JIAHENG XIE

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EDUCATION

2015 - 2020 (expected)	**Eller College of Management, The University of Arizona** *Ph.D. in Management Information Systems* *Minor: Computational Linguistics*
2011 - 2015	**Renmin Business School, Renmin University** *B.A. in Management Science and Engineering* *Graduated with Honors*
2017 - 2018	**Office of Instruction and Assessment, The University of Arizona** *Certificate in College Teaching*

RESEARCH INTERESTS

Methods	Deep Learning, Data Mining, Text Mining, Time Series Analysis, Predictive Analytics
Topics	Business Analytics, Health Risk Analytics, Cybersecurity

DISSERTATION

Title	Big Data-Based Health Risk Analytics: A Deep Learning Approach – **Departmental Nominee for 2019 ICIS Doctoral Consortium**
Committee	Daniel Zeng (Chair), Hsinchun Chen (Member), Sue Brown (Member)

PUBLISHED JOURNAL ARTICLES

Xie, J., Liu, X., and Zeng, D. (2017). Mining E-cigarette Adverse Events in Social Media Using Bi-LSTM Recurrent Neural Network with Word Embedding Representation. ***Journal of the American Medical Informatics Association (JAMIA)*** (IF: 4.27). 25 (1), 72-80.

Xie, J., Zeng, D., and Marcum, Z. A. (2017). Using Deep Learning to Improve Medication Safety: the Untapped Potential of Social Media. ***Therapeutic Advances in Drug Safety*** (IF: 2.84). 8 (12), 375-377.

PAPERS UNDER REVIEW

Xie, J., Liu, X., Zeng, D., and Fang, X. Understanding Medication Nonadherence from Social Media: A Sentiment-Enriched Deep Learning Approach. (SSRN↗)

- Revising for the **3rd round of review at *MIS Quarterly***

Xie, J., Zhang, B., Ma, J., Zeng, D., and Ciganic, J. Readmission Prediction for Patients with Heterogeneous Hazard: A Trajectory-Based Deep Learning Approach. (SSRN↗)

- Revising for the **2nd round of review at *Information Systems Research***
- Best Paper Runner-Up, *International Conference for Smart Health* 2018

Xie, J., Zhang, B., Brown, S. A., and Zeng, D. Write Like a Pro or an Amateur? The Effect of Medical Language Formality in Senior Care: A Multi-Method Approach. (SSRN↗)

- Revising for the **2nd round of review at *Information Systems Research***

Xie, J., Zhang, Z., Liu, X., and Zeng, D. Discovering Barriers to Opioid Addiction Treatment from Social Media: A Similarity Network-Based Deep Learning Approach. (SSRN↗)

- Under review at ***Information Systems Research***

[Pre-Ph.D.] **Xie, J.**, Zhu, W., Wang, K., and Pang, J. The Effect of Web Page Background Color on the Uniqueness of Customized Products.

- Under review at ***Information & Management***

COMPLETED PAPERS

Ebrahimi, M., **Xie, J.**, Chen, W., and Chen, H. The Impact of FBI Shutdown Operations on Cybercriminals and Product Sales in Dark Net Markets.

- Under final preparation for submission to ***MIS Quarterly***

RESEARCH IN PROGRESS

Xie, J. and Zeng, D. Predicting Parkinson's Disease Risk Using Wearable Sensor Data: A Multi-View Attention Convolutional Neural Network Approach.

- Method development, targeted at ***Information Systems Research***

Chen, W., Xie, K., Jing, D., and **Xie, J.** Customers at Fingertips: A Large-Scale Field Experiment Using Tap Stream Data on Mobile Apps.

- Preparing field experiment, targeted at ***Management Science***

Xie, J., Liu, X., and Zeng, D. Bridging the Vocabulary Gap in Online Knowledge Community: A Graph Convolutional Network Approach.

- Method development, targeted at ***Information Systems Research***

Xie, J., Zhang, Z., and Zeng, D. Modeling Parkinson's Disease Progression Using Wearable Sensor Data: A Generative Adversarial Network Approach.

- Method development, targeted at ***MIS Quarterly***

Xie, J., Zeng, D., and Ciganic, J. Predicting Opioid Overdose Using Large-Scale Medicare Data: A Recurrent Neural Networks Approach.

- Data analysis, targeted at ***Journal of the American Medical Association (JAMA)***

Xie, J., Zhan, Y., Zeng, D., and Ciganic, J. Predicting Prescription Opioid Misuse Using Deep Multi-Task Learning.

- Data analysis, targeted at ***Proceedings of the National Academy of Sciences (PNAS)***

CONFERENCE PROCEEDINGS AND WORKSHOPS (* PRESENTING AUTHOR)

*__Xie, J.__, Zhang, Z., Liu, X., and Zeng, D. (2019). Discovering Barriers to Opioid Addiction Treatment Using Similarity Network-Based Deep Learning. *China Summer Workshop on Information Management (CSWIM)* 2019. Shenzhen, China.

*__Xie, J.__, Liu, X., Zeng, D., and Fang, X. (2019). Understanding Medication Nonadherence Using Sentiment-Enriched Deep Learning. *China Summer Workshop on Information Management (CSWIM)* 2019. Shenzhen, China.

*__Xie, J.__, Zhang, Z., Liu, X., and Zeng, D. (2019). Understanding Opioid Addiction with Similarity Network-Based Deep Learning. *International Conference for Smart Health (ICSH)* 2019. Shenzhen, China.

*__Xie, J.__, Liu, X., Zeng, D., and Fang, X. (2019). Extracting Medication Nonadherence Reasons with Sentiment-Enriched Deep Learning. *International Conference for Smart Health (ICSH)* 2019. Shenzhen, China.

Xie, J.** and Zhang, B. (2018). Readmission Risk Prediction for Patients with Heterogeneous Hazard: A Trajectory-Aware Deep Learning Approach. ***International Conference on Information Systems (ICIS) *2018.* San Francisco, USA.

*__Xie, J.__, Zhang, B, and Zeng, D. (2018). Write Like a Pro or Amateur? The Effect of Online Caregiver Forum Writing Professionalism. ***Conference on Information Systems and Technology (CIST)*** 2018. Phoenix, USA.

Xie, J.**, Liu, X., Zeng, D., and Fang, X. (2018). Discovering Medication Nonadherence Reasons with Sentiment-Enriched Deep Learning Approach. ***INFORMS Workshop on Data Science *2018*. Phoenix, USA.

Xie, J.**, Zhang, B., and Zeng, D. (2018). Predicting Hospital Readmission Risk Using Trajectory-Based Deep Learning Approach. ***INFORMS Workshop on Data Science *2018*. Phoenix, USA.

Xie, J., Zhang, B., and Zeng, D. (2018). Readmission Prediction Using Trajectory-Based Deep Learning Approach. *International Conference for Smart Health (ICSH) 2018*. Wuhan, China.

- **Best Paper Runner-Up**

***Xie, J.**, Zhang, B., and Zeng, D. (2018). Predicting Hospital Readmission Risk Using Trajectory-Based Deep Learning Approach. *Conference on Health IT and Analytics (CHITA) 2018*. Washington, D.C., USA.

***Xie, J.**, Liu, X., Zeng, D., and Fang, X. (2018). Discovering Medication Nonadherence Reasons with Sentiment-Enriched Deep Learning Approach. *Conference on Health IT and Analytics (CHITA) 2018*. Washington, D.C., USA.

Xie, J., Zhang, B., and Zeng, D. (2018). Predicting Hospital Readmission with Deep Learning. *China Summer Workshop on Information Management (CSWIM) 2018*. Qingdao, China.

*__Xie, J__., Liu, X., Zeng, D., and Fang, X. (2017). Understanding Reasons for Medication Nonadherence: An Exploration in Social Media Using Sentiment-Enriched Deep Learning Approach. ***International Conference on Information Systems (ICIS)*** *2017*. Seoul, South Korea.

[Pre-Ph.D.] **Xie, J.**, Zhu, W., and Wang, K. (2015). Consumers' Purchase Intention of Online Product Customization Using Different Terminals with/without Default Template. *International Conference on HCI in Business 2015*. Los Angeles, USA.

[Pre-Ph.D.] ***Xie, J.**, Zhu, W., and Wang, K. (2014). An Improvement to E-commerce Recommendation Using Product Network Analysis. *Pacific-Asia Conference on Information Systems (PACIS) 2014*. Chengdu, China.

INVITED TALKS

2019 Center for Management Innovations in Healthcare, The University of Arizona.

2018 INFORMS Session: Using Long Short-Term Memory to Predict Hospital Readmission, Phoenix, USA.

2017 INFORMS Session: Understanding Reasons for Medication Nonadherence: An Exploration in Social Media Using Sentiment-Enriched Deep Learning Approach, Houston, USA.

2016 INFORMS Session: Mining E-cigarette Adverse Events in Social Media Using Bi-LSTM Recurrent Neural Network with Word Embedding Representation, Nashville, USA.

2015 Renmin Business School, Renmin University.

SELECTED AWARDS AND HONORS

2019 **Departmental Nominee for ICIS Doctoral Consortium, Munich, Germany**

2019 Doctoral Consortium Fellow, Americas Conference on Information Systems (AMCIS)

2019	James F. LaSalle Teaching Excellence Award, The University of Arizona
2018	Doctoral Consortium Fellow, Conference on Health IT and Analytics (CHITA)
2018	Best Paper Runner-Up, International Conference for Smart Health (ICSH)
2015	Nunamaker-Chen MIS Doctoral Scholarship, The University of Arizona
2015	Graduated with Honors, Renmin University
2012	Renmin University Scholarship of Excellent Academic Performance

GRANT WRITING EXPERIENCE

2017 NIH Grant. "A Social Media-Based Surveillance Platform for Opioid Research" ($3.3M). My Role: Assisting Grant Writer.

2016 DHS Grant. "DHS Center of Excellence for Homeland Security Quantitative Analysis" ($40M). My Role: Assisting Grant Writer.

TEACHING EXPERIENCE

Instructor, The University of Arizona

- MIS 111: Computers & Internetworked Society (Summer 2018)
  - **Teacher-course evaluation: 4.8 / 5.0**
  - **James F. LaSalle Teaching Excellence Award**
  - Class size: 33
- Introduction to Data Science (Fall 2018)
  - Master's level mini course
  - Class size: 52

Guest Lecturer, The University of Arizona

- MIS 611A: Design Science Methodologies (Fall 2017, Fall 2016)

Teaching Assistant, The University of Arizona

- MIS 507: Software Design and Integration (Fall 2016, Fall 2015)

Certificate in College Teaching, The University of Arizona

PROFESSIONAL EXPERIENCE

2015 - Present	Research Associate, Eller College of Management, The University of Arizona
2014 - 2015	Research Assistant, Renmin Business School, Renmin University

2014	Data Analyst, NetEase Inc. (NASDAQ: NTES), Beijing, China
2013	Data Analyst, Bank of China, Hunan, China
2013	Voluntary Math Teacher, Nairobi, Kenya
2012	Voluntary English Teacher, Luoyang, China

ACADEMIC SERVICE

Session Chair

- *INFORMS Annual Meeting (2018, 2017)*

Journal Reviewer

- *ACM Transactions on Management Information Systems (TMIS)*
- *Information & Management*
- *IEEE Intelligent Systems*

Conference Reviewer

- *International Conference on Information Systems (ICIS 2019, 2016)*
- *Pacific-Asia Conference on Information Systems (PACIS 2019)*
- *INFORMS Workshop on Data Science (DS 2018)*
- *Conference on Information Systems and Technology (CIST 2018)*
- *China Summer Workshop on Information Management (CSWIM 2018)*
- *European Conference on Information Systems (ECIS 2018)*
- *International Joint Conference on Artificial Intelligence (IJCHI 2016)*

SELECTED GRADUATE COURSEWORK

MIS

- Design Science Research Methodologies by Daniel Zeng
- Economics of Information Systems by Mingfeng Lin
- Behavioral Research Methodologies by Sue Brown
- Readings in MIS by Jay Nunamaker
- Models for Quantitative Analysis by Moshe Dror
- Database Management by Faiz Currim

Machine Learning

- Introduction to Machine Learning by Clayton Morrison
- Statistical Natural Language Processing by Sandiway Fong
- Statistical Machine Learning by Helen Zhang
- Advanced Computational Linguistics by Sandiway Fong
- Computational Linguistics by Sandiway Fong
- Statistical Foundations of Machine Learning by Junming Yin
- Topics in Data and Web Mining by Hsinchun Chen

Econometrics

- Econometrics — by Tiemen Woutersen
- Applied Econometric Analysis — by Satheesh Aradhyula

College Teaching

- Learner-Centered Teaching — by Erin Doktor
- College Teaching Practice — by Erin Doktor

SKILLS

Language	English, Mandarin
Deep Learning	TensorFlow, Keras, Theano
Programming	Python, Java, R, C
Analytics	Stata, SAS, PLS, SPSS
Database	MySQL, Oracle
Web Development	HTML5, CSS, Dreamweaver

AFFILIATIONS

Association for Information Systems (AIS)

The Institute for Operations Research and the Management Sciences (INFORMS)

REFERENCES

Daniel Zeng, Ph.D. (Dissertation Committee Chair)
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Fellow of AAAS & IEEE
Professor of MIS, Eller College of Management
The University of Arizona
Editor in Chief, ACM Transactions on MIS
President, IEEE ITS Society (2016 - 2017)

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