

The 2018 INFORMS Workshop on Data Science Program

Saturday, November 3, 2018

Phoenix Convention Center
Room 125AB, 126A, 126C

7:00–8:00am **Breakfast (Room 125AB)**

8:00–8:05am **Opening Remarks (Room 125AB)**

8:05–8:50am **Keynote Speech (Room 125AB)**

(Dr. Hsinchun Chen, UA Regents' Professor of MIS, Eller College of Management, University of Arizona)

9:00–10:30am (Room: 126A) Session 1A: Data Acquisition and Transformation Session Chair: Edward McFowland III	9:00–10:30am (Room: 126C) Session 1B: Healthcare Analytics Session Chair: Bin Zhang
<i>Adjusting to the GDPR: Impact on Data Scientists and Behavioral Researchers</i> Travis Greene, Galit Shmueli, Soumya Ray	<i>Predicting Hospital Readmission Risk Using Trajectory-Based Deep Learning Approach</i> Jiaheng Xie, Bin Zhang, Daniel Zeng
<i>Constructing Profiles for New Customer Acquisition</i> Xiaoping Liu, Hasan Kartal, Xiaobai Li	<i>Prescriber-Sharing Effect on Prescription Opioid Abuse: A Large-Scale Social Network Analysis</i> Yongcheng Zhan, Bin Zhang, Jenny Lo-Ciganic
<i>Seeing the Forest for the Trees: Generating Instrumental Variables with Random Forest for Bias Correction in Statistical Inferences (Best Paper Nominee)</i> Mochen Yang, Edward McFowland III, Gordon Burtch, Gediminas Adomavicius	<i>The Value of Personalized Medicine: Treatment effect Heterogeneity One Year beyond Left Ventricular Assist Device Implantation</i> Jeff McCullough, Sriram Somanchi
<i>Optimal Keyword Grouping in Search Advertising under Uncertain Environments</i> Huiran Li, Yanwu Yang, Han Nie	<i>Predictive Analytics for Acute Illness Care: A Deep Learning Approach for Complication Phenotype Prediction</i> Qihua Sheng, Xiao Liu, Paul Hu, Tingshuo Huang
10:30–10:45am Coffee Break (Room 125AB)	
10:45am–12:15pm (Room: 126A) Session 2A: Deep Learning Session Chair: Jingjing Li	10:45am–12:15pm (Room: 126C) Session 2B: Empirical Big Data Analysis Session Chair: Tae Hun Kim
<i>Finding Needles in a Haystack: Deep Learning for Rare Adverse Event Detection</i> Faizan Ahmad, Ahmed Abbasi, Brent Kitchens, Daniel Zeng	<i>Modeling Brand Personality with Social Media</i> Yuheng Hu, Yili Hong, David Gal
<i>Discovering Medication Nonadherence Reasons with Sentiment-Enriched Deep Learning Approach</i> Jiaheng Xie, Xiao Liu, Daniel Zeng, Xiao Fang	<i>Dynamics of Online Word of Mouth (WOM) Spillover Effects</i> Yen-Yao Wang, Chenhui Guo, Anjana Susarla, Vallabh Sambamurthy
<i>A Deep Learning Architecture for Psychometric Natural Language Processing (Best Paper Nominee)</i> Jingjing Li, Ahmed Abbasi, Faizan Ahmad, Hsinchun Chen	<i>Does User Engagement Enhance Social Welfare? The Effectiveness of User-Crowdsourced Content in Improving Urban Transportation</i> Tae Hun Kim, Chenhui Guo, Anjana Susarla, Vallabh Sambamurthy
<i>Protecting Children from Inappropriate Mobile Apps: A Text and Image Deep Learning Approach</i> Yilu Zhou, Hao Sun, Yang Gao	<i>Default Risk and Stock Returns: A New Evidence</i> Xiaorui Zhu, Yan Yu, Shaonan Tian

12:20–1:50pm **Lunch / Poster Slam Session (Room 125AB)**

1.	<i>Inferring Balance Sheet Holdings with Probability Constrained Factorization</i> Shawn Mankad
2.	<i>Identifying Mortality Related Cliques in a Comorbidity Network</i> Pankush Kalgotra, Ramesh Sharda
3.	<i>Exploiting Partial Tag Information for Accurate and Explainable Recommendation</i> Shen Liu, Hongyan Liu
4.	<i>Sequence Clustering with Temporal Graph and Sequence Recovery</i> Jin Fang, Chuanren Liu, Hande Benson
5.	<i>Should We Play A Game? An Empirical Investigation of Location-Based Mobile Gaming and Mental Health</i> Aaron Zhi Cheng, Brad N. Greenwood, Paul A. Pavlou
6.	<i>Predicting Diffusion of Digital Media Using Their Personality Traits</i> Haris Krijestorac, Rajiv Garg, Maytal Saar-Tsechansky
7.	<i>Change, We Can Believe in: Examining Spillover Effect of Content Switch on Live Streaming Platform</i> Keran Zhao, Yuheng Hu, Yingda Lu, Yili Hong
8.	<i>Everyone Can Be a Star: Quantifying Grassroots Online Sellers' Live Streaming Effects on Product Sales</i> Cheng Chen, Yuheng Hu, Yingda Lu, Yili Hong
9.	<i>Keyword Generation and Expansion for Sponsored Search Advertising: Balancing Coverage and Relevance</i> Han Nie, Yanwu Yang, Huiran Li
10.	<i>Do Better Predictions Lead to Better Decisions? Insights from Predictive Policing</i> Oliver Dlugosch, Tobias Brandt, Luca van de Meerendonk, Dirk Neumann
11.	<i>An Integrated Model of Pre-Release Adoption Commitments and Product-Line Level Aggregate Sales</i> Aslan Lotfi, Zhengrui Jiang, Xinxue Qu
12.	<i>smartCVC: A Novel Startup Selection Method for Corporate Venture Capital</i> Ruiyun Xu, Hailiang Chen, J Leon Zhao
13.	<i>Identification of High-Risk Patients for Disease Prevention: Evidence from Diabetes Mellitus</i> Mathias Kraus, Stefan Feuerriegel, Maytal Saar-Tsechansky
14.	<i>Using Text Analytics to Classify Safety Hazard Reports in Online Reviews</i> Nohel Zaman, David Goldberg, Richard Gruss, Johnathon Ehsani, Alan Abrahams

2:00–3:00pm	Editors Panel: Building a Business Data Science Community: Publishing and Reviewing Practices in the Top Business Journals (Room 125AB)
Moderator:	Maytal Saar-Tsechansky, University of Texas at Austin
Panelist:	Kartik Hosanagar, The University of Pennsylvania Balaji Padmanabhan, The University of South Florida J. George Shanthikumar, Purdue University Olivia Sheng, University of Utah Galit Shmueli, National Tsing Hua University
3:00–3:15pm	Coffee Break (Room 125AB)

3:15–4:45pm (Room: 126A)	3:15–4:45pm (Room: 126C)
Session 3A: Social Media and Networks	Session 3B: Consumers, Markets, and Economy
Session Chair: Yuheng Hu	Session Chair: Marios Kokkodis
<i>Information Spreading in Social Media: A Generative Bayesian Model for Discriminating the Diffusion of True and False Information</i> Stefan Feuerriegel, Christof Naumzik	<i>Expertise Assessment and Reputation Deflation in Online Labor Markets</i> Marios Kokkodis
<i>Leveraging Community-Level Social Influence and Vocal Competence for Singing-Song Recommendation (Best Paper Nominee)</i> Zhuohua Chen, Hongyan Liu	<i>Employee Ride-sharing: User Choices and Reinforcement Learning (Best Paper Nominee)</i> Wangcheng Yan, Wenjun Zhou
<i>Predicting Complainers on Social Media: A Machine Learning Approach</i> Yuheng Hu, Ali Tafti, David Gal	<i>Utility-Based Product Bundling: A Price Sensitivity Perspective</i> Nooshin Hamidian, Wenjun Zhou, Rapinder Sawhney
<i>Predicting Stock Price Movements via Multi-relational Inter-firm Networks</i> John Rios, Kang Zhao, Nick Street	<i>Understanding Business Location Choice Pattern: A Co-Location Analysis on Urban POI Data</i> Jeffrey Chiu, Amin Vahedian Khezerlou, Xun Zhou

7:30pm **Reception/Social Event Jointly with CIST 2018 (Regency Ballroom CD of the Hyatt Hotel)**