bing Li, and Zhihong Zhang. An application of the AHP in 3PL vendor selection of a 4PL system. In *Proceedings of 2004 IEEE International Conference on Systems, Man and Cybernetics*, pages 1255–1260, 2004.

Working in Progress

He Zhang, Robert Hauser, Gaurav Jetley, JP Philius, and Cyril Spiro. Adverse drug interaction (adi) detection with electronic medical records. 2017.

He Zhang. Mining process patterns with electronic medical record audits. 2017.

Mingyang Li and **He Zhang**. A distribution free methods for survival analysis. 2017.

Presentation

INFORMS Annual Meeting in Nashville, TN, November 2016, Mining Process Patterns with Electronic Medical Record Audits.

INFORMS Annual Meeting in San Francisco, CA, November 2014, Mining Process Patterns from Noisy Audit Logs with Application to Electronic Medical Record Systems.

INFORMS Annual Meeting in Phoenix, AZ, October 2012, Empirical Study of Business Process Management and Applications in Healthcare Systems.

INFORMS Annual Meeting in Phoenix, AZ, October 2012, Models and Algorithms for Distributionally Robust Least Squares Problem.

INFORMS Annual Meeting in Charlotte, NC, November 2011, A Distributionally Robust Two-Stage Stochastic Programming Model and Its Tractability.

INFORMS Annual Meeting in Austin, TX, November 2010, Moment Robust Stochastic Optimization Models and Their Tractability.

12th International Conference on Stochastic Programming in Halifax, Nova Scotia, CAN, August 2010, A Moment Robust Stochastic Optimization Model.

Grants and Sponsored Research

Healthaxis, PI on \$63,818, Detecting Medication Side Effects using Anomaly Patterns in Electronic Medical Records Data: Correlation of Parkinson's disease with the use of Lipophilic Beta-Blockers, May 2016 - July 2017

Our Florida Promise, Co-PI on \$75,000 "Reimbursement methodology for long term care in Florida", September 2015 - July 2016

Teaching

QMB 3701 Computational Methods in Business, University of South Florida,
ISM 6930 Healthcare Management Science, University of South Florida,
ISM 3431: Operations & Supply Chain Processes, University of South Florida.
ISM 6930: Healthcare Information Systems, University of South Florida.
ISM 6930: Computational Methods in ISDS , University of South Florida.

Professional Experience

Summer Internship, Feinberg School of Medicine, Northwestern University, 2012.
Summer Internship, Feinberg School of Medicine, Northwestern University, 2011.
Summer Internship, Feinberg School of Medicine, Northwestern University, 2010.

Computer Skills

- Programming Language(s): C, C++.
- Optimization Packages: AMPL, CPLEX, SeDuMi.
- Statistics and Math Computing: Matlab, Mathematica, R, Minitab.

Honors and Awards

Walter P. Murphy Fellowship, Northwestern University, 2008.
Outstanding Master Graduate, Tsinghua University, 2005 (46/3350).
Outstanding Thesis for Master's Degree, Tsinghua University (4%), 2005.
Outstanding Student Tutor, Tsinghua University (5%), 2004.
The third class scholarship for Social Activities, Tsinghua University (10%), 2001.
The third class scholarship for Outstanding Academic Performance, Tsinghua University (20%), 2000.
INTEL Information Science Scholarship, INTEL Co., Tsinghua University (5%), 2000.
The second class scholarship for Outstanding Academic Performance, Tsinghua University (10%), 1999.
Freshman first class scholarship, Tsinghua University (30/2600), 1998.

Services

INFORMS and SIAM Member.